



**PHASE II ENVIRONMENTAL SITE
ASSESSMENT**

Former Ricoh Electronics, Inc. Facility
2300, 2310, and 2320 Red Hill Ave
Santa Ana, California

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July 24, 2018

Sign-off Sheet

This PHASE II ENVIRONMENTAL SITE ASSESSMENT was prepared by Stantec Consulting Services Inc. (Stantec) for RHW Holdings, LLC c/o: CT Realty. The material in it reflects Stantec's best judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Stantec accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

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Executive Summary

The Property consists of approximately 14.53 acres of land developed with a three vacant warehouse buildings and associated parking lots. A vacant lot is located in the northeastern corner of the Property. Surrounding properties are a mix of commercial and light industrial properties. A Property location map is illustrated on Figure 1. A Property map illustrating the main features of the Property is provided as Figure 2. Photographs taken during the site reconnaissance visit are provided in Appendix A.

The Property was formerly occupied by Ricoh Electronics, Inc., a manufacturer and distributor of thermal paper. The Property has been vacant for approximately 3 months. Large machines used during the thermal paper processing were formerly located in the western portion of Building 1. Concrete pads where large tanks and supporting machines were located are present along the exterior of Building 1 and 2. A former machine shop was located on the first floor and a former lab area was located on the second floor of Building 2. An enclosed storage area was also observed along the northern exterior of Building 2 which likely contained hazardous materials.

Stantec completed a Phase I Environmental Site Assessment (ESA) for the Property in June of 2018. The Phase I ESA identified the following environmental issues for which further assessment was recommended:

- **Former USTs.** According to the case closure summary, four underground storage tanks (USTs) including one 30,000-gallon; one 40,000-gallon; and two 50,000-gallon all containing isoparaffinic aliphatic hydrocarbons (ISOPAR G) were removed from the Property in 1998 and 2006. The ISOPAR G was used to manufacture toner. The reports reviewed indicate that a release of ISOPAR G occurred at the Property. This release affected soil and groundwater beneath the Property. In response to this detected release, the Property underwent remedial action. As part of that remediation, approximately 2,160,000-gallons of groundwater were extracted and treated using granulated activated carbon; 4,371-gallons of isopar were removed with the groundwater and disposed of off-site; and an unknown amount of impacted soil was excavated and disposed of off-site. The UST removal and subsequently soil sampling was overseen by the Regional Water Quality Control Board (RWQCB). Although a "no further action letter" letter was issued for the four USTs dated August 13, 2010, additional soil and soil vapor samples should be collected to evaluate if residual impacts are above levels that pose a risk to residential redevelopment.
- **Former Thermal Paper Processing.** The Property was formerly a manufacturer and distributor of thermal paper. Large machines were formerly located in the western portion of Building 1. Concrete pads where large tanks and supporting machines were located are present along the exterior of Building 1 and 2. An enclosed storage area

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was also observed along the northern exterior of Building 2 which likely contained hazardous materials. A cooling system and piping were also observed along the western exterior of Building 2. Although no significant surface staining was observed during the site reconnaissance the Property has been utilized as a thermal paper manufacturing facility since the circa 1985, therefore there is a potential for small releases to the subsurface beneath the equipment throughout the tenure. Stantec recommends a subsurface assessment to evaluate if a release occurred from this equipment inside of building 1 and outside where the tanks were located to evaluate if a release occurred that would affect the residential development of the Property.

- **Former Machine Shop.** A former machine shop was located in building 2. No significant staining was noted in the machine shop area, but it is suspected that oils and other chemicals may have been used in this area. Stantec recommends a subsurface assessment to evaluate if a release occurred from this machine shop area inside of building 2 to evaluate if a release occurred that would affect the residential development of the Property.
- **Former Toner Manufacturing Area.** It is reported that in the southeastern portion of building 3 toner was manufactured. The ISOPAR G noted above was used in this process in the building. Stantec recommends a subsurface assessment to evaluate if a release occurred from this manufacturing area inside of building 3 to evaluate if a release occurred that would affect the residential development of the Property.
- **Former Agricultural Use.** Based on review of historical documents including aerial photographs and topographic maps, the Property appears to have been used for light agricultural use until circa 1952. Accordingly, Stantec recommends performing a shallow soil assessment at the Property to evaluate whether residual pesticides or heavy metals associated with historical herbicide applications are present above regulatory screening levels, human health risk criteria for residential uses or California hazardous waste levels.
- **Adjacent Railroad Spur.** Based on review of historical documents including aerial photographs and topographic maps, a railroad spur appears along the western Property boundary. Accordingly, Stantec recommends performing a shallow soil assessment along the former spur to evaluate whether heavy metals associated with herbicide use may be present above regulatory screening levels, human health risk criteria for residential uses or California hazardous waste levels.
- **Neighboring Facility.** The District at Tustin Legacy retail shopping development is located southeast beyond Red Hill Avenue and was formerly a portion of the Marine Corps Air Station (MCAS) which has known impacts to soil and groundwater with contaminants including jet fuel, petroleum hydrocarbons, metals, and volatile organic compounds. Given the distance to the Property, the facility represents a potential vapor encroachment condition (PVEC) to the Property. Stantec recommends collecting soil vapor samples along the southeastern perimeter to determine if there is any impact to the soil vapor beneath the perimeter of the Property.

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For further evaluation of the above environmental issues, a Phase II ESA was conducted by Stantec on July 5 and July 6, 2018 and included collection of soil and soil vapor samples across the Property and the inspection of asphalt surfacing for the presence of stress-absorbing fabrics that may contain asbestos.

The results of the Phase II ESA are discussed below.

The laboratory test results are discussed below and a summary of detected concentrations in soil is provided in Tables 1 through 4. The complete laboratory analytical test results are presented on the laboratory data sheets attached as Appendix A. Figure 2 illustrates the locations of the assessment borings and asphalt cored locations.

The asphalt cores extracted from ten locations throughout paved areas of the Property found no evidence of stress-absorbing fabrics (i.e. Petromat®) in the asphalt. The results of shallow soil assessment to evaluate potential onsite impacts from former agricultural uses and the adjoining rail spur found no pesticides, arsenic, or lead above applicable residential human health screening levels. Based on that information no further assessment is recommended concerning form agricultural uses or the former rail spur.

The following items were identified as a concern to the site and further assessment is recommended to addresses these areas of concern (AOCs). Total petroleum hydrocarbons (TPH) or volatile organic compounds (VOCs) were found in soil or soil vapor at concentrations above applicable residential human health screening levels, at the following locations (refer to Figure 2):

- **AOC 1 - TPH impacts to soil (former USTs).** Three former underground storage tanks (UST) were located end to end near the Property boundary in the southwest portion of the Property. Stantec drilled borings B-13 through B-15 (see figure 2) where these former USTs were located. Fill containing sand and gravel was observed as UST excavation backfill at this location to a depth of approximately 14 feet below ground surface (bgs) at which point a filter fabric was observed. No VOC vapor readings were detected with the field instrument in the fill material, and one sample of the fill was analyzed from 10 feet bgs which reported no detectable concentrations of TPH or VOCs. Soil samples collected of the underlying soil at 15 feet bgs from each of the 3 borings advanced at the former UST location reported TPH concentrations in excess of typical regulatory action levels. As a result, it is anticipated that if the Property was to change use to residential, this impacted soil would most likely require removal to obtain a new “no further action” letter for the Property.

The approximate footprint of the former UST area, where the TPH soil impacts were detected, covers approximately 4,500 square feet. Beneath that backfill, it is estimated that approximately 5 feet of soil, impacted with TPH above residential screening levels, exists from 14 to 19 feet bgs within this footprint. Based on field screening methods and the soil sample collected of the backfill material overlying this impacted soil, it is not anticipated that the fill will require offsite disposal. Therefore, it is estimated that roughly 850 cubic yards of soil underlying the backfill would require excavation and offsite

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disposal should a new “no further action” letter be needed for the Property due to a change in land use.

- **AOC 2 - TPH impacts to soil (8,000-gallon diesel UST).** This area is a separate UST location near the northeast corner of Building 2 (borings B-12). Unlike the former UST site discussed above, no obvious indication of fill was noted in this location. However, the 15-foot soil sample reported TPH-(diesel) concentrations in excess of typical regulatory action levels. As a result, it is anticipated that if the Property was to change use to residential, this impacted soil would most likely require removal to obtain a new “no further action” letter for the Property.

Since the diesel UST was 8,000 gallons in capacity, the footprint expected for this size of tank is approximately 8 feet by 22 feet. It is estimated that approximately 5 feet of soil would need to be excavated from 14 to 19 feet bgs within this footprint. Based on field screening methods, it is not anticipated that the overlying backfill soil in the UST excavation will require offsite disposal. It is estimated that roughly 50 cubic yards of soil below the former UST at a depth of 14 to 19 feet bgs would require excavation and offsite disposal at this location should a new “no further action” letter be needed for the Property due to a change in land use.

Please note that the location of the diesel UST was approximated and based on an unscaled map showing a general location near the corner of Building 2. The area has also since been paved over with a concrete slab and as a result there is no surficial indication of where the UST was located. Furthermore, as of the date of this report, there have been no records found in agency files confirming that the diesel UST was removed. Records were requested from the Orange County Health Care Agency (OCHCA) during the Phase I ESA but have still not been received by Stantec. Responses from the OCHCA on records requests typically take 4 weeks or longer. The California Regional Water Quality Control Board (CRWQCB) has, however, issued closure for the known tank releases at the Site and no subsurface obstructions were identified during utility locating activities that were a part of the recent Phase II assessment. However, the closure letter from the CRWQCB does not specifically reference this diesel UST. Although it appears unlikely that the diesel UST remains at this location, its presence cannot be confirmed or ruled out without further review of records from OCHCA – a response from the OCHCA is expected in the coming weeks.

AOC 3 - VOC Impacts to Soil Vapor – Building 1. A large area within building 1 contained former equipment that had associated with it many drains, trenches, sumps, and other subsurface structures used to support the equipment. Soil vapor samples were collected at 5 feet bgs from borings B-3 through B-8 in the area of these structures. The samples collected reported various TPH related VOCs and also chlorinated VOCs (solvents), including tetrachlorethylene (PCE). None of the reported concentrations exceed their respective residential human health risk screening levels for soil vapor at 5 feet bgs.

No significant concentrations of TPH or VOCs were detected in soil in any of the borings advanced in or around the perimeter of Building 1. However, further assessment is

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recommended to (1) evaluate a potential soil source related to the vapor concentrations *which could require remedial action*, (2) to evaluate the distribution of PCE and other VOCs in soil and soil vapor within and around the perimeter of Building 1, and (3) to evaluate whether VOCs present in soil vapor would require mitigation through the use of vapor barrier systems installed below future buildings planned for the Property. Additional assessments should include soil and soil vapor sampling at additional drains, trenches, and sumps observed in the central to north portions of the building and drains observed within the equipment pad areas along the northwest and southwest walls of Building 1.

It has been a pleasure to provide environmental consulting services for you on this project and we look forward to working with you in the future. Should there be any questions regarding the information provided within the accompanying report, please do not hesitate to contact the undersigned at (909) 335-6116.

Respectfully submitted,
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INTRODUCTION

July 24, 2018

1.0 INTRODUCTION

This report documents the methodology and results of Phase II ESA completed by Stantec Consulting Services Inc. (Stantec) for the Property addressed at 2300 Red Hill Avenue, City of Santa Ana, County of Orange, California (the "Property").

The completed work was conducted in accordance with the *Proposal for Phase II Environmental Site Assessment* dated June 27, 2018. The scope of work and the results of the investigation are described in subsequent sections. The following subsections provide the site description and a summary of past operations.

1.1 PROPERTY DESCRIPTION AND OPERATIONS

The Property consists of approximately 14.53 acres of land developed with a three vacant warehouse buildings and associated parking lots. A vacant lot is located in the northeastern corner of the Property. A Property location map is illustrated on Figure 1.

The Property was formerly occupied by Ricoh Electronics, Inc., a manufacturer and distributor of thermal paper. The Property has been vacant for approximately 3 months. Large machines used during the thermal paper processing were formerly located in the western portion of Building 1. Concrete pads where large tanks and supporting machines were located are present along the exterior of Building 1 and 2. A former machine shop was located on the first floor and a former lab area was located on the second floor of Building 2. An enclosed storage area was also observed along the northern exterior of Building 2 which likely contained hazardous materials. A Property map illustrating the main features of the Property is provided as Figure 2.

1.2 PROPERTY GEOLOGY AND HYDROGEOLOGY

The Property is located in the Coastal Plain of Orange County which is underlain by a coastal alluvial plain in northwestern Orange County. According to boring logs dated September 29, 2009, the Property is underlain by silty sand, sandy silt, and clayey silt with sand to approximately 25 feet below ground surface (bgs).

The closest mapped recently active fault is the Newport-Inglewood-Rose Canyon Fault located approximately 5 miles southwest of the Property (CGS, 2010). According to official maps of California, the Site is not located within an Alquist-Priolo (AP) Earthquake Fault Zone boundary and a liquefaction zone (CDMG, 2000).

The Property is located within the Santa Ana Groundwater Basin. There are two aquifers were identified in the Santa Ana Groundwater Basin (Talbert Aquifer and Main Aquifer) with a shallow water-bearing zone overlying these within Holocene-aged alluvium and stream deposits.

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According to the case closure summary, depth to groundwater was measured at the Property between 5.67 and 13 feet below ground surface (bgs) with a groundwater flow to the south.

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BACKGROUND INFORMATION

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2.0 BACKGROUND INFORMATION

Stantec completed a Phase I Environmental Site Assessment (ESA) for the Property in June of 2018. The Phase I ESA identified the following environmental issues for which further assessment was recommended:

- **Former USTs.** According to the case closure summary, four underground storage tanks (USTs) including one 30,000-gallon; one 40,000-gallon; and two 50,000-gallon all containing isoparaffinic aliphatic hydrocarbons (ISOPAR G) were removed from the Property in 1998 and 2006. The ISOPAR G was used to manufacture toner. The reports reviewed indicate that a release of ISOPAR G occurred at the Property. This release affected soil and groundwater beneath the Property. In response to this detected release, the Property underwent remedial action. As part of that remediation, approximately 2,160,000-gallons of groundwater were extracted and treated using granulated activated carbon; 4,371-gallons of isopar were removed with the groundwater and disposed of off-site; and an unknown amount of impacted soil was excavated and disposed of off-site. The UST removal and subsequently soil sampling was overseen by the Regional Water Quality Control Board (RWQCB). Although a "no further action letter" letter was issued for the four USTs dated August 13, 2010, additional soil and soil vapor samples should be collected to evaluate if residual impacts are above levels that pose a risk to residential redevelopment.
- **Former Thermal Paper Processing.** The Property was formerly a manufacturer and distributor of thermal paper. Large machines were formerly located in the western portion of Building 1. Concrete pads where large tanks and supporting machines were located are present along the exterior of Building 1 and 2. An enclosed storage area was also observed along the northern exterior of Building 2 which likely contained hazardous materials. A cooling system and piping were also observed along the western exterior of Building 2. Although no significant surface staining was observed during the site reconnaissance the Property has been utilized as a thermal paper manufacturing facility since the circa 1985, therefore there is a potential for small releases to the subsurface beneath the equipment throughout the tenure. Stantec recommends a subsurface assessment to evaluate if a release occurred from this equipment inside of building 1 and outside where the tanks were located to evaluate if a release occurred that would affect the residential development of the Property.
- **Former Machine Shop.** A former machine shop was located in building 2. No significant staining was noted in the machine shop area, but it is suspected that oils and other chemicals may have been used in this area. Stantec recommends a subsurface assessment to evaluate if a release occurred from this machine shop area inside of building 2 to evaluate if a release occurred that would affect the residential development of the Property.

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- **Former Toner Manufacturing Area.** It is reported that in the southeastern portion of building 3 toner was manufactured. The ISOPAR G noted above was used in this process in the building. Stantec recommends a subsurface assessment to evaluate if a release occurred from this manufacturing area inside of building 3 to evaluate if a release occurred that would affect the residential development of the Property.
- **Historical Agricultural Use.** Based on review of historical documents including aerial photographs and topographic maps, the Property appears to have been used for light agricultural use until circa 1952. Accordingly, Stantec recommends performing a shallow soil assessment at the Property to evaluate whether residual pesticides or heavy metals associated with historical herbicide applications are present above regulatory screening levels, human health risk criteria for residential uses or California hazardous waste levels.
- **Adjacent Railroad Spur.** Based on review of historical documents including aerial photographs and topographic maps, a railroad spur appears along the western Property boundary. Accordingly, Stantec recommends performing a shallow soil assessment at the Property to evaluate whether residual heavy metals (arsenic and lead) associated with herbicide use along the railroad spur are present above regulatory screening levels, human health risk criteria for residential uses or California hazardous waste levels.
- **Neighboring Facility.** The District at Tustin Legacy retail shopping development is located southeast beyond Red Hill Avenue and was formerly a portion of the Marine Corps Air Station (MCAS) which has known impacts to soil and groundwater with contaminants including jet fuel, petroleum hydrocarbons, metals, and volatile organic compounds. Given the distance to the Property, the facility represents a potential vapor encroachment condition (PVEC) to the Property. Stantec recommends collecting soil vapor samples along the southeastern perimeter to determine if there is any impact to the soil vapor beneath the perimeter of the Property.

For further evaluation of the above environmental issues, Stantec submitted a *Proposal for Phase II Environmental Site Assessment* (Proposal) dated June 27, 2018. The Proposal was approved by the CT Realty and implemented by Stantec between July 5 and July 6, 2018. The scope of work, methodology, and results of the Phase I ESA are described in subsequent sections of this report.

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FIELD INVESTIGATION PROGRAM

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3.0 FIELD INVESTIGATION PROGRAM

3.1 PRE-DRILLING ACTIVITIES

Prior to the commencement of fieldwork activities Stantec made the following preparations:

- Underground Service Alert (USA) ticket numbers were acquired prior to commencement of drilling activities. The USA ticket number obtained for this phase of work was A181830057. In addition, Stantec visited the Property on July 5, 2018 to mark the proposed boring locations and to perform utility locating services at each boring with the aid of a private utility locating company.
- In accordance with federal OSHA regulations (29 CFR, Section 1910.120), Stantec developed a site-specific Health and Safety Plan (HASP) for the Property. All Stantec personnel and subcontractors associated with the project were required to be familiar with, and comply with, all provisions of the HASP.

3.2 SITE INVESTIGATION

Stantec provided the services of a field geologist or engineer to supervise and direct all onsite activities. All work was conducted under the supervision of a State of California registered professional and included the advancement fifteen (15) direct push soil borings (B-1 through B-15) and seven (7) shallow hand auger borings (HA-1 through HA-7). In addition, asphalt cores were obtained from ten (10) locations spaced throughout the Property and were inspected for the presence of stress-absorbing fabrics (see Figure 2). The boring locations and maximum depths that were performed during this assessment were as follows:

- Four (4) borings, B-12 through B-15, to fifteen (15) feet bgs at the locations of the former USTs;
- Nine (9) borings, B-3 through B-11, to 5.5 feet within portions of Buildings 1 through 3 where manufacturing and processing occurred, and outside of the buildings where releases would have been most likely to have occurred (i.e. former storage areas, equipment pads, etc);
- Two (2) borings, B-1 and B-2, to a depth of 5.5 feet bgs along the southeast Property boundary nearest to the former MCAS property;
- Four (4) hand auger borings, HA-1 through HA-4, advanced to 2 feet bgs to evaluate residual pesticides, arsenic, and lead from past agricultural uses. In addition, shallow soil samples were also collected at borings B-5 and B-9 for evaluation of pesticides, arsenic, and lead; and
- Three (3) hand auger borings, HA-5 through HA-7, advanced to 2 feet bgs to evaluate arsenic and lead concentrations in soil near the former adjacent railroad spur.

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3.2.1 Soil Boring and Sampling Procedures

Hand Auger Sampling

Borings HA-1 through HA-7 were advanced using a hand auger to collect soil samples at 0.5 to 1-foot bgs and 1.5 to 2.0-foot bgs. Upon extraction of the auger bucket at the prescribed sampling depths, the soils contained therein were packed into 8-ounce glass jars and labeled with the appropriate identification information (boring number, sample depth, sample collection date, and sample collection time). The samples were logged on a chain-of-custody form and placed in an ice-filled cooler for transport to the laboratory.

Soil samples collected from the 0.5 to 1.0-foot interval from HA-1 through HA-4 (former agricultural use) were analyzed for pesticides by EPA Method 8081A, and arsenic and lead by EPA Method 6010. Soil samples collected from the 0.5 to 1.0-foot interval from HA-5 through HA-7 (adjacent to the railroad spur) were analyzed for arsenic and lead by EPA Method 6010. All of the samples collected at 1.5 to 2.0 feet bgs were placed on hold at the laboratory in the event that the results of the 0.5 to 1.0-foot sample indicated the need for vertical definition. Based on the results of the 0.5 to 1.0-foot samples, none of the deeper samples were analyzed.

Soil borings B-9 and B-11 were also hand augered to 5.5 feet bgs due to access limitations related to the size of the direct push rig and low, narrow clearance of building doorways.

Direct Push Sampling

Prior to boring advancement, paved surfaces were cored to expose underlying soils. During advancement, sampling of subsurface soils were performed in five foot intervals starting at a depth of approximately five feet bgs. The fifteen direct push borings were advanced and sampled using a Geoprobe 6610DT rig equipped with 5-foot-long by 1.25-inch inner diameter sampler with acetate sample liners.

At each five-foot sampling interval, the sampler was driven into undisturbed soil using a hydraulic ram on the Geoprobe rig. Upon advancement of the sampler through the desired sampling depth interval, the sample liner was retrieved from the boring. The drilling and sampling sequence was then repeated for the entire depth of the boring. At borings B-5 and B-9, soil samples were collected from the 0.5 to 1.0-foot and 1.5 to 2.0-foot interval using the direct push sampling methods described above. The 0.5 to 1.0-foot samples from B-5 and B-9 were analyzed for pesticides, arsenic, and lead by the analytical methods discussed previously and in Section 4.0.

The soils from each of the direct push borings were visually examined by Stantec field personnel who classified the soils in accordance with the unified soil classification system (USCS). A photo-ionization detector (PID) was used to monitor/field screen the soils collected. Field screening was performed by removing the soil from the uppermost sample sleeve and placing it in a zip-lock type baggie. A PID probe was inserted into the baggie to monitor the headspace for VOC vapors.

Following classification and VOC vapor evaluation, soil samples were carefully packaged using Teflon sheets and end caps and sealed with non-VOC emitting tape. The sample containers

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were labeled with the appropriate identification information (boring number, sample depth, sample collection date, and sample collection time). The samples were logged on a chain-of-custody form and delivered to a state certified laboratory for analysis. Based on the field screening results, select soil samples collected from the direct push borings were analyzed for TPH by EPA Method 8015 and VOCs by EPA Method 8260b, as summarized in Section 4.0 and in Table 1.

Field Equipment Cleaning Procedures

To maintain quality control during drilling operations, all drill rods and reusable soil sampling equipment was decontaminated using a triple bucket rinse. Prior to drilling at a given location or sampling interval, all equipment coming in direct contact with soil samples was scrubbed with an Alconox scrub solution followed by a clean tap water rinse and then a final distilled water rinse. The disposable acetate soil sample liners were used for one sampling interval and then discarded. All decontamination water was contained in drums pending characterization and off-site disposal to an appropriate facility.

Personal Protective Equipment (PPE)

During drilling and sampling activities PPE used by Stantec personnel and the drilling subcontractor consisted of Level D equipment, as appropriate. This included reflective vests, steel toed boots, hard hats, safety glasses, and nitrile gloves.

3.2.2 Soil Vapor Probe Installation and Sampling

Stantec installed soil vapor sampling probes in all fifteen (15) direct push borings (B-1 through B-15) at the Property. The vapor sampling probes were installed at the 5-foot interval in all borings and also at 15 feet in borings B-12 through B-15. The locations of soil vapor borings are shown on Figure 2.

Soil Vapor Probe Installation and Sampling Procedures

Subsurface soil vapor sampling was performed in accordance with the July 2015 Department of Toxic Substances Control (DTSC) "Advisory - Active Soil Gas Investigations" (DTSC Advisory).

With the exception of soil vapor borings B-9 and B-11, all soil vapor borings were advanced from ground surface (i.e. no hand augering) using a 6610DT Geoprobe rig. Borings B-9 and B-11 were advanced with a hand auger due to access limitations mentioned previously in Section 3.2.1. Each sample probe was constructed with a 10-inch sampling screen set from 4.5 to 5.5 feet bgs (5-foot sample) and 14.5 to 15.5 feet (15-foot sample). Each of the sampling screens were connected to the ground surface via dedicated Nylaflow® nylon tubing. The annulus around the exposed probe tip was backfilled with a silica sand filter pack to an elevation of about six inches above the sampling screen. Above the filter pack, a 6 to 12-inch transition zone was constructed using dry bentonite granules. From that point to ground surface, hydrated bentonite granules were utilized to seal the annular space. At the surface, the exposed nylon tubing was capped with tight fitting plastic end-caps and labeled to indicate sampling depth. After placement of the soil vapor sample probes, subsurface conditions were allowed to equilibrate for 2 hours prior to leak testing and sample collection.

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Prior to sample collection, a shut-in test was performed consisting of an above-ground apparatus of valves, line, and fitting located downstream from the top of the probe. The line was evacuated to a measured vacuum of approximately 100 inches of water column and the vacuum was shut in with closed valves on opposite ends of the sampling train. A vacuum gauge connected to the line was observed for at least one minute for any signs of a loss in vacuum.

As specified in the DTSC Advisory a default purge of 3 volumes of the sampling system was performed prior to sample collection. This process included purging the sampling system (tubing, sample screen, and void space of sand pack and dry bentonite) using a flow rate of 200 milliliters per minute (ml/min) or less while maintaining a low vacuum of 100 inches of water or less. One replicate sample was collected and analyzed since only one day of sampling was necessary and the total number of samples to be collected was less than 20. Vapor samples were collected and analyzed for VOCs by EPA Method 8260b.

During soil vapor sampling a leak check was performed using isopropanol (IPA) as the tracer compound. The tracer compound was applied to a clean rag and situated around the monitoring point to evaluate seal integrity. Seal integrity was confirmed by the absence of the tracer compound in the collected samples.

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LABORATORY TESTING PROGRAM

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4.0 LABORATORY TESTING PROGRAM

A total of twenty (20) soil vapor samples collected during this investigation were delivered under chain-of-custody (Appendix B) to A&R Mobile Geochemistry (A&R) based out of Ontario, California. With the exception of four (4) samples, all of the soil vapor samples were analyzed onsite in a mobile laboratory for VOCs by EPA Method 8260b within 30 minutes of collection. The 4 samples (B-3-5, B-4-5, B-5-5, and B-7-5) that were not analyzed in a mobile laboratory were collected by the mobile laboratory chemist in Tedlar bags and analyzed within 6 hours of collection.

A total of thirty-eight (38) soil samples were collected for potential chemical analysis during this investigation and delivered under chain-of-custody (Appendix B) to Advanced Technology Laboratories (ATL) based out of Signal Hill, California. ATL is certified to perform hazardous waste testing by the State of California Department of Health Services, Environmental Laboratory Accreditation Program. Select soil samples were submitted for TPH and VOC analysis based on field screening measurements using a PID. Shallow soil samples (0.5 to 1.0 foot) collected in borings positioned to evaluate potential impacts from former agricultural and nearby railroad uses were submitted for analysis for pesticides and/or lead and arsenic. Deeper soil samples were not submitted for pesticides and/or lead and arsenic based on the result of the shallow sample concentrations reported (see Section 5.2)).

A table below provides a summary of the soil samples that were submitted for analysis based on field screening and/or prescribed depth interval discussed in the above paragraphs.

Boring ID	Sampling Depths	Pesticides EPA Method 8081A	Total Arsenic and Lead EPA Method 6010	TPH EPA Method 8260b	VOCs EPA Method 8260b
B-3-5	5			X	X
B-4-5	5			X	X
B-5-1	1	X	X		
B-5-5	5			X	X
B-6-5	5			X	X
B-7-5	5			X	X
B-8-5	5			X	X
B-9-1	1	X	X		
B-9-5	5			X	X
B-10-5	5			X	X
B-11-5	5			X	X
B-12-15	15			X	X
B-13-10	10			X	X
B-13-15	15			X	X

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Boring ID	Sampling Depths	Pesticides EPA Method 8081A	Total Arsenic and Lead EPA Method 6010	TPH EPA Method 8260b	VOCs EPA Method 8260b
B-14-15	15			X	X
B-15-15	15			X	X
HA-1	0.5 to 1	X	X		
HA-2	0.5 to 1	X	X		
HA-3	0.5 to 1	X	X		
HA-4	0.5 to 1	X	X		
HA-5	0.5 to 1		X		
HA-6	0.5 to 1		X		
HA-7	0.5 to 1		X		

NOTE: The "X" indicated in the table above denotes which of the collected samples was analyzed for the contaminant of concern. Samples without an "X" samples were placed on hold in the even that further characterization was needed.

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5.0 INVESTIGATION RESULTS

5.1 FIELD OBSERVATIONS

On July 5 and 6, 2018, Stantec personnel oversaw the advancement of fifteen (15) direct push soil borings (B-1 through B-15), seven (7) shallow hand auger borings (HA-1 through HA-7), and ten (10) asphalt cores at the Property. Soils encountered during the investigation consisted largely of clayey sand or sandy clay from surface to the maximum explored depth of 5.5 feet in borings B-1 through B-11, to approximately 7 feet bgs in boring B-12. Soil between 7 and 10.5 feet bgs at boring B-12 consisted of sand with gravel, and clay from 10.5 feet to the maximum explored depth of 15.5 feet. Soil collected from surface to the maximum explored depth of 15.5 feet in borings B-13 through B-15, at the location of the former USTs in the southwest portion of the Property, consisted of fine sand with gravel and intervals of fine gravel lenses which resulted in no recovery of a sufficient sample at 10 feet in boring B-15. In addition, a layer of fabric was observed at approximately 14 feet bgs at an observed contact point with the gravel layer and underlying silty sand with gravel. As a result, it appears that the former UST cavities were backfilled with a mixture of sand, native soil, and gravel underlain by a filter fabric. Groundwater was not encountered in any of the boreholes. No staining or hydrocarbon odors were observed in any of the boreholes except for the 15-foot bgs sample collected from B-13. PID measurements reported in this sample recorded a maximum concentration of 448 parts per million (ppm).

5.2 ANALYTICAL RESULTS

Laboratory test results from this assessment are summarized in attached Tables 1 through 4. The complete laboratory analytical test results, including the reporting limits, are presented on the laboratory data sheets attached as Appendix B. The laboratory test results from this phase of investigation are discussed below and were compared to the more conservative value between the Department of Toxic Substances Control (DTSC) Note 3 screening level for residential sites (DTSC, 2018) and the United States Environmental Protection Agency Regional Screening Level for residential sites (US EPA, 2018).

- Neighboring Marine Corps Air Station (MCAS) (B-1 and B-2)
No soil samples were collected at this location since the borings were performed to evaluate whether a potential vapor encroachment condition exists related to historic releases at the MCAS. The analytical results of the soil vapor samples collected from borings B-1 and B-2, along the southeast Property boundary, reported no VOCs above laboratory reporting limits. As a result, the former MCAS is considered unlikely to represent a vapor encroachment condition to the Property and no further investigation is recommended regarding this issue.
- Former Thermal Paper Processing (B-3 through B-8)
Soil samples collected at five feet bgs in each of the borings advanced in Building 1 and near the former equipment pads on the exterior perimeter of Buildings 1 and 2 reported

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no TPH in any of the soil samples analyzed. With regard to VOCs in soil, methylene chloride was detected at trace concentrations (0.006 to 0.072 mg/kg) in the 5-foot bgs samples collected from borings B-3 through B-7. The soil sample collected and analyzed from boring B-8 reported no VOCs above laboratory reporting limits (i.e. the results were "non-detect").

Soil vapor samples collected at 5 feet bgs from borings B-3 through B-8 reported ethylbenzene (max: 190 ug/m³), total xylenes (max: 630 ug/m³), tetrachloroethylene [PCE (max: 370 ug/m³)], 1,1-Dichloroethane [1,1-DCA (max: 310 ug/m³) and styrene (max: 30 ug/m³). None of the reported concentrations exceed their respective residential human health risk screening levels for soil vapor at 5 feet bgs. However, the concentrations of PCE just below the residential health risk screening level of 460 ug/m³ are indicative of a chlorinated solvent use and releases at the Property. Further assessment is recommended to evaluate the distribution of PCE and other VOCs in soil and soil vapor in within and around the perimeter of Building 1. Additional assessments should include soil and soil vapor sampling at additional drains, trenches, and sumps observed central to north central portion of the building and drains observed within the equipment pad areas along the northwest and southwest walls of Building 1.

It should be noted that the enclosed storage area referenced along the northeast exterior of Building 2 in the Phase I ESA report was also observed to be a former recycling storage area for plastic and paper. As a result, the boring originally planned at this location was relocated to a former diesel UST area that was historically located near the northeast corner of Building 2 (B-12).

- Former Machine Shop (B-9)
Soil and soil vapor samples collected from B-9 were non-detect for TPH and VOCs. As a result, no further investigation is recommended at this location.
- Former Cooling System and Piping Pad (B-10)
Other than a trace detection of methylene chloride at 0.021 mg/kg in the 5-foot soil sample, no VOCs or TPH were detected in soil or soil vapor in boring B-10. As a result, no further investigation is recommended at this location.
- Former Toner Manufacturing Area (B-11)
Other than a detection of TPH as diesel range organics (i.e. DRO) at 77 mg/kg in the 5-foot soil sample, no TPH or VOCs were detected in soil or soil vapor collected from boring B-11. The detected concentration of DRO is below the most conservative threshold (i.e. US EPA RSL) of 96 mg/kg. As a result, no further investigation is recommended at this location.
- Former USTs (B-12 through B-15)
Soil samples collected from 15-feet bgs at the location of the former USTs along the southwest Property boundary (B-13 through B-15) reported TPH as gasoline and diesel range organics (i.e. GRO and DRO) at maximum concentrations of 170 mg/kg and 430 mg/kg, respectively. The concentrations of GRO at 15 feet in B-13 exceed the US EPA

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residential RSLs of 82 mg/kg. The DRO concentrations at 15 feet in B-13 through B-15 all exceed the RSL of 96 mg/kg for DRO. Maximum concentrations of oil range organics (ORO) were detected in B-14-15 but were below the US EPA residential RSL 2,500 mg/kg. The 10-foot bgs sample analyzed from B-13 reported non-detect concentrations of TPH (GRO, DRO, and ORO) and VOCs. The 15-foot bgs soil samples from B-13 through B-15 reported trace concentrations of methylene chloride (0.110 mg/kg) that are well below the agency threshold of 1.8 mg/kg.

Soil vapor samples collected at 5 feet bgs from borings B-13 through B-15 reported toluene (max: 200 ug/m³ at B-14), ethylbenzene (max: 50 ug/m³), total xylenes (max: 260 ug/m³ at B-14), styrene (max: 30 ug/m³ at B-14), and 4-Isopropyltoluene (max: 80 ug/m³). None of the reported concentrations exceed their respective residential human health risk screening levels for soil vapor at 5 feet bgs. Soil vapor samples collected at 15 feet bgs reported GRO (i.e. TPHg) at 15,100 ug/m³ in B-13, toluene (max: 70 ug/m³ at B-14), total xylenes (max: 220 ug/m³ at B-13), PCE (max: 41 ug/m³ at B-14), and 4-Isopropyltoluene (max: 60 ug/m³ at B-14).

Soil samples collected from 15-feet bgs at the location of a former diesel UST at the northeast corner of Building 2 reported TPH as gasoline and diesel range organics (i.e. GRO and DRO) at maximum concentrations of 170 mg/kg and 430 mg/kg, respectively. The concentrations of GRO at 15 feet in B-13 exceed the US EPA residential RSLs of 82 mg/kg. The DRO concentrations at 15 feet in B-13 through B-15 all exceed the RSL of 96 mg/kg for DRO. Maximum concentrations of oil range organics (ORO) were detected in B-14-15 but were below the US EPA residential RSL 2,500 mg/kg. The 10-foot bgs sample analyzed from B-13 reported non-detect concentrations of TPH (GRO, DRO, and ORO) and VOCs. The 15-foot bgs soil samples from B-13 through B-15 reported trace concentrations of methylene chloride (0.110 mg/kg) that are well below the agency threshold of 1.8 mg/kg.

Soil vapor samples collect at 5 feet bgs from borings B-13 through B-15 reported toluene (max: 200 ug/m³ at B-14), ethylbenzene (max: 50 ug/m³), total xylenes (max: 260 ug/m³ at B-14), styrene (max: 30 ug/m³ at B-14), and 4-Isopropyltoluene (max: 80 ug/m³). None of the reported concentrations exceed their respective residential human health risk screening levels for soil vapor at 5 feet bgs. Soil vapor samples collected at 15 feet bgs reported GRO (i.e. TPHg) at 15,100 ug/m³ in B-13, toluene (max: 70 ug/m³ at B-14), total xylenes (max: 220 ug/m³ at B-13), PCE (max: 41 ug/m³ at B-14), and 4-Isopropyltoluene (max: 60 ug/m³ at B-14).

- Former Agricultural Use (HA-1 through HA-4, B-5 and B-9)

Low concentrations of residual 4,4'-DDD (max: 0.0025 mg/kg), 4,4'-DDT (max: 0.069 mg/kg), 4,4'-DDE (max: 0.0041 mg/kg), and Dieldrin (max: 0.003 mg/kg) were detected in various shallow soil samples collected at the 0.5 to 1.0-foot interval. However, the detected compounds were well below regulatory thresholds (DTSC Note 3 and US EPA RSLs) for residential use.

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With regard to metals (lead and arsenic) related to potential past herbicide applications, lead was detected at a maximum concentration of 7.5 mg/kg in shallow samples collected from 0.5 to 1.0 feet bgs. The maximum lead concentration detected is well below the residential threshold of 80 mg/kg. Arsenic was detected within naturally occurring background concentrations – which are conservatively considered background at concentrations as high as 11 mg/kg). The maximum arsenic concentration detected in shallow samples was 4.7 mg/kg.

Based on the results above, no further investigation is recommended with regard to residual pesticides, lead, and arsenic from past applications of pesticides and herbicides.

- Adjacent Railroad Spur (HA-5 through HA-7)
Lead was detected at a maximum concentration of 13 mg/kg in shallow samples collected from 0.5 to 1.0 feet bgs along the adjacent rail spur. The maximum lead concentration detected is well below the residential threshold of 80 mg/kg. Arsenic (typically used as an herbicide along railroads) was detected within naturally occurring background concentrations – which are conservatively considered background at concentrations as high as 11 mg/kg). The maximum arsenic concentration detected in shallow samples collected along the adjacent rail spur was 8.3 mg/kg. As a result, no further investigation is recommended along the adjacent rail spur.
- Stress Absorbing Fabrics in Asphalt (i.e. Petromat®)
Stantec inspected 10 asphalt cores extracted from paved parking and driveway areas spaced across the Property. No stress absorbing fabrics were observed in the asphalt cores collected.

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CONCLUSIONS AND RECOMMENDATIONS

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6.0 CONCLUSIONS AND RECOMMENDATIONS

The asphalt cores extracted from ten locations throughout paved areas of the Property found no evidence of stress-absorbing fabrics (i.e. Petromat®) in the asphalt. The results of shallow soil assessment to evaluate potential onsite impacts from former agricultural uses and the adjoining rail spur found no pesticides, arsenic, or lead above applicable residential human health screening levels. Based on that information no further assessment is recommended concerning form agricultural uses or the former rail spur.

The following items were identified as a concern to the site and further assessment is recommended to addresses these areas of concern (AOCs). Total petroleum hydrocarbons (TPH) or volatile organic compounds (VOCs) were found in soil or soil vapor at concentrations above applicable residential human health screening levels, at the following locations (refer to Figure 2):

- **AOC 1 - TPH impacts to soil (former USTs).** Three former underground storage tanks (UST) were located end to end near the Property boundary in the southwest portion of the Property. Stantec drilled borings B-13 through B-15 (see figure 2) where these former USTs were located. Fill containing sand and gravel was observed as UST excavation backfill at this location to a depth of approximately 14 feet below ground surface (bgs) at which point a filter fabric was observed. No VOC vapor readings were detected with the field instrument in the fill material, and one sample of the fill was analyzed from 10 feet bgs which reported no detectable concentrations of TPH or VOCs. Soil samples collected of the underlying soil at 15 feet bgs from each of the 3 borings advanced at the former UST location reported TPH concentrations in excess of typical regulatory action levels. As a result, it is anticipated that if the Property was to change use to residential, this impacted soil would most likely require removal to obtain a new "no further action" letter for the Property.

The approximate footprint of the former UST area, where the TPH soil impacts were detected, covers approximately 4,500 square feet. Beneath that backfill, it is estimated that approximately 5 feet of soil, impacted with TPH above residential screening levels, exists from 14 to 19 feet bgs within this footprint. Based on field screening methods and the soil sample collected of the backfill material overlying this impacted soil, it is not anticipated that the fill will require offsite disposal. Therefore, it is estimated that roughly 850 cubic yards of soil underlying the backfill would require excavation and offsite disposal should a new "no further action" letter be needed for the Property due to a change in land use.

- **AOC 2 - TPH impacts to soil (8,000-gallon diesel UST).** This area is a separate UST location near the northeast corner of Building 2 (borings B-12). Unlike the former UST site discussed above, no obvious indication of fill was noted in this location. However, the 15-foot soil sample reported TPH-(diesel) concentrations in excess of typical regulatory action levels. As a result, it is anticipated that if the Property was to change use to residential, this

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impacted soil would most likely require removal to obtain a new "no further action" letter for the Property.

Since the diesel UST was 8,000 gallons in capacity, the footprint expected for this size of tank is approximately 8 feet by 22 feet. It is estimated that approximately 5 feet of soil would need to be excavated from 14 to 19 feet bgs within this footprint. Based on field screening methods, it is not anticipated that the overlying backfill soil in the UST excavation will require offsite disposal. It is estimated that roughly 50 cubic yards of soil below the former UST at a depth of 14 to 19 feet bgs would require excavation and offsite disposal at this location should a new "no further action" letter be needed for the Property due to a change in land use.

Please note that the location of the diesel UST was approximated and based on an unscaled map showing a general location near the corner of Building 2. The area has also since been paved over with a concrete slab and as a result there is no surficial indication of where the UST was located. Furthermore, as of the date of this report, there have been no records found in agency files confirming that the diesel UST was removed. Records were requested from the Orange County Health Care Agency (OCHCA) during the Phase I ESA but have still not been received by Stantec. Responses from the OCHCA on records requests typically take 4 weeks or longer. The California Regional Water Quality Control Board (CRWQCB) has, however, issued closure for the known tank releases at the Site and no subsurface obstructions were identified during utility locating activities that were a part of the recent Phase II assessment. However, the closure letter from the CRWQCB does not specifically reference this diesel UST. Although it appears unlikely that the diesel UST remains at this location, its presence cannot be confirmed or ruled out without further review of records from OCHCA – a response from the OCHCA is expected in the coming weeks.

- **AOC 3 - VOC Impacts to Soil Vapor – Building 1.** A large area within building 1 contained former equipment that had associated with it many drains, trenches, sumps, and other subsurface structures used to support the equipment. Soil vapor samples were collected at 5 feet bgs from borings B-3 through B-8 in the area of these structures. The samples collected reported various TPH related VOCs and also chlorinated VOCs (solvents), including tetrachlorethylene (PCE). None of the reported concentrations exceed their respective residential human health risk screening levels for soil vapor at 5 feet bgs.

No significant concentrations of TPH or VOCs were detected in soil in any of the borings advanced in or around the perimeter of Building 1. However, further assessment is recommended to (1) evaluate a potential soil source related to the vapor concentrations which could require remedial action, (2) to evaluate the distribution of PCE and other VOCs in soil and soil vapor within and around the perimeter of Building 1, and (3) to evaluate whether VOCs present in soil vapor would require mitigation through the use of vapor barrier systems installed below future buildings planned for the Property. Additional assessments should include soil and soil vapor sampling at additional drains, trenches, and sumps observed in the central to north portions of the

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building and drains observed within the equipment pad areas along the northwest and southwest walls of Building 1.

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LIMITATIONS

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7.0 LIMITATIONS

The conclusions presented in this report are professional opinions based on data described in this report. The opinions of this report have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location and are subject to the following inherent limitations. Stantec makes no other warranty, either expressed or implied, concerning the conclusions and professional advice that is contained within the body of this report.

Inherent in most projects performed in a heterogeneous subsurface environment, continuing excavation and assessments may reveal findings that are different than those presented herein. This facet of the environmental profession should be considered when formulating professional opinions on the limited data collected on these projects.

This report has been issued with the clear understanding that it is the responsibility of the owner, or their representative, to make appropriate notifications to regulatory agencies. It is specifically not the responsibility of Stantec to conduct appropriate notifications as specified by current County and State regulations.

The information presented in this report is valid as of the date our exploration was performed. Property conditions may degrade with time; consequently, the findings presented herein are subject to change.

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REFERENCES

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8.0 REFERENCES

California Division of Mines and Geology (CDMG), 1966, Geologic Map of California, Santa Ana Sheet, scale 1:250,000.

California Geological Survey (CGS), 2002, California Geomorphic Provinces, Note 36.

_____, 2010a, Fault Activity Map of California, adjustable scale, <http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html>.

_____, 2010b, Alquist-Priolo Earthquake Fault Zones of California, http://www.quake.ca.gov/gmaps/ap/ap_maps.htm.

Stantec Consulting Services, Inc. (Stantec), 2018, DRAFT Phase I Environmental Site Assessment, 2300 Red Hill Ave, Santa Ana, California, dated July 2.

Stantec Consulting Services, Inc. (Stantec), 2018, Proposal for Phase II Environmental Site Assessment, 2300 Red Hill Ave, Santa Ana, California, dated June 27.

TABLES

Table 1
Summary of Soil Analytical Results - VOCs
2300 Red Hill Avenue
Santa Ana, California
Stantec Project No.: 185804220

Sample ID ⁽¹⁾	Sampling Date	Sampling Depth ⁽²⁾	TPH										
			EPA 8015										
			Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Oil Range Organics (ORO)	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	Methylene Chloride	Other VOCs
US EPA Residential Screening Levels or DTSC Note 3 Screening Levels (mg/kg)			82	96	2,500	0.33	1,100	5.8	550	0.59	0.94	1.8	varies
OCHCA Screening Levels (10 to 15 feet bgs)			100	1,000		see above							
Samples													
B-3-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.073	ND<varies
B-4-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0052	ND<0.0052	ND<0.0052	ND<0.0052	ND<0.0052	ND<0.0052	0.006	ND<varies
B-5-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.037	ND<varies
B-6-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.056	ND<varies
B-7-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0052	ND<0.0052	ND<0.0052	ND<0.0052	ND<0.0052	ND<0.0052	0.056	ND<varies
B-8-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<varies
B-9-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<varies
B-10-5	7/6/2018	5	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.021	ND<varies
B-11-5	7/6/2018	5	ND<1.0	77	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<varies
B-12-15	7/6/2018	15	1.8	190	75	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.020	ND<varies
B-13-10	7/6/2018	10	ND<1.0	ND<10	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<varies
B-13-15	7/6/2018	15	170	430	ND<10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.035	ND<varies
B-14-15	7/6/2018	15	ND<1.0	110	170	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<varies
B-15-15	7/6/2018	15	5.6	98	24	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.110	ND<varies

NOTES:

All concentrations are reported in mg/Kg

(1) Refer to Figure 2 for sampling locations

(2) Sampling depth is reported as feet below ground surface

< - Indicates the concentration was not detected above the laboratory method report limit.

BOLD - Indicates the concentration is above the laboratory reporting limit

Indicates the reported concentration exceed both the US EPA RSLs and OCHCA Screening Levels

Indicates the reported concentration exceeds the US EPA Residential RSLs

ABBREVIATIONS:

VOC - Volatile OrganicCompounds

mg/Kg - milligrams per kilogram

ND - Non Detect

Table 2
Summary of Soil Vapor Analytical Results - VOCs
2300 Red Hill Avenue
Santa Ana, California
Stantec Project No.: 185804220

Sample ID	Purge Volume ⁽²⁾	Sampling Date	Sampling Depth ⁽¹⁾	VOCs (ug/m ³)										
				8260B ⁽³⁾										
				TPHg (C4-C12)	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	1,1-DCA	Styrene	4-Isopropyltoluene	Other VOCs
DTSC HERO Note 3 or EPA RSLs for Residential Land Use (ug/m ³) ⁽⁴⁾				31,000	97	310,000	1,100	100,000	460	480	1,800	940,000	NE	varies
Samples														
B-1-5	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-2-5	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-3-5	3	7/6/2018	5	ND<5,000	ND<36	ND<50	ND<50	370	340	ND<50	ND<50	ND<50	ND<50	ND<varies
B-4-5	3	7/6/2018	5	ND<5,000	ND<36	ND<50	190	590	340	ND<50	ND<50	ND<50	ND<50	ND<varies
B-5-5	3	7/6/2018	5	ND<5,000	ND<36	ND<50	180	590	370	ND<50	ND<50	ND<50	ND<50	ND<varies
B-6-5	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	30	ND<25	ND<varies
B-7-5	3	7/6/2018	5	ND<5,000	ND<36	ND<50	190	630	ND<50	ND<50	ND<50	ND<50	ND<50	ND<varies
B-8-5	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	90	ND<25	220	ND<25	ND<25	ND<varies
B-8-5DUP	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	100	ND<25	310	ND<25	ND<25	ND<varies
B-9-5 ⁽⁵⁾	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-10-5	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-11-5 ⁽⁵⁾	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-12-5	3	7/6/2018	5	ND<5,000	ND<18	70	ND<25	ND<25	50	ND<25	ND<25	ND<25	ND<25	ND<varies
B-12-15	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-13-5	3	7/6/2018	5	ND<5,000	ND<18	90	ND<25	60	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-13-15	3	7/6/2018	15	15,100	ND<18	ND<25	ND<25	220	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-14-5	3	7/6/2018	5	ND<5,000	ND<18	200	50	260	ND<25	ND<25	ND<25	30	80	ND<varies
B-14-15	3	7/6/2018	15	ND<5,000	ND<18	70	ND<25	120	41	ND<25	ND<25	ND<25	60	ND<varies
B-15-5	3	7/6/2018	5	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies
B-15-15	3	7/6/2018	15	ND<5,000	ND<18	ND<25	ND<25	ND<75	ND<25	ND<25	ND<25	ND<25	ND<25	ND<varies

NOTES:

- (1) Sample depth is reported as feet below ground surface
- (2) A default of 3 purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents.
- (3) Concentrations reported in micrograms per cubic meter (ug/m³) and analyzed by GC/MS, EPA Method 8260B
- (4) DTSC HERO NOTE 3 or Environmental Protection Agency Regional Screening Levels for Commerical/ Industrial Soil Vapor, updated June 2015 (with an attenuation factor of 0.001)
- (5) Due to access limitations related to the size of the direct push rig, the vapor probe was installed using a hand auger and a 2-hour equilibration period prior to vapor sample collection

All vapor probes were installed in borings pushed directly from surface with the exception of B-9 and B-11, as noted above.

ND< - Indicates the concentration was not detected above the listed laboratory reporting limit

ABBREVIATIONS:

VOCs - Volatile Organic Compounds

REP - Replicate sample

TCE - trichloroethene

F11 - Trichlorofluoromethane

NA - Not Available

PCE - tetrachloroethene

TMB - Trimethylbenzene

BOLD - Indicates the concentration is above the laboratory reporting level

Table 3
Summary of Soil Analytical Results - Pesticides
2300 Red Hill Avenue
Santa Ana, California
Stantec Project No.: 185804220

Location	Depth ⁽¹⁾	Date	Pesticides (EPA Test Method 8081A)						
			4,4'-DDD	4,4'-DDE	4,4'-DDT	Total DDT Compounds	Dieldrin	Toxaphene	Other OCPs
Screening Levels for residential soil (mg/Kg) ⁽²⁾			2.3	2.0	1.9	NE	0.034	0.49	varies
CA Hazardous Waste Levels (mg/Kg)			1.0	1.0	1.0	1.0	8.0	5.0	varies
Samples									
HA-1-1	1	7/5/2018	ND<0.004	0.069	ND<0.004	0.069	ND<0.004	ND<0.100	ND<varies
HA-2-1	1	7/5/2018	ND<0.004	0.034	0.0041	0.038	ND<0.004	ND<0.100	ND<varies
HA-3-1	1	7/6/2018	ND<0.002	ND<0.002	ND<0.002	--	ND<0.002	ND<0.050	ND<varies
HA-4-1	1	7/5/2018	ND<0.002	0.019	ND<0.002	0.019	ND<0.100	ND<2.00	ND<varies
B-5-1	1	7/6/2018	0.0025	0.031	ND<0.002	0.034	0.003	ND<0.099	ND<varies
B-9-1	1	7/6/2018	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.050	ND<varies

NOTES:

(1) Sample depth is reported as feet below ground surface

(2) Screening level value is determined by the more conservative value from the California DTSC HERO Note 3 or USEPA RSLs.

All concentrations reported in milligrams of metal per kilogram of soil (mg/kg)

< - Indicates the concentration was not detected above the laboratory method reporting limit.

BOLD - Indicates the concentration is above the laboratory reporting level

ABBREVIATIONS:

DTSC - Department of Toxic Substances Control

HERO - Human and Ecological Risk Office

ND - Not detected

NE - Not established

USEPA RSL - United States Environmental Protection Agency
Regional Screening Levels, residential use

Table 4
Summary of Soil Analytical Results - Arsenic & Lead
2300 Red Hill Avenue
Santa Ana, California

Stantec Project No.: 185804220

Sample ID ⁽¹⁾	Sampling Date	Sampling Depth (ft)	Metals (mg/kg)	
			EPA 6010B ⁽²⁾	
			Arsenic	Lead
USEPA RSLs, Residential Use (mg/kg)			0.68	80
California Background Levels (mg/kg)			0.6-11.0	12.4 - 97.1
Samples				
HA-1-1	7/5/2018	1	4.3	7.5
HA-2-1	7/5/2018	1	4.7	6.5
HA-3-1	7/6/2018	1	4.0	6.1
HA-4-1	7/5/2018	1	4.6	6.5
HA-5-1	7/5/2018	1	8.3	13
HA-6-1	7/5/2018	1	4.6	6.7
HA-7-1	7/5/2018	1	5.4	5.6
B-5-1	7/6/2018	1	3.3	4.4
B-9-1	7/6/2018	1	2.0	1.1

NOTES:

(1) Refer to Figure 2 for sampling locations

(2) Concentrations reported in milligrams per kilogram (mg/kg), EPA Test Method 6010B

ND< - Indicates the concentration was not detected above the laboratory method reporting limit.

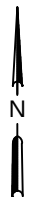
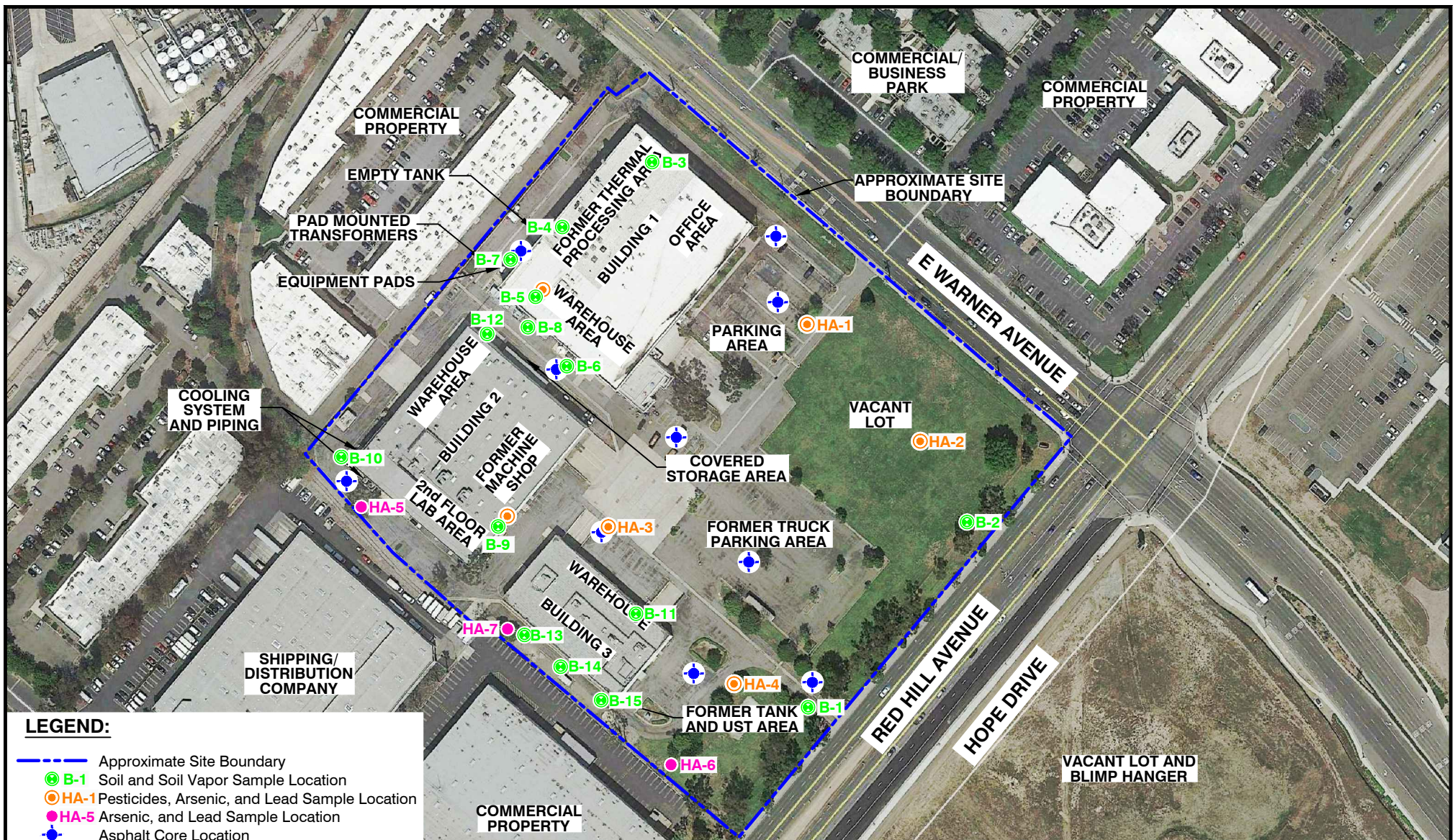
-- indicates the sample was not analyzed

BOLD - Indicates the concentration is above the laboratory reporting level

ABBREVIATIONS:

USEPA RSLs - United States Environmental Protection Agency Regional Screening Levels for Residential

FIGURES



0 200 400

APPROXIMATE SCALE IN FEET



FOR:

PHASE 1 ESA
2300 RED HILL AVENUE
SANTA ANA, CALIFORNIA

JOB NUMBER:
185804220

DRAWN BY:
STA

CHECKED BY:
DM

APPROVED BY:
DM

FIGURE:

2

DATE:
07/10/18

No warranty is made by Stantec Consulting Services Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.

APPENDIX A
BORING LOGS

PROJECT: **Former Ricoh Electronics**
 LOCATION: **2300 Red Hill Avenue**
 PROJECT NUMBER: **185804220**

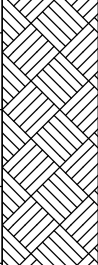
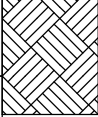
DRILLING: STARTED COMPLETED:
 INSTALLATION: STARTED COMPLETED:
 DRILLING COMPANY: **Interphase**
 DRILLING EQUIPMENT: **6610**
 DRILLING METHOD: **DPT**
 SAMPLING EQUIPMENT: **Acetate**

WELL / TEST PIT / BOREHOLE NO:

B-3 PAGE 1 OF 1



NORTHING (ft): EASTING (ft):
 LATITUDE: LONGITUDE:
 GROUND ELEV (ft): TOC ELEV (ft):
 INITIAL DTW (ft): **NE** BOREHOLE DEPTH (ft): **5.5**
 STATIC DTW (ft): **NE** WELL DEPTH (ft): ---
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **2.25**
 LOGGED BY: **DM** CHECKED BY: **KE**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 6" Concrete							 ← Capped with Concrete
		CL	CLAY ; CL; 10YR 3/1 very dark gray; high plasticity fines; moist; no odor							
5		SC	CLAYEY SAND ; SC; 10YR 4/4 dark yellowish brown; Fine grained sand; 25% fines; moist; no odor		1300 B-3-5			0.1	5	 ← Backfilled with hydrated granular bentonite
			Hole terminated at 5.5 feet.							
10									10	
15									15	

PROJECT: **Former Ricoh Electronics**
 LOCATION: **2300 Red Hill Avenue**
 PROJECT NUMBER: **185804220**

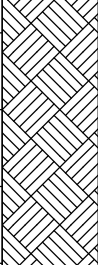
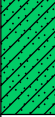
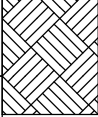
DRILLING: STARTED COMPLETED:
 INSTALLATION: STARTED COMPLETED:
 DRILLING COMPANY: **Interphase**
 DRILLING EQUIPMENT: **6610**
 DRILLING METHOD: **DPT**
 SAMPLING EQUIPMENT: **Acetate**

WELL / TEST PIT / BOREHOLE NO:

B-4 PAGE 1 OF 1



NORTHING (ft): EASTING (ft):
 LATITUDE: LONGITUDE:
 GROUND ELEV (ft): TOC ELEV (ft):
 INITIAL DTW (ft): **NE** BOREHOLE DEPTH (ft): **5.5**
 STATIC DTW (ft): **NE** WELL DEPTH (ft): ---
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **2.25**
 LOGGED BY: **DM** CHECKED BY: **KE**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 6" Concrete							 ← Capped with Concrete
		CL	CLAY ; CL; 10YR 3/1 very dark gray; high plasticity fines; moist; no odor							
5		SC	CLAYEY SAND ; SC; 10YR 4/4 dark yellowish brown; Fine grained sand; 25% fines; moist; no odor		1250 B-4-5			0.3	5	 ← Backfilled with hydrated granular bentonite
			Hole terminated at 5.5 feet.							
10									10	
15									15	

PROJECT: **Former Ricoh Electronics**
 LOCATION: **2300 Red Hill Avenue**
 PROJECT NUMBER: **185804220**

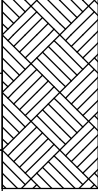
DRILLING: STARTED COMPLETED:
 INSTALLATION: STARTED COMPLETED:
 DRILLING COMPANY: **Interphase**
 DRILLING EQUIPMENT: **6610**
 DRILLING METHOD: **DPT**
 SAMPLING EQUIPMENT: **Acetate**

WELL / TEST PIT / BOREHOLE NO:

B-5 PAGE 1 OF 1



NORTHING (ft): EASTING (ft):
 LATITUDE: LONGITUDE:
 GROUND ELEV (ft): TOC ELEV (ft):
 INITIAL DTW (ft): **NE** BOREHOLE DEPTH (ft): **5.5**
 STATIC DTW (ft): **NE** WELL DEPTH (ft): ---
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **2.25**
 LOGGED BY: **DM** CHECKED BY: **KE**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 6" Concrete							
		CL	CLAY ; CL; 10YR 3/1 very dark gray; high plasticity fines; moist; no odor		1310 B-5-1					
					1315 B-5-2					
5		SC	CLAYEY SAND ; SC; 10YR 4/4 dark yellowish brown; Fine grained sand; 25% fines; moist; no odor		1320 B-5-5				5	
			Hole terminated at 5.5 feet.							
10									10	
15									15	

← Capped with Concrete

← Backfilled with hydrated granular bentonite

PROJECT: **Former Ricoh Electronics**
LOCATION: **2300 Red Hill Avenue**
PROJECT NUMBER: **185804220**

DRILLING: **STARTED**
INSTALLATION: **STARTED**

DRILLING COMPANY: **Interphase**

DRILLING EQUIPMENT: **6610**

DRILLING METHOD: **DPT**

SAMPLING EQUIPMENT: **Acetate**

COMPLETED:
COMPLETED:

WELL / TEST PIT / BOREHOLE NO:

B-6 PAGE 1 OF 1

NORTHING (ft):

LATITUDE:

GROUND ELEV (ft):

INITIAL DTW (ft): **NE**

STATIC DTW (ft): **NE**

WELL CASING DIAMETER (in): ---

LOGGED BY: **DM**

EASTING (ft):

LONGITUDE:

TOC ELEV (ft):

BOREHOLE DEPTH (ft): **5.5**

WELL DEPTH (ft): ---

BOREHOLE DIAMETER (in): **2.25**

CHECKED BY: **KE**



Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 4" Asphalt							
		CL	SANDY CLAY ; CL; 10YR 3/1 very dark gray; 30-35% fine grained sand; low plasticity fines; moist; no odor							
5					1200 B-6-5			0.0	5	
			Hole terminated at 5.5 feet.							
10									10	
15									15	

← Capped with Asphalt

← Backfilled with hydrated granular bentonite

PROJECT: **Former Ricoh Electronics**
LOCATION: **2300 Red Hill Avenue**
PROJECT NUMBER: **185804220**

DRILLING: STARTED
INSTALLATION: STARTED
DRILLING COMPANY: **Interphase**
DRILLING EQUIPMENT: **6610**
DRILLING METHOD: **DPT**
SAMPLING EQUIPMENT: **Acetate**

WELL / TEST PIT / BOREHOLE NO:

B-7 PAGE 1 OF 1



NORTHING (ft):
LATITUDE:
GROUND ELEV (ft):
INITIAL DTW (ft): **NE**
STATIC DTW (ft): **NE**
WELL CASING DIAMETER (in): ---
LOGGED BY: **DM**

EASTING (ft):
LONGITUDE:
TOC ELEV (ft):
BOREHOLE DEPTH (ft): **5.5**
WELL DEPTH (ft): ---
BOREHOLE DIAMETER (in): **2.25**
CHECKED BY: **KE**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 4" Asphalt							
		CL	CLAY ; CL; 10YR 3/1 very dark gray; high plasticity fines; moist; no odor							
5		SC	CLAYEY SAND ; SC; 10YR 4/4 dark yellowish brown; Fine grained sand; 25% fines; moist; no odor		1235 B-7-5			0.2	5	
			Hole terminated at 5.5 feet.							
10									10	
15									15	

← Capped with Asphalt

← Backfilled with hydrated granular bentonite

PROJECT: **Former Ricoh Electronics**
LOCATION: **2300 Red Hill Avenue**
PROJECT NUMBER: **185804220**

DRILLING: STARTED
INSTALLATION: STARTED
DRILLING COMPANY: **Interphase**
DRILLING EQUIPMENT: **6610**
DRILLING METHOD: **DPT**
SAMPLING EQUIPMENT: **Acetate**

WELL / TEST PIT / BOREHOLE NO:

B-8 PAGE 1 OF 1



NORTHING (ft):
LATITUDE:
GROUND ELEV (ft):
INITIAL DTW (ft): **NE**
STATIC DTW (ft): **NE**
WELL CASING DIAMETER (in): ---
LOGGED BY: **DM**

EASTING (ft):
LONGITUDE:
TOC ELEV (ft):
BOREHOLE DEPTH (ft): **5.5**
WELL DEPTH (ft): ---
BOREHOLE DIAMETER (in): **2.25**
CHECKED BY: **KE**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 4" Concrete							
5		SC	CLAYEY SAND ; SC; 10YR 3/1 very dark gray; fine to coarse sand; 25-30% fines; moist; no odor		1215 B-8-5			0.7	5	
			Hole terminated at 5.5 feet.							
10									10	
15									15	

PROJECT: **Former Ricoh Electronics**
 LOCATION: **2300 Red Hill Avenue**
 PROJECT NUMBER: **185804220**

DRILLING: STARTED
 INSTALLATION: STARTED
 DRILLING COMPANY: **Interphase**
 DRILLING EQUIPMENT: **6610**
 DRILLING METHOD: **DPT**
 SAMPLING EQUIPMENT: **Acetate**

WELL / TEST PIT / BOREHOLE NO:

B-9 PAGE 1 OF 1



NORTHING (ft):
 LATITUDE:
 GROUND ELEV (ft):
 INITIAL DTW (ft): **NE**
 STATIC DTW (ft): **NE**
 WELL CASING DIAMETER (in): ---
 LOGGED BY: **DM**

EASTING (ft):
 LONGITUDE:
 TOC ELEV (ft):
 BOREHOLE DEPTH (ft): **5.5**
 WELL DEPTH (ft): ---
 BOREHOLE DIAMETER (in): **2.25**
 CHECKED BY: **KE**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 6" Concrete							
		SC	CLAYEY SAND ; SC; 10YR 4/3 brown; fine to coarse sand; 25-30% fines; moist; no odor		1120 B-9-1			0.0		
					1125 B-9-2					
5			10YR 3/1 very dark gray; below 4.5 feet		1200 B-9-5			0.4	5	
			Hole terminated at 5.5 feet.							
10									10	
15									15	

← Capped with Concrete

← Backfilled with hydrated granular bentonite

PROJECT: **Former Ricoh Electronics**
 LOCATION: **2300 Red Hill Avenue**
 PROJECT NUMBER: **185804220**

DRILLING: STARTED COMPLETED:
 INSTALLATION: STARTED COMPLETED:
 DRILLING COMPANY: **Interphase**
 DRILLING EQUIPMENT: **6610**
 DRILLING METHOD: **DPT**
 SAMPLING EQUIPMENT: **Acetate**

WELL / TEST PIT / BOREHOLE NO:

B-10 PAGE 1 OF 1



NORTHING (ft): EASTING (ft):
 LATITUDE: LONGITUDE:
 GROUND ELEV (ft): TOC ELEV (ft):
 INITIAL DTW (ft): **NE** BOREHOLE DEPTH (ft): **5.5**
 STATIC DTW (ft): **NE** WELL DEPTH (ft): ---
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **2.25**
 LOGGED BY: **DM** CHECKED BY: **KE**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 4" Concrete							
			SAND WITH GRAVEL							
		SC	CLAYEY SAND ; SC; 10YR 3/1 very dark gray; fine to coarse sand; 25-30% fines; moist; no odor		B-10@ 1.5-1.5'			0.0		
5					0945 B-10-5			0.4	5	
			Hole terminated at 5.5 feet.							
10									10	
15									15	

← Capped with Asphalt

← Backfilled with hydrated granular bentonite

PROJECT: **Former Ricoh Electronics**
LOCATION: **2300 Red Hill Avenue**
PROJECT NUMBER: **185804220**

DRILLING: STARTED
INSTALLATION: STARTED
DRILLING COMPANY: **Interphase**
DRILLING EQUIPMENT: **6610**
DRILLING METHOD: **DPT**
SAMPLING EQUIPMENT: **Acetate**

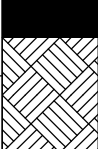
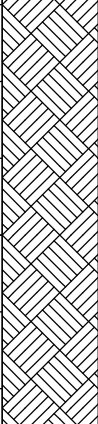
WELL / TEST PIT / BOREHOLE NO:

B-11 PAGE 1 OF 1



NORTHING (ft):
LATITUDE:
GROUND ELEV (ft):
INITIAL DTW (ft): **NE**
STATIC DTW (ft): **NE**
WELL CASING DIAMETER (in): ---
LOGGED BY: **DM**

EASTING (ft):
LONGITUDE:
TOC ELEV (ft):
BOREHOLE DEPTH (ft): **5.5**
WELL DEPTH (ft): ---
BOREHOLE DIAMETER (in): **2.25**
CHECKED BY: **KE**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 2' Concrete							 ← Capped with Concrete
5		SC	CLAYEY SAND ; SC; 10YR 4/3 brown; fine to coarse sand; 25-30% fines; moist; no odor							 ← Backfilled with hydrated granular bentonite
			Hole terminated at 7.5 feet.		1420 B-11-7			1.8		
10										
15										

PROJECT: **Former Ricoh Electronics**
 LOCATION: **2300 Red Hill Avenue**
 PROJECT NUMBER: **185804220**

DRILLING: STARTED
 INSTALLATION: STARTED
 DRILLING COMPANY: **Interphase**
 DRILLING EQUIPMENT: **6610**
 DRILLING METHOD: **DPT**
 SAMPLING EQUIPMENT: **Acetate**

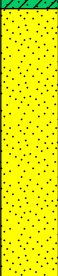
WELL / TEST PIT / BOREHOLE NO:

B-12 PAGE 1 OF 1



NORTHING (ft):
 LATITUDE:
 GROUND ELEV (ft):
 INITIAL DTW (ft): **NE**
 STATIC DTW (ft): **NE**
 WELL CASING DIAMETER (in): ---
 LOGGED BY: **DM**

EASTING (ft):
 LONGITUDE:
 TOC ELEV (ft):
 BOREHOLE DEPTH (ft): **15.0**
 WELL DEPTH (ft): ---
 BOREHOLE DIAMETER (in): **2.25**
 CHECKED BY: **KE**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 8" Concrete							
5		SC	CLAYEY SAND ; SC; 10YR 3/1 grayish brown; Trace gravel; fine to coarse grained sand; moist; no odor		1020 B-12-5			0.6	5	
10		SP	POORLY GRADED SAND WITH GRAVEL ; SP; 2.5Y 5/2 grayish brown; 15% fine gravel; fine to coarse grained sand; moist; no odor		1025 B-12-10			0.5	10	
15		CL	CLAY ; CL; 10YR 4/3 brown; Few fine grained sand; non-plastic fines; soft; moist; no odor		1030 B-12-15			0.8	15	
			Hole terminated at 15 feet.							

← Capped with Concrete

← Backfilled with hydrated granular bentonite

PROJECT: **Former Ricoh Electronics**
LOCATION: **2300 Red Hill Avenue**
PROJECT NUMBER: **185804220**

DRILLING: STARTED
INSTALLATION: STARTED
DRILLING COMPANY: **Interphase**
DRILLING EQUIPMENT: **6610**
DRILLING METHOD: **DPT**
SAMPLING EQUIPMENT: **Acetate**

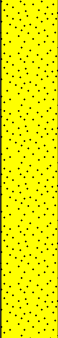
WELL / TEST PIT / BOREHOLE NO:

B-13 PAGE 1 OF 1



NORTHING (ft):
LATITUDE:
GROUND ELEV (ft):
INITIAL DTW (ft): **NE**
STATIC DTW (ft): **NE**
WELL CASING DIAMETER (in): ---
LOGGED BY: **DM**

EASTING (ft):
LONGITUDE:
TOC ELEV (ft):
BOREHOLE DEPTH (ft): **15.0**
WELL DEPTH (ft): ---
BOREHOLE DIAMETER (in): **2.25**
CHECKED BY: **KE**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 6" Gravel							
		SP	POORLY GRADED SAND WITH GRAVEL ; SP; 10YR 5/2 grayish brown; Some gravel; fine grained sand; few fines; moist; no odor Increase in % fines below 3 feet							
5		SC	CLAYEY SAND ; SC; 10YR 4/3 brown; Fine to medium grained sand; 20-30% clay; moist; no odor Fine gravel lenses present below 8 feet		0820 B-13-5			0.4	5	
10		SM	SILTY SAND ; SM; 10YR 3/2 very dark grayish brown; Fine to medium grained sand; 25% fines; moist; slight odor		0825 B-13-10			2.3	10	
15			Hole terminated at 15 feet.		0830 B-13-15			448	15	

PROJECT: **Former Ricoh Electronics**
LOCATION: **2300 Red Hill Avenue**
PROJECT NUMBER: **185804220**

DRILLING: STARTED
INSTALLATION: STARTED
DRILLING COMPANY: **Interphase**
DRILLING EQUIPMENT: **6610**
DRILLING METHOD: **DPT**
SAMPLING EQUIPMENT: **Acetate**

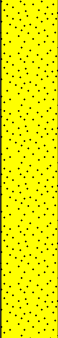
WELL / TEST PIT / BOREHOLE NO:

B-14 PAGE 1 OF 1



NORTHING (ft):
LATITUDE:
GROUND ELEV (ft):
INITIAL DTW (ft): **NE**
STATIC DTW (ft): **NE**
WELL CASING DIAMETER (in): ---
LOGGED BY: **DM**

EASTING (ft):
LONGITUDE:
TOC ELEV (ft):
BOREHOLE DEPTH (ft): **15.0**
WELL DEPTH (ft): ---
BOREHOLE DIAMETER (in): **2.25**
CHECKED BY: **KE**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 6" Gravel							
		SP	POORLY GRADED SAND WITH GRAVEL ; SP; 10YR 5/2 grayish brown; Some gravel; fine grained sand; few fines; moist; no odor Increase in % fines below 3 feet							
5		SC	CLAYEY SAND ; SC; 10YR 4/3 brown; Fine to medium grained sand; 20-30% clay; moist; no odor Fine gravel lenses present below 8 feet		0840 B-14-5			0.8	5	
10		SM	SILTY SAND ; SM; 10YR 3/2 very dark grayish brown; Fine to medium grained sand; 25% fines; moist; no odor		0845 B-14-10			0.9	10	
15			Hole terminated at 15 feet.		0850 B-14-15			0.9	15	

PROJECT: **Former Ricoh Electronics**
LOCATION: **2300 Red Hill Avenue**
PROJECT NUMBER: **185804220**

DRILLING: STARTED
INSTALLATION: STARTED
DRILLING COMPANY: **Interphase**
DRILLING EQUIPMENT: **6610**
DRILLING METHOD: **DPT**
SAMPLING EQUIPMENT: **Acetate**

WELL / TEST PIT / BOREHOLE NO:

B-15 PAGE 1 OF 1



NORTHING (ft):
LATITUDE:
GROUND ELEV (ft):
INITIAL DTW (ft): **NE**
STATIC DTW (ft): **NE**
WELL CASING DIAMETER (in): ---
LOGGED BY: **DM**

EASTING (ft):
LONGITUDE:
TOC ELEV (ft):
BOREHOLE DEPTH (ft): **15.0**
WELL DEPTH (ft): ---
BOREHOLE DIAMETER (in): **2.25**
CHECKED BY: **KE**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Geotechnical Lab Testing	Blow Count	PID Reading (ppmv)	Depth (feet)	Borehole Backfill
			Top 6" Gravel							
		SP	POORLY GRADED SAND ; SP; 10YR 5/2 grayish brown; fine grained sand; few fines; moist; no odor							
		SM	SILTY SAND ; SM; 10YR 3/3 dark brown; Fine gravel; 30-35% fines; moist; no odor							
5					0905 B-15-5			0.2	5	
			No Recovery except small amount of fine gravel							
10									10	
		SM	SILTY SAND WITH GRAVEL ; SM; 10YR 3/3 dark brown; moist; low recovery Hole terminated at 15 feet.		0915 B-15-15			5.6	15	

APPENDIX B
LABORATORY DATA SHEETS AND QA/QC RESULTS



July 06, 2018

Dion Monge
Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408
Tel: (909) 335-6116
Fax: (909) 335-6120

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 1802440
Client Reference : 185804220

Enclosed are the results for sample(s) received on July 05, 2018 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E Rodriguez', is placed above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Stantec

735 E. Carnegie Drive, Suite 280

San Bernardino , CA 92408

Project Number : 185804220

Report To : Dion Monge

Reported : 07/06/2018

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-2-1	1802440-01	Soil	7/05/18 9:50	7/05/18 16:15
HA-4-1	1802440-03	Soil	7/05/18 10:10	7/05/18 16:15
HA-6-1	1802440-05	Soil	7/05/18 10:30	7/05/18 16:15
HA-7-1	1802440-07	Soil	7/05/18 10:50	7/05/18 16:15
HA-5-1	1802440-09	Soil	7/05/18 11:25	7/05/18 16:15
HA-1-1	1802440-11	Soil	7/05/18 11:50	7/05/18 16:15



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Stantec
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Project Number : 185804220
Report To : Dion Monge
Reported : 07/06/2018

Client Sample ID HA-2-1

Lab ID: 1802440-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.7	1.0	1	B8G0101	07/06/2018	07/06/18 12:02	
Lead	6.5	1.0	1	B8G0101	07/06/2018	07/06/18 12:02	

Organochlorine Pesticides by EPA 8081

Analyst: CO

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:38	
4,4'-DDE	34	4.0	2	B8G0119	07/06/2018	07/06/18 12:38	
4,4'-DDT	4.1	4.0	2	B8G0119	07/06/2018	07/06/18 12:38	
Aldrin	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:38	
alpha-BHC	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:38	
alpha-Chlordane	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:38	
beta-BHC	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:38	
Chlordane [2C]	ND	17	2	B8G0119	07/06/2018	07/06/18 12:38	
delta-BHC	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:38	
Dieldrin [2C]	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:38	
Endosulfan I	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:38	
Endosulfan II	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:38	
Endosulfan sulfate	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:38	
Endrin	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:38	
Endrin aldehyde	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:38	
Endrin ketone	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:38	
gamma-BHC	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:38	
gamma-Chlordane [2C]	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:38	
Heptachlor	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:38	
Heptachlor epoxide	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:38	
Methoxychlor	ND	10	2	B8G0119	07/06/2018	07/06/18 12:38	
Toxaphene	ND	100	2	B8G0119	07/06/2018	07/06/18 12:38	
Surrogate: Decachlorobiphenyl	94.4 %	15 - 100		B8G0119	07/06/2018	07/06/18 12:38	
Surrogate: Tetrachloro-m-xylene	74.5 %	16 - 100		B8G0119	07/06/2018	07/06/18 12:38	



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San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/06/2018

Client Sample ID HA-4-1

Lab ID: 1802440-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	1.0	1	B8G0101	07/06/2018	07/06/18 12:06	
Lead	6.5	1.0	1	B8G0101	07/06/2018	07/06/18 12:06	

Organochlorine Pesticides by EPA 8081

Analyst: CO

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8G0119	07/06/2018	07/06/18 12:48	
4,4'-DDE	19	2.0	1	B8G0119	07/06/2018	07/06/18 12:48	
4,4'-DDT	ND	2.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Aldrin	ND	1.0	1	B8G0119	07/06/2018	07/06/18 12:48	
alpha-BHC	ND	1.0	1	B8G0119	07/06/2018	07/06/18 12:48	
alpha-Chlordane	ND	1.0	1	B8G0119	07/06/2018	07/06/18 12:48	
beta-BHC	ND	1.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Chlordane [2C]	ND	8.5	1	B8G0119	07/06/2018	07/06/18 12:48	
delta-BHC	ND	1.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Dieldrin [2C]	ND	2.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Endosulfan I	ND	1.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Endosulfan II	ND	2.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Endosulfan sulfate	ND	2.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Endrin	ND	2.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Endrin aldehyde	ND	2.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Endrin ketone	ND	2.0	1	B8G0119	07/06/2018	07/06/18 12:48	
gamma-BHC	ND	1.0	1	B8G0119	07/06/2018	07/06/18 12:48	
gamma-Chlordane	ND	1.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Heptachlor	ND	1.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Heptachlor epoxide	ND	1.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Methoxychlor	ND	5.0	1	B8G0119	07/06/2018	07/06/18 12:48	
Toxaphene	ND	50	1	B8G0119	07/06/2018	07/06/18 12:48	
Surrogate: Decachlorobiphenyl	60.1 %	15 - 100		B8G0119	07/06/2018	07/06/18 12:48	
Surrogate: Tetrachloro-m-xylene	51.7 %	16 - 100		B8G0119	07/06/2018	07/06/18 12:48	



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San Bernardino , CA 92408

Project Number : 185804220

Report To : Dion Monge

Reported : 07/06/2018

Client Sample ID HA-6-1

Lab ID: 1802440-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.6	1.0	1	B8G0101	07/06/2018	07/06/18 12:07	
Lead	6.7	1.0	1	B8G0101	07/06/2018	07/06/18 12:07	



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Project Number : 185804220

Report To : Dion Monge

Reported : 07/06/2018

Client Sample ID HA-7-1

Lab ID: 1802440-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	5.4	1.0	1	B8G0101	07/06/2018	07/06/18 12:08	
Lead	5.6	1.0	1	B8G0101	07/06/2018	07/06/18 12:08	



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Project Number : 185804220

Report To : Dion Monge

Reported : 07/06/2018

Client Sample ID HA-5-1

Lab ID: 1802440-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	8.3	1.0	1	B8G0101	07/06/2018	07/06/18 12:12	
Lead	13	1.0	1	B8G0101	07/06/2018	07/06/18 12:12	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/06/2018

Client Sample ID HA-1-1

Lab ID: 1802440-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.3	1.0	1	B8G0101	07/06/2018	07/06/18 12:13	
Lead	7.5	1.0	1	B8G0101	07/06/2018	07/06/18 12:13	

Organochlorine Pesticides by EPA 8081

Analyst: CO

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:59	
4,4'-DDE	69	4.0	2	B8G0119	07/06/2018	07/06/18 12:59	
4,4'-DDT [2C]	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:59	
Aldrin	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:59	
alpha-BHC	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:59	
alpha-Chlordane	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:59	
beta-BHC	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:59	
Chlordane [2C]	ND	17	2	B8G0119	07/06/2018	07/06/18 12:59	
delta-BHC	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:59	
Dieldrin [2C]	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:59	
Endosulfan I	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:59	
Endosulfan II	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:59	
Endosulfan sulfate	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:59	
Endrin	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:59	
Endrin aldehyde	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:59	
Endrin ketone	ND	4.0	2	B8G0119	07/06/2018	07/06/18 12:59	
gamma-BHC	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:59	
gamma-Chlordane [2C]	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:59	
Heptachlor	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:59	
Heptachlor epoxide	ND	2.0	2	B8G0119	07/06/2018	07/06/18 12:59	
Methoxychlor	ND	10	2	B8G0119	07/06/2018	07/06/18 12:59	
Toxaphene	ND	100	2	B8G0119	07/06/2018	07/06/18 12:59	
<i>Surrogate: Decachlorobiphenyl</i>	<i>66.1 %</i>	<i>15 - 100</i>		B8G0119	07/06/2018	<i>07/06/18 12:59</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>50.9 %</i>	<i>16 - 100</i>		B8G0119	07/06/2018	<i>07/06/18 12:59</i>	



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735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/06/2018

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0101 - EPA 3050B_S

Blank (B8G0101-BLK1)

Prepared: 7/6/2018 Analyzed: 7/6/2018

Arsenic	ND	1.0	0.12							
Lead	ND	1.0	0.18							

LCS (B8G0101-BS1)

Prepared: 7/6/2018 Analyzed: 7/6/2018

Arsenic	45.2935	1.0	0.12	50.0000		90.6	80 - 120			
Lead	45.7414	1.0	0.18	50.0000		91.5	80 - 120			

Matrix Spike (B8G0101-MS1)

Source: 1802440-01

Prepared: 7/6/2018 Analyzed: 7/6/2018

Arsenic	104.514	1.0	0.12	125.628	4.69033	79.5	49 - 99			
Lead	95.3837	1.0	0.18	125.628	6.47070	70.8	36 - 121			

Matrix Spike Dup (B8G0101-MSD1)

Source: 1802440-01

Prepared: 7/6/2018 Analyzed: 7/6/2018

Arsenic	99.9163	1.0	0.12	125.000	4.69033	76.2	49 - 99	4.50	20	
Lead	91.7945	1.0	0.18	125.000	6.47070	68.3	36 - 121	3.84	20	



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San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/06/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0119 - GCSEMI_PCB/PEST_S

Blank (B8G0119-BLK1)

Prepared: 7/6/2018 Analyzed: 7/6/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04
Methoxychlor	ND	5.0	0.10



Certificate of Analysis

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735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/06/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0119 - GCSEMI_PCB/PEST_S (continued)

Blank (B8G0119-BLK1) - Continued

Prepared: 7/6/2018 Analyzed: 7/6/2018

Methoxychlor [2C]	ND	5.0	0.10
Toxaphene	ND	50	8.2
Toxaphene [2C]	ND	50	8.2

<i>Surrogate: Decachlorobiphenyl</i>	<i>13.77</i>			<i>16.6667</i>	<i>82.6</i>	<i>15 - 100</i>
<i>Surrogate: Decachlorobiphenyl [</i>	<i>11.43</i>			<i>16.6667</i>	<i>68.6</i>	<i>15 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.31</i>			<i>16.6667</i>	<i>79.9</i>	<i>16 - 100</i>
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>12.77</i>			<i>16.6667</i>	<i>76.6</i>	<i>16 - 100</i>

LCS (B8G0119-BS1)

Prepared: 7/6/2018 Analyzed: 7/6/2018

4,4'-DDD	15.3640	2.0	0.10	16.6667	92.2	62 - 129
4,4'-DDD [2C]	13.5877	2.0	0.10	16.6667	81.5	62 - 129
4,4'-DDE	15.4342	2.0	0.07	16.6667	92.6	65 - 117
4,4'-DDE [2C]	13.6867	2.0	0.07	16.6667	82.1	65 - 117
4,4'-DDT	16.3517	2.0	0.14	16.6667	98.1	35 - 136
4,4'-DDT [2C]	14.1650	2.0	0.14	16.6667	85.0	35 - 136
Aldrin	15.0442	1.0	0.08	16.6667	90.3	67 - 110
Aldrin [2C]	13.8110	1.0	0.08	16.6667	82.9	67 - 110
alpha-BHC	14.9927	1.0	0.04	16.6667	90.0	69 - 110
alpha-BHC [2C]	14.2102	1.0	0.04	16.6667	85.3	69 - 110
alpha-Chlordane	15.2563	1.0	0.04	16.6667	91.5	65 - 114
alpha-Chlordane [2C]	13.4538	1.0	0.04	16.6667	80.7	65 - 114
beta-BHC	14.1852	1.0	0.04	16.6667	85.1	64 - 108
beta-BHC [2C]	13.4773	1.0	0.04	16.6667	80.9	64 - 108
delta-BHC	15.7162	1.0	0.04	16.6667	94.3	44 - 110
delta-BHC [2C]	14.2785	1.0	0.04	16.6667	85.7	44 - 110
Dieldrin	14.4758	2.0	0.05	16.6667	86.9	63 - 107
Dieldrin [2C]	13.0205	2.0	0.05	16.6667	78.1	63 - 107
Endosulfan I	14.5068	1.0	0.04	16.6667	87.0	63 - 103
Endosulfan I [2C]	13.3328	1.0	0.04	16.6667	80.0	63 - 103
Endosulfan II	16.4173	2.0	0.10	16.6667	98.5	62 - 122
Endosulfan II [2C]	13.7400	2.0	0.10	16.6667	82.4	62 - 122
Endosulfan sulfate	16.0592	2.0	0.06	16.6667	96.4	53 - 127
Endosulfan Sulfate [2C]	12.4987	2.0	0.06	16.6667	75.0	53 - 127
Endrin	15.8918	2.0	0.08	16.6667	95.4	66 - 120
Endrin [2C]	14.0262	2.0	0.08	16.6667	84.2	66 - 120
Endrin aldehyde	17.0908	2.0	0.09	16.6667	103	67 - 121
Endrin aldehyde [2C]	14.8108	2.0	0.09	16.6667	88.9	67 - 121
Endrin ketone	15.4610	2.0	0.07	16.6667	92.8	41 - 146
Endrin ketone [2C]	12.9800	2.0	0.07	16.6667	77.9	41 - 146
gamma-BHC	14.5117	1.0	0.05	16.6667	87.1	67 - 109
gamma-BHC [2C]	13.6357	1.0	0.05	16.6667	81.8	67 - 109



Certificate of Analysis

Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/06/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0119 - GCSEMI_PCB/PEST_S (continued)

LCS (B8G0119-BS1) - Continued

Prepared: 7/6/2018 Analyzed: 7/6/2018

gamma-Chlordane	14.7303	1.0	0.04	16.6667		88.4	63 - 110		
gamma-Chlordane [2C]	13.3453	1.0	0.04	16.6667		80.1	63 - 110		
Heptachlor	15.0490	1.0	0.07	16.6667		90.3	67 - 120		
Heptachlor [2C]	14.6575	1.0	0.07	16.6667		87.9	67 - 120		
Heptachlor epoxide	14.2068	1.0	0.04	16.6667		85.2	62 - 108		
Heptachlor epoxide [2C]	13.0803	1.0	0.04	16.6667		78.5	62 - 108		
Methoxychlor	17.9970	5.0	0.10	16.6667		108	47 - 152		
Methoxychlor [2C]	15.4032	5.0	0.10	16.6667		92.4	47 - 152		
Surrogate: Decachlorobiphenyl	15.09			16.6667		90.6	15 - 100		
Surrogate: Decachlorobiphenyl [	11.68			16.6667		70.1	15 - 100		
Surrogate: Tetrachloro-m-xylene	14.14			16.6667		84.8	16 - 100		
Surrogate: Tetrachloro-m-xylene	14.82			16.6667		88.9	16 - 100		

Matrix Spike (B8G0119-MS1)

Source: 1802438-07

Prepared: 7/6/2018 Analyzed: 7/6/2018

4,4'-DDD	14.7773	2.0	0.10	16.6667	ND	88.7	0 - 127		
4,4'-DDD [2C]	13.2742	2.0	0.10	16.6667	ND	79.6	0 - 127		
4,4'-DDE	14.6650	2.0	0.07	16.6667	ND	88.0	0 - 125		
4,4'-DDE [2C]	12.5095	2.0	0.07	16.6667	ND	75.1	0 - 125		
4,4'-DDT	15.7610	2.0	0.14	16.6667	ND	94.6	0 - 103		
4,4'-DDT [2C]	14.1287	2.0	0.14	16.6667	ND	84.8	0 - 103		
Aldrin	14.0578	1.0	0.08	16.6667	ND	84.3	6 - 104		
Aldrin [2C]	12.7175	1.0	0.08	16.6667	ND	76.3	6 - 104		
alpha-BHC	14.0527	1.0	0.04	16.6667	ND	84.3	0 - 114		
alpha-BHC [2C]	13.1478	1.0	0.04	16.6667	ND	78.9	0 - 114		
alpha-Chlordane	14.6163	1.0	0.04	16.6667	ND	87.7	0 - 110		
alpha-Chlordane [2C]	12.5740	1.0	0.04	16.6667	ND	75.4	0 - 110		
beta-BHC	14.3778	1.0	0.04	16.6667	ND	86.3	0 - 129		
beta-BHC [2C]	12.8942	1.0	0.04	16.6667	ND	77.4	0 - 129		
delta-BHC	15.0957	1.0	0.04	16.6667	ND	90.6	18 - 99		
delta-BHC [2C]	13.8382	1.0	0.04	16.6667	ND	83.0	18 - 99		
Dieldrin	13.5912	2.0	0.05	16.6667	ND	81.5	0 - 124		
Dieldrin [2C]	12.3005	2.0	0.05	16.6667	ND	73.8	0 - 124		
Endosulfan I	13.7815	1.0	0.04	16.6667	ND	82.7	0 - 106		
Endosulfan I [2C]	12.0782	1.0	0.04	16.6667	ND	72.5	0 - 106		
Endosulfan II	15.7180	2.0	0.10	16.6667	ND	94.3	20 - 130		
Endosulfan II [2C]	13.4557	2.0	0.10	16.6667	ND	80.7	20 - 130		
Endosulfan sulfate	15.5837	2.0	0.06	16.6667	ND	93.5	24 - 119		
Endosulfan Sulfate [2C]	12.6810	2.0	0.06	16.6667	ND	76.1	24 - 119		
Endrin	15.3427	2.0	0.08	16.6667	ND	92.1	0 - 135		
Endrin [2C]	13.7973	2.0	0.08	16.6667	ND	82.8	0 - 135		
Endrin aldehyde	16.3017	2.0	0.09	16.6667	ND	97.8	19 - 132		



Certificate of Analysis

Stantec
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San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/06/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0119 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8G0119-MS1) - Continued

Source: 1802438-07

Prepared: 7/6/2018 Analyzed: 7/6/2018

Endrin aldehyde [2C]	10.4587	2.0	0.09	16.6667	ND	62.8	19 - 132		
Endrin ketone	14.8412	2.0	0.07	16.6667	ND	89.0	7 - 141		
Endrin ketone [2C]	12.9493	2.0	0.07	16.6667	ND	77.7	7 - 141		
gamma-BHC	14.0852	1.0	0.05	16.6667	ND	84.5	0 - 117		
gamma-BHC [2C]	12.8230	1.0	0.05	16.6667	ND	76.9	0 - 117		
gamma-Chlordane	14.0847	1.0	0.04	16.6667	ND	84.5	0 - 156		
gamma-Chlordane [2C]	11.5048	1.0	0.04	16.6667	ND	69.0	0 - 156		
Heptachlor	14.1047	1.0	0.07	16.6667	ND	84.6	3 - 112		
Heptachlor [2C]	13.2710	1.0	0.07	16.6667	ND	79.6	3 - 112		
Heptachlor epoxide	13.3332	1.0	0.04	16.6667	ND	80.0	0 - 118		
Heptachlor epoxide [2C]	11.7590	1.0	0.04	16.6667	ND	70.6	0 - 118		
Methoxychlor	17.0397	5.0	0.10	16.6667	ND	102	0 - 161		
Methoxychlor [2C]	15.3182	5.0	0.10	16.6667	ND	91.9	0 - 161		
Surrogate: Decachlorobiphenyl	12.23			16.6667		73.4	15 - 100		
Surrogate: Decachlorobiphenyl [	9.518			16.6667		57.1	15 - 100		
Surrogate: Tetrachloro-m-xylene	10.87			16.6667		65.2	16 - 100		
Surrogate: Tetrachloro-m-xylene	9.698			16.6667		58.2	16 - 100		

Matrix Spike Dup (B8G0119-MSD1)

Source: 1802438-07

Prepared: 7/6/2018 Analyzed: 7/6/2018

4,4'-DDD	16.0753	2.0	0.10	16.6667	ND	96.5	0 - 127	8.41	20
4,4'-DDD [2C]	13.7095	2.0	0.10	16.6667	ND	82.3	0 - 127	3.23	20
4,4'-DDE	15.4853	2.0	0.07	16.6667	ND	92.9	0 - 125	5.44	20
4,4'-DDE [2C]	13.0785	2.0	0.07	16.6667	ND	78.5	0 - 125	4.45	20
4,4'-DDT	16.5512	2.0	0.14	16.6667	ND	99.3	0 - 103	4.89	20
4,4'-DDT [2C]	14.5047	2.0	0.14	16.6667	ND	87.0	0 - 103	2.63	20
Aldrin	14.2387	1.0	0.08	16.6667	ND	85.4	6 - 104	1.28	20
Aldrin [2C]	13.1890	1.0	0.08	16.6667	ND	79.1	6 - 104	3.64	20
alpha-BHC	15.0153	1.0	0.04	16.6667	ND	90.1	0 - 114	6.62	20
alpha-BHC [2C]	14.4732	1.0	0.04	16.6667	ND	86.8	0 - 114	9.60	20
alpha-Chlordane	15.0313	1.0	0.04	16.6667	ND	90.2	0 - 110	2.80	20
alpha-Chlordane [2C]	12.7588	1.0	0.04	16.6667	ND	76.6	0 - 110	1.46	20
beta-BHC	15.6082	1.0	0.04	16.6667	ND	93.6	0 - 129	8.21	20
beta-BHC [2C]	14.2913	1.0	0.04	16.6667	ND	85.7	0 - 129	10.3	20
delta-BHC	15.5668	1.0	0.04	16.6667	ND	93.4	18 - 99	3.07	20
delta-BHC [2C]	14.4810	1.0	0.04	16.6667	ND	86.9	18 - 99	4.54	20
Dieldrin	14.4397	2.0	0.05	16.6667	ND	86.6	0 - 124	6.05	20
Dieldrin [2C]	12.4210	2.0	0.05	16.6667	ND	74.5	0 - 124	0.975	20
Endosulfan I	14.2713	1.0	0.04	16.6667	ND	85.6	0 - 106	3.49	20
Endosulfan I [2C]	12.5358	1.0	0.04	16.6667	ND	75.2	0 - 106	3.72	20
Endosulfan II	16.7313	2.0	0.10	16.6667	ND	100	20 - 130	6.25	20
Endosulfan II [2C]	13.9028	2.0	0.10	16.6667	ND	83.4	20 - 130	3.27	20



Certificate of Analysis

Stantec
735 E. Carnegie Drive, Suite 280
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Project Number : 185804220
Report To : Dion Monge
Reported : 07/06/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0119 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8G0119-MSD1) - Continued

Source: 1802438-07

Prepared: 7/6/2018 Analyzed: 7/6/2018

Endosulfan sulfate	16.0617	2.0	0.06	16.6667	ND	96.4	24 - 119	3.02	20	
Endosulfan Sulfate [2C]	13.3915	2.0	0.06	16.6667	ND	80.3	24 - 119	5.45	20	
Endrin	16.4050	2.0	0.08	16.6667	ND	98.4	0 - 135	6.69	20	
Endrin [2C]	13.9617	2.0	0.08	16.6667	ND	83.8	0 - 135	1.18	20	
Endrin aldehyde	17.1942	2.0	0.09	16.6667	ND	103	19 - 132	5.33	20	
Endrin aldehyde [2C]	11.6812	2.0	0.09	16.6667	ND	70.1	19 - 132	11.0	20	
Endrin ketone	15.2263	2.0	0.07	16.6667	ND	91.4	7 - 141	2.56	20	
Endrin ketone [2C]	14.2893	2.0	0.07	16.6667	ND	85.7	7 - 141	9.84	20	
gamma-BHC	14.2685	1.0	0.05	16.6667	ND	85.6	0 - 117	1.29	20	
gamma-BHC [2C]	13.8565	1.0	0.05	16.6667	ND	83.1	0 - 117	7.75	20	
gamma-Chlordane	14.7700	1.0	0.04	16.6667	ND	88.6	0 - 156	4.75	20	
gamma-Chlordane [2C]	12.0785	1.0	0.04	16.6667	ND	72.5	0 - 156	4.87	20	
Heptachlor	14.4080	1.0	0.07	16.6667	ND	86.4	3 - 112	2.13	20	
Heptachlor [2C]	13.9202	1.0	0.07	16.6667	ND	83.5	3 - 112	4.77	20	
Heptachlor epoxide	14.2083	1.0	0.04	16.6667	ND	85.2	0 - 118	6.36	20	
Heptachlor epoxide [2C]	11.8862	1.0	0.04	16.6667	ND	71.3	0 - 118	1.08	20	
Methoxychlor	19.5780	5.0	0.10	16.6667	ND	117	0 - 161	13.9	20	
Methoxychlor [2C]	17.1647	5.0	0.10	16.6667	ND	103	0 - 161	11.4	20	
Surrogate: Decachlorobiphenyl	13.57			16.6667		81.4	15 - 100			
Surrogate: Decachlorobiphenyl [	11.06			16.6667		66.3	15 - 100			
Surrogate: Tetrachloro-m-xylene	12.41			16.6667		74.5	16 - 100			
Surrogate: Tetrachloro-m-xylene	12.58			16.6667		75.5	16 - 100			



Certificate of Analysis

Stantec

735 E. Carnegie Drive, Suite 280

San Bernardino , CA 92408

Project Number : 185804220

Report To : Dion Monge

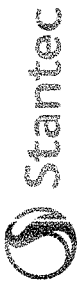
Reported : 07/06/2018

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.



CHAIN OF CUSTODY FORM

735 E. Carnegie Dr., Suite 280, San Bernardino, CA 92408 (909)335-6116, Fax (909) 335-6120

180 2440

Page 1 of 1

Client Name/Address: Stantec 735 E. Carnegie Dr, Suite 280 San Bernardino, CA 92408		Project/PO Number: 185804220		Analysis Required											
Project Manager: Dion Monge		Phone Number: (909)556-6516		Fax Number: (909)335-6120		TPH (GRO/DRO/ORO) EPA Method 8015		VOCs by EPA Method 8260B		Organochlorine pesticides EPA Method 8081		Total Lead and total arsenic EPA Method 6010		Special Instructions	
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives									
HA-2-1	soil	8oz jar	1	7-5-18	0950	—				X	X	X			
HA-2-2					0955					X	X	X			HOLD
HA-4-1					1010					X	X	X			HOLD
HA-4-2					1020					X	X	X			HOLD
HA-6-1					1030					X	X	X			HOLD
HA-6-2					1040					X	X	X			HOLD
HA-7-1					1050					X	X	X			HOLD
HA-7-2					1055					X	X	X			HOLD
HA-8-1					1125					X	X	X			HOLD
HA-8-2					1135					X	X	X			HOLD
HA-1-1					1150					X	X	X			HOLD
HA-1-2					1205					X	X	X			HOLD
Relinquished By: [Signature]						Date/Time: 7-5-18 1615	Received By: [Signature]						Date/Time: 7-5-18 1615	Time: (Check) 5 days	
Relinquished By: [Signature]						Date/Time: 7-6-18 1712	Received By: [Signature]						Date/Time: 7-5-18 1712	Time: (Check) 5 days	
Relinquished By: [Signature]						Date/Time:	Received in Lab By:						Date/Time:	Sample Integrity: (Check) 6.0 normal	

By relinquishing samples, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for this is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.



July 10, 2018

Dion Monge
Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408
Tel: (909) 335-6116
Fax: (909) 335-6120

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 1802450
Client Reference : 185804220

Enclosed are the results for sample(s) received on July 06, 2018 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez", with a stylized flourish at the end.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

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Certificate of Analysis

Stantec

735 E. Carnegie Drive, Suite 280

San Bernardino , CA 92408

Project Number : 185804220

Report To : Dion Monge

Reported : 07/10/2018

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-3-1	1802450-01	Soil	7/06/18 8:10	7/06/18 14:40
B-13-10	1802450-04	Soil	7/06/18 8:25	7/06/18 14:40
B-13-15	1802450-05	Soil	7/06/18 8:30	7/06/18 14:40
B-14-15	1802450-08	Soil	7/06/18 8:50	7/06/18 14:40
B-15-15	1802450-10	Soil	7/06/18 9:15	7/06/18 14:40
B-10-5	1802450-11	Soil	7/06/18 9:45	7/06/18 14:40
B-12-15	1802450-14	Soil	7/06/18 10:30	7/06/18 14:40
B-9-1	1802450-15	Soil	7/06/18 11:20	7/06/18 14:40
B-9-5	1802450-17	Soil	7/06/18 12:00	7/06/18 14:40
B-8-5	1802450-18	Soil	7/06/18 12:15	7/06/18 14:40
B-7-5	1802450-19	Soil	7/06/18 12:35	7/06/18 14:40
B-4-5	1802450-20	Soil	7/06/18 12:50	7/06/18 14:40
B-3-5	1802450-21	Soil	7/06/18 13:00	7/06/18 14:40
B-6-5	1802450-22	Soil	7/06/18 12:00	7/06/18 14:40
B-5-1	1802450-23	Soil	7/06/18 13:10	7/06/18 14:40
B-5-5	1802450-25	Soil	7/06/18 13:20	7/06/18 14:40
B-11-5	1802450-26	Soil	7/06/18 14:20	7/06/18 14:40

CASE NARRATIVE

Documentation pertaining to additional analyses/change order available upon request.



Certificate of Analysis

Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID HA-3-1

Lab ID: 1802450-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	4.0	1.0	1	B8G0147	07/09/2018	07/09/18 11:51	
Lead	6.1	1.0	1	B8G0147	07/09/2018	07/09/18 11:51	

Organochlorine Pesticides by EPA 8081

Analyst: CO

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8G0138	07/07/2018	07/08/18 16:56	
4,4'-DDE [2C]	ND	2.0	1	B8G0138	07/07/2018	07/08/18 16:56	
4,4'-DDT	ND	2.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Aldrin	ND	1.0	1	B8G0138	07/07/2018	07/08/18 16:56	
alpha-BHC	ND	1.0	1	B8G0138	07/07/2018	07/08/18 16:56	
alpha-Chlordane	ND	1.0	1	B8G0138	07/07/2018	07/08/18 16:56	
beta-BHC	ND	1.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Chlordane [2C]	ND	8.5	1	B8G0138	07/07/2018	07/08/18 16:56	
delta-BHC	ND	1.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Dieldrin	ND	2.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Endosulfan I	ND	1.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Endosulfan II	ND	2.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Endosulfan sulfate	ND	2.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Endrin	ND	2.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Endrin aldehyde	ND	2.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Endrin ketone	ND	2.0	1	B8G0138	07/07/2018	07/08/18 16:56	
gamma-BHC	ND	1.0	1	B8G0138	07/07/2018	07/08/18 16:56	
gamma-Chlordane [2C]	ND	1.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Heptachlor	ND	1.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Heptachlor epoxide	ND	1.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Methoxychlor	ND	5.0	1	B8G0138	07/07/2018	07/08/18 16:56	
Toxaphene	ND	50	1	B8G0138	07/07/2018	07/08/18 16:56	
Surrogate: Decachlorobiphenyl	63.4 %	15 - 100		B8G0138	07/07/2018	07/08/18 16:56	
Surrogate: Tetrachloro-m-xylene	49.6 %	16 - 100		B8G0138	07/07/2018	07/08/18 16:56	



Certificate of Analysis

Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-13-10

Lab ID: 1802450-04

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B8G0137	07/07/2018	07/07/18 18:03	
Surrogate: 4-Bromofluorobenzene	93.2 %	57 - 144		B8G0137	07/07/2018	07/07/18 18:03	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	ND	10	1	B8G0162	07/09/2018	07/09/18 16:32	
ORO	ND	10	1	B8G0162	07/09/2018	07/09/18 16:32	
Surrogate: p-Terphenyl	120 %	58 - 172		B8G0162	07/09/2018	07/09/18 16:32	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 18:28	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-13-10

Lab ID: 1802450-04

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 18:28	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 18:28	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 18:28	
Methylene chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	



Certificate of Analysis

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735 E. Carnegie Drive, Suite 280
San Bernardino , CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-13-10

Lab ID: 1802450-04

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 18:28	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 18:28	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:28	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>101 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	07/07/18 18:28	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>92.2 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	07/07/18 18:28	
<i>Surrogate: Dibromofluoromethane</i>	<i>113 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	07/07/18 18:28	
<i>Surrogate: Toluene-d8</i>	<i>101 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	07/07/18 18:28	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-13-15

Lab ID: 1802450-05

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VW

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	170	50	50	B8G0141	07/09/2018	07/09/18 10:28	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>42.4 %</i>	<i>57 - 144</i>		B8G0141	07/09/2018	07/09/18 10:28	S7

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	430	10	1	B8G0162	07/09/2018	07/09/18 13:21	
ORO	ND	10	1	B8G0162	07/09/2018	07/09/18 13:21	
<i>Surrogate: p-Terphenyl</i>	<i>119 %</i>	<i>58 - 172</i>		B8G0162	07/09/2018	07/09/18 13:21	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 18:47	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-13-15

Lab ID: 1802450-05

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 18:47	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 18:47	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 18:47	
Methylene chloride	35	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	



Certificate of Analysis

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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-13-15

Lab ID: 1802450-05

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 18:47	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 18:47	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 18:47	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>102 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	07/07/18 18:47	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>67.6 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	07/07/18 18:47	
<i>Surrogate: Dibromofluoromethane</i>	<i>114 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	07/07/18 18:47	
<i>Surrogate: Toluene-d8</i>	<i>99.8 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	07/07/18 18:47	



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Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-14-15

Lab ID: 1802450-08

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B8G0137	07/07/2018	07/07/18 18:40	
Surrogate: 4-Bromofluorobenzene	102 %	57 - 144		B8G0137	07/07/2018	07/07/18 18:40	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	110	10	1	B8G0162	07/09/2018	07/09/18 17:06	
ORO	170	10	1	B8G0162	07/09/2018	07/09/18 17:06	
Surrogate: p-Terphenyl	68.2 %	58 - 172		B8G0162	07/09/2018	07/09/18 17:06	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 19:05	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	



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Project Number : 185804220
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Client Sample ID B-14-15

Lab ID: 1802450-08

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 19:05	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 19:05	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 19:05	
Methylene chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-14-15

Lab ID: 1802450-08

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 19:05	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 19:05	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:05	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>104 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	<i>07/07/18 19:05</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>98.5 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	<i>07/07/18 19:05</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>113 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	<i>07/07/18 19:05</i>	
<i>Surrogate: Toluene-d8</i>	<i>104 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	<i>07/07/18 19:05</i>	



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Client Sample ID B-15-15

Lab ID: 1802450-10

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	5.6	1.0	1	B8G0137	07/07/2018	07/07/18 18:59	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>63.2 %</i>	<i>57 - 144</i>		<i>B8G0137</i>	<i>07/07/2018</i>	<i>07/07/18 18:59</i>	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	98	10	1	B8G0162	07/09/2018	07/09/18 16:49	
ORO	24	10	1	B8G0162	07/09/2018	07/09/18 16:49	
<i>Surrogate: p-Terphenyl</i>	<i>109 %</i>	<i>58 - 172</i>		<i>B8G0162</i>	<i>07/09/2018</i>	<i>07/09/18 16:49</i>	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 19:24	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-15-15

Lab ID: 1802450-10

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 19:24	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 19:24	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 19:24	
Methylene chloride	110	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	



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Client Sample ID B-15-15

Lab ID: 1802450-10

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 19:24	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 19:24	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>105 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	<i>07/07/18 19:24</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>97.1 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	<i>07/07/18 19:24</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>112 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	<i>07/07/18 19:24</i>	
<i>Surrogate: Toluene-d8</i>	<i>98.5 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	<i>07/07/18 19:24</i>	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-10-5

Lab ID: 1802450-11

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B8G0137	07/07/2018	07/07/18 19:18	
Surrogate: 4-Bromofluorobenzene	103 %	57 - 144		B8G0137	07/07/2018	07/07/18 19:18	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	ND	10	1	B8G0162	07/09/2018	07/09/18 13:39	
ORO	ND	10	1	B8G0162	07/09/2018	07/09/18 13:39	
Surrogate: p-Terphenyl	116 %	58 - 172		B8G0162	07/09/2018	07/09/18 13:39	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 19:43	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	



Certificate of Analysis

Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-10-5

Lab ID: 1802450-11

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 19:43	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 19:43	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 19:43	
Methylene chloride	21	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	



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Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino , CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-10-5

Lab ID: 1802450-11

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 19:43	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 19:43	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 19:43	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>109 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	<i>07/07/18 19:43</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>102 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	<i>07/07/18 19:43</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>118 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	<i>07/07/18 19:43</i>	
<i>Surrogate: Toluene-d8</i>	<i>105 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	<i>07/07/18 19:43</i>	



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Stantec	Project Number : 185804220
735 E. Carnegie Drive, Suite 280	Report To : Dion Monge
San Bernardino , CA 92408	Reported : 07/10/2018

Client Sample ID B-12-15

Lab ID: 1802450-14

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	1.8	1.0	1	B8G0137	07/07/2018	07/07/18 19:36	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>91.3 %</i>	<i>57 - 144</i>		<i>B8G0137</i>	<i>07/07/2018</i>	<i>07/07/18 19:36</i>	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	190	10	1	B8G0162	07/09/2018	07/09/18 14:30	
ORO	75	10	1	B8G0162	07/09/2018	07/09/18 14:30	
<i>Surrogate: p-Terphenyl</i>	<i>118 %</i>	<i>58 - 172</i>		<i>B8G0162</i>	<i>07/09/2018</i>	<i>07/09/18 14:30</i>	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 20:02	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	



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Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino , CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-12-15

Lab ID: 1802450-14

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 20:02	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 20:02	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 20:02	
Methylene chloride	20	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	



Certificate of Analysis

Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino , CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-12-15

Lab ID: 1802450-14

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 20:02	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 20:02	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:02	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>108 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	07/07/18 20:02	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>107 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	07/07/18 20:02	
<i>Surrogate: Dibromofluoromethane</i>	<i>119 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	07/07/18 20:02	
<i>Surrogate: Toluene-d8</i>	<i>101 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	07/07/18 20:02	



Certificate of Analysis

Stantec
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San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-9-1

Lab ID: 1802450-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.0	1.0	1	B8G0147	07/09/2018	07/09/18 11:54	
Lead	1.1	1.0	1	B8G0147	07/09/2018	07/09/18 11:54	

Organochlorine Pesticides by EPA 8081

Analyst: CO

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:06	
4,4'-DDE	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:06	
4,4'-DDT	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Aldrin	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:06	
alpha-BHC	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:06	
alpha-Chlordane	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:06	
beta-BHC	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Chlordane	ND	8.5	1	B8G0138	07/07/2018	07/08/18 17:06	
delta-BHC	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Dieldrin	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Endosulfan I	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Endosulfan II	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Endosulfan sulfate	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Endrin	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Endrin aldehyde	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Endrin ketone	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:06	
gamma-BHC	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:06	
gamma-Chlordane	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Heptachlor	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Heptachlor epoxide	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Methoxychlor	ND	5.0	1	B8G0138	07/07/2018	07/08/18 17:06	
Toxaphene	ND	50	1	B8G0138	07/07/2018	07/08/18 17:06	
Surrogate: Decachlorobiphenyl	79.7 %	15 - 100		B8G0138	07/07/2018	07/08/18 17:06	
Surrogate: Tetrachloro-m-xylene	64.4 %	16 - 100		B8G0138	07/07/2018	07/08/18 17:06	



Certificate of Analysis

Stantec	Project Number : 185804220
735 E. Carnegie Drive, Suite 280	Report To : Dion Monge
San Bernardino , CA 92408	Reported : 07/10/2018

Client Sample ID B-9-5

Lab ID: 1802450-17

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B8G0137	07/07/2018	07/07/18 19:55	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>103 %</i>	<i>57 - 144</i>		B8G0137	07/07/2018	07/07/18 19:55	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	ND	10	1	B8G0162	07/09/2018	07/09/18 13:56	
ORO	ND	10	1	B8G0162	07/09/2018	07/09/18 13:56	
<i>Surrogate: p-Terphenyl</i>	<i>117 %</i>	<i>58 - 172</i>		B8G0162	07/09/2018	07/09/18 13:56	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 20:21	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	



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Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-9-5

Lab ID: 1802450-17

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 20:21	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 20:21	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 20:21	
Methylene chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-9-5

Lab ID: 1802450-17

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 20:21	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 20:21	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:21	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>103 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	<i>07/07/18 20:21</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>98.4 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	<i>07/07/18 20:21</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>113 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	<i>07/07/18 20:21</i>	
<i>Surrogate: Toluene-d8</i>	<i>104 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	<i>07/07/18 20:21</i>	



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Project Number : 185804220
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Client Sample ID B-8-5

Lab ID: 1802450-18

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B8G0137	07/07/2018	07/07/18 20:32	
Surrogate: 4-Bromofluorobenzene	105 %	57 - 144		B8G0137	07/07/2018	07/07/18 20:32	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	ND	10	1	B8G0162	07/09/2018	07/09/18 14:13	
ORO	ND	10	1	B8G0162	07/09/2018	07/09/18 14:13	
Surrogate: p-Terphenyl	115 %	58 - 172		B8G0162	07/09/2018	07/09/18 14:13	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 20:40	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-8-5

Lab ID: 1802450-18

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 20:40	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 20:40	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 20:40	
Methylene chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-8-5

Lab ID: 1802450-18

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 20:40	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 20:40	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:40	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>103 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	<i>07/07/18 20:40</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>97.8 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	<i>07/07/18 20:40</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>115 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	<i>07/07/18 20:40</i>	
<i>Surrogate: Toluene-d8</i>	<i>104 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	<i>07/07/18 20:40</i>	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-7-5

Lab ID: 1802450-19

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B8G0137	07/07/2018	07/07/18 20:51	
Surrogate: 4-Bromofluorobenzene	105 %	57 - 144		B8G0137	07/07/2018	07/07/18 20:51	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	ND	10	1	B8G0162	07/09/2018	07/09/18 14:48	
ORO	ND	10	1	B8G0162	07/09/2018	07/09/18 14:48	
Surrogate: p-Terphenyl	111 %	58 - 172		B8G0162	07/09/2018	07/09/18 14:48	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 20:58	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	



Certificate of Analysis

Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-7-5

Lab ID: 1802450-19

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 20:58	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 20:58	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 20:58	
Methylene chloride	56	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	



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Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino , CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-7-5

Lab ID: 1802450-19

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 20:58	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 20:58	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 20:58	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>104 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	07/07/18 20:58	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>97.5 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	07/07/18 20:58	
<i>Surrogate: Dibromofluoromethane</i>	<i>115 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	07/07/18 20:58	
<i>Surrogate: Toluene-d8</i>	<i>104 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	07/07/18 20:58	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-4-5

Lab ID: 1802450-20

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B8G0137	07/07/2018	07/07/18 21:09	
Surrogate: 4-Bromofluorobenzene	102 %	57 - 144		B8G0137	07/07/2018	07/07/18 21:09	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	ND	10	1	B8G0162	07/09/2018	07/09/18 15:05	
ORO	ND	10	1	B8G0162	07/09/2018	07/09/18 15:05	
Surrogate: p-Terphenyl	115 %	58 - 172		B8G0162	07/09/2018	07/09/18 15:05	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 21:17	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	



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Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-4-5

Lab ID: 1802450-20

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 21:17	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 21:17	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 21:17	
Methylene chloride	6.0	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	



Certificate of Analysis

Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino , CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-4-5

Lab ID: 1802450-20

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 21:17	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 21:17	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:17	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>104 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	07/07/18 21:17	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>95.3 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	07/07/18 21:17	
<i>Surrogate: Dibromofluoromethane</i>	<i>112 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	07/07/18 21:17	
<i>Surrogate: Toluene-d8</i>	<i>100 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	07/07/18 21:17	



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735 E. Carnegie Drive, Suite 280
San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-3-5

Lab ID: 1802450-21

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B8G0137	07/07/2018	07/07/18 21:28	
Surrogate: 4-Bromofluorobenzene	102 %	57 - 144		B8G0137	07/07/2018	07/07/18 21:28	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	ND	10	1	B8G0162	07/09/2018	07/09/18 15:22	
ORO	ND	10	1	B8G0162	07/09/2018	07/09/18 15:22	
Surrogate: p-Terphenyl	118 %	58 - 172		B8G0162	07/09/2018	07/09/18 15:22	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 21:36	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	



Certificate of Analysis

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San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-3-5

Lab ID: 1802450-21

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 21:36	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 21:36	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 21:36	
Methylene chloride	73	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	



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Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino , CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-3-5

Lab ID: 1802450-21

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 21:36	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 21:36	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:36	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>99.2 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	07/07/18 21:36	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>94.3 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	07/07/18 21:36	
<i>Surrogate: Dibromofluoromethane</i>	<i>113 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	07/07/18 21:36	
<i>Surrogate: Toluene-d8</i>	<i>102 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	07/07/18 21:36	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-6-5

Lab ID: 1802450-22

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B8G0137	07/07/2018	07/07/18 21:46	
Surrogate: 4-Bromofluorobenzene	99.9 %	57 - 144		B8G0137	07/07/2018	07/07/18 21:46	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	ND	10	1	B8G0162	07/09/2018	07/09/18 15:40	
ORO	ND	10	1	B8G0162	07/09/2018	07/09/18 15:40	
Surrogate: p-Terphenyl	120 %	58 - 172		B8G0162	07/09/2018	07/09/18 15:40	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 21:55	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-6-5

Lab ID: 1802450-22

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 21:55	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 21:55	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 21:55	
Methylene chloride	56	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	



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San Bernardino , CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-6-5

Lab ID: 1802450-22

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 21:55	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 21:55	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 21:55	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>110 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	07/07/18 21:55	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>95.7 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	07/07/18 21:55	
<i>Surrogate: Dibromofluoromethane</i>	<i>120 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	07/07/18 21:55	
<i>Surrogate: Toluene-d8</i>	<i>104 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	07/07/18 21:55	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-5-1

Lab ID: 1802450-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	3.3	1.0	1	B8G0147	07/09/2018	07/09/18 11:55	
Lead	4.4	1.0	1	B8G0147	07/09/2018	07/09/18 11:55	

Organochlorine Pesticides by EPA 8081

Analyst: CO

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	2.5	2.0	1	B8G0138	07/07/2018	07/08/18 17:17	
4,4'-DDE	31	2.0	1	B8G0138	07/07/2018	07/08/18 17:17	
4,4'-DDT [2C]	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Aldrin	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:17	
alpha-BHC	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:17	
alpha-Chlordane	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:17	
beta-BHC	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Chlordane [2C]	ND	8.5	1	B8G0138	07/07/2018	07/08/18 17:17	
delta-BHC	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Dieldrin	3.0	2.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Endosulfan I	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Endosulfan II	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Endosulfan sulfate	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Endrin	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Endrin aldehyde	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Endrin ketone	ND	2.0	1	B8G0138	07/07/2018	07/08/18 17:17	
gamma-BHC	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:17	
gamma-Chlordane [2C]	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Heptachlor	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Heptachlor epoxide	ND	1.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Methoxychlor	ND	5.0	1	B8G0138	07/07/2018	07/08/18 17:17	
Toxaphene	ND	50	1	B8G0138	07/07/2018	07/08/18 17:17	
Surrogate: Decachlorobiphenyl	61.6 %	15 - 100		B8G0138	07/07/2018	07/08/18 17:17	
Surrogate: Tetrachloro-m-xylene	50.9 %	16 - 100		B8G0138	07/07/2018	07/08/18 17:17	



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-5-5

Lab ID: 1802450-25

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B8G0137	07/07/2018	07/07/18 22:05	
Surrogate: 4-Bromofluorobenzene	105 %	57 - 144		B8G0137	07/07/2018	07/07/18 22:05	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	ND	10	1	B8G0162	07/09/2018	07/09/18 15:57	
ORO	ND	10	1	B8G0162	07/09/2018	07/09/18 15:57	
Surrogate: p-Terphenyl	118 %	58 - 172		B8G0162	07/09/2018	07/09/18 15:57	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 22:14	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	



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San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-5-5

Lab ID: 1802450-25

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 22:14	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 22:14	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 22:14	
Methylene chloride	37	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	



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Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino , CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-5-5

Lab ID: 1802450-25

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 22:14	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 22:14	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:14	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>111 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	07/07/18 22:14	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>95.5 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	07/07/18 22:14	
<i>Surrogate: Dibromofluoromethane</i>	<i>120 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	07/07/18 22:14	
<i>Surrogate: Toluene-d8</i>	<i>105 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	07/07/18 22:14	



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San Bernardino, CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-11-5

Lab ID: 1802450-26

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: AG

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	1	B8G0137	07/07/2018	07/07/18 22:24	
Surrogate: 4-Bromofluorobenzene	96.5 %	57 - 144		B8G0137	07/07/2018	07/07/18 22:24	

Diesel Range Organics by EPA 8015B

Analyst: TKT

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	77	10	1	B8G0162	07/09/2018	07/09/18 16:14	
ORO	ND	10	1	B8G0162	07/09/2018	07/09/18 16:14	
Surrogate: p-Terphenyl	128 %	58 - 172		B8G0162	07/09/2018	07/09/18 16:14	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,1,1-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,1,2-Trichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,1-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,1-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,1-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,2,3-Trichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,2,3-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,2,4-Trichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,2,4-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,2-Dibromo-3-chloropropane	ND	10	1	B8G0132	07/07/2018	07/07/18 22:32	
1,2-Dibromoethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,2-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,2-Dichloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,3,5-Trimethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,3-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,3-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
1,4-Dichlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
2,2-Dichloropropane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	



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Stantec
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San Bernardino , CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-11-5

Lab ID: 1802450-26

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
4-Chlorotoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
4-Isopropyltoluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Benzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Bromobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Bromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Bromodichloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Bromoform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Bromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Carbon disulfide	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Carbon tetrachloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Chlorobenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Chloroethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Chloroform	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Chloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
cis-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
cis-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Di-isopropyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Dibromochloromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Dibromomethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Dichlorodifluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Ethyl Acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 22:32	
Ethyl Ether	ND	50	1	B8G0132	07/07/2018	07/07/18 22:32	
Ethyl tert-butyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Ethylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Freon-113	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Hexachlorobutadiene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Isopropylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
m,p-Xylene	ND	10	1	B8G0132	07/07/2018	07/07/18 22:32	
Methylene chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
MTBE	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
n-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
n-Propylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Naphthalene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
o-Xylene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
sec-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	



Certificate of Analysis

Stantec
735 E. Carnegie Drive, Suite 280
San Bernardino , CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Client Sample ID B-11-5

Lab ID: 1802450-26

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Styrene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
tert-Amyl methyl ether	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
tert-Butanol	ND	100	1	B8G0132	07/07/2018	07/07/18 22:32	
tert-Butylbenzene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Tetrachloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Toluene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
trans-1,2-Dichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
trans-1,3-Dichloropropene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Trichloroethene	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Trichlorofluoromethane	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
Vinyl acetate	ND	50	1	B8G0132	07/07/2018	07/07/18 22:32	
Vinyl chloride	ND	5.0	1	B8G0132	07/07/2018	07/07/18 22:32	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>106 %</i>	<i>58 - 144</i>		B8G0132	07/07/2018	07/07/18 22:32	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>101 %</i>	<i>60 - 137</i>		B8G0132	07/07/2018	07/07/18 22:32	
<i>Surrogate: Dibromofluoromethane</i>	<i>119 %</i>	<i>70 - 131</i>		B8G0132	07/07/2018	07/07/18 22:32	
<i>Surrogate: Toluene-d8</i>	<i>103 %</i>	<i>79 - 131</i>		B8G0132	07/07/2018	07/07/18 22:32	



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735 E. Carnegie Drive, Suite 280
San Bernardino , CA 92408

Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B8G0147 - EPA 3050B_S										
Blank (B8G0147-BLK1)					Prepared: 7/9/2018 Analyzed: 7/9/2018					
Arsenic	ND	1.0	0.12							
Lead	ND	1.0	0.18							
LCS (B8G0147-BS1)					Prepared: 7/9/2018 Analyzed: 7/9/2018					
Arsenic	43.1322	1.0	0.12	50.0000		86.3	80 - 120			
Lead	44.0533	1.0	0.18	50.0000		88.1	80 - 120			
Matrix Spike (B8G0147-MS1)					Source: 1802450-01		Prepared: 7/9/2018 Analyzed: 7/9/2018			
Arsenic	89.9252	1.0	0.12	125.000	4.03966	68.7	49 - 99			
Lead	86.5194	1.0	0.18	125.000	6.07850	64.4	36 - 121			
Matrix Spike Dup (B8G0147-MSD1)					Source: 1802450-01		Prepared: 7/9/2018 Analyzed: 7/9/2018			
Arsenic	93.2705	1.0	0.12	125.628	4.03966	71.0	49 - 99	3.65	20	
Lead	88.2913	1.0	0.18	125.628	6.07850	65.4	36 - 121	2.03	20	



Certificate of Analysis

Stantec	Project Number : 185804220
735 E. Carnegie Drive, Suite 280	Report To : Dion Monge
San Bernardino , CA 92408	Reported : 07/10/2018

Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B8G0137 - GCVOA_S

Blank (B8G0137-BLK1)

Prepared: 7/7/2018 Analyzed: 7/7/2018

Gasoline Range Organics	ND	1.0	0.20						
Surrogate: 4-Bromofluorobenzene	0.1936			0.200000		96.8	57 - 144		

LCS (B8G0137-BS1)

Prepared: 7/7/2018 Analyzed: 7/7/2018

Gasoline Range Organics	4.68300	1.0	0.20	5.00000		93.7	70 - 130		
Surrogate: 4-Bromofluorobenzene	0.1797			0.200000		89.8	57 - 144		

Matrix Spike (B8G0137-MS1)

Source: 1802447-01

Prepared: 7/7/2018 Analyzed: 7/7/2018

Gasoline Range Organics	3.53100	1.0	0.20	5.00000	ND	70.6	28 - 118		
Surrogate: 4-Bromofluorobenzene	0.1950			0.200000		97.5	57 - 144		

Matrix Spike Dup (B8G0137-MSD1)

Source: 1802447-01

Prepared: 7/7/2018 Analyzed: 7/7/2018

Gasoline Range Organics	3.43000	1.0	0.20	5.00000	ND	68.6	28 - 118	2.90	20
Surrogate: 4-Bromofluorobenzene	0.1876			0.200000		93.8	57 - 144		



Certificate of Analysis

Stantec	Project Number : 185804220
735 E. Carnegie Drive, Suite 280	Report To : Dion Monge
San Bernardino , CA 92408	Reported : 07/10/2018

Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0141 - GCVOA_S

Blank (B8G0141-BLK1)

Prepared: 7/9/2018 Analyzed: 7/9/2018

Gasoline Range Organics	ND	1.0	0.20						
Surrogate: 4-Bromofluorobenzene	0.1930			0.200000		96.5	57 - 144		

LCS (B8G0141-BS1)

Prepared: 7/9/2018 Analyzed: 7/9/2018

Gasoline Range Organics	4.06000	1.0	0.20	5.00000		81.2	70 - 130		
Surrogate: 4-Bromofluorobenzene	0.1933			0.200000		96.7	57 - 144		

LCS Dup (B8G0141-BSD1)

Prepared: 7/9/2018 Analyzed: 7/9/2018

Gasoline Range Organics	4.27200	1.0	0.20	5.00000		85.4	70 - 130	5.09	20
Surrogate: 4-Bromofluorobenzene	0.2006			0.200000		100	57 - 144		



Certificate of Analysis

Stantec	Project Number : 185804220
735 E. Carnegie Drive, Suite 280	Report To : Dion Monge
San Bernardino , CA 92408	Reported : 07/10/2018

Diesel Range Organics by EPA 8015B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0162 - GCSEMI_DRO_S

Blank (B8G0162-BLK1)

Prepared: 7/9/2018 Analyzed: 7/9/2018

DRO	ND	10	10						
ORO	ND	10	10						
Surrogate: <i>p</i> -Terphenyl	86.84			80.0000	109	58 - 172			

LCS (B8G0162-BS1)

Prepared: 7/9/2018 Analyzed: 7/9/2018

DRO	1600.52	10	10	1000.00	160	71 - 165			
Surrogate: <i>p</i> -Terphenyl	109.6			80.0000	137	58 - 172			

Matrix Spike (B8G0162-MS1)

Source: 1802458-01

Prepared: 7/9/2018 Analyzed: 7/9/2018

DRO	1691.09	10	10	1000.00	133.570	156	61 - 171		
Surrogate: <i>p</i> -Terphenyl	108.5			80.0000	136	58 - 172			

Matrix Spike Dup (B8G0162-MSD1)

Source: 1802458-01

Prepared: 7/9/2018 Analyzed: 7/9/2018

DRO	1678.12	10	10	1000.00	133.570	154	61 - 171	0.770	20
Surrogate: <i>p</i> -Terphenyl	100.3			80.0000	125	58 - 172			



Certificate of Analysis

Stantec	Project Number : 185804220
735 E. Carnegie Drive, Suite 280	Report To : Dion Monge
San Bernardino , CA 92408	Reported : 07/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B8G0138 - GCSEMI_PCB/PEST_S

Blank (B8G0138-BLK1)

Prepared: 7/7/2018 Analyzed: 7/8/2018

4,4'-DDD	ND	2.0	0.10
4,4'-DDD [2C]	ND	2.0	0.10
4,4'-DDE	ND	2.0	0.07
4,4'-DDE [2C]	ND	2.0	0.07
4,4'-DDT	ND	2.0	0.14
4,4'-DDT [2C]	ND	2.0	0.14
Aldrin	ND	1.0	0.08
Aldrin [2C]	ND	1.0	0.08
alpha-BHC	ND	1.0	0.04
alpha-BHC [2C]	ND	1.0	0.04
alpha-Chlordane	ND	1.0	0.04
alpha-Chlordane [2C]	ND	1.0	0.04
beta-BHC	ND	1.0	0.04
beta-BHC [2C]	ND	1.0	0.04
Chlordane	ND	8.5	0.90
Chlordane [2C]	ND	8.5	0.90
delta-BHC	ND	1.0	0.04
delta-BHC [2C]	ND	1.0	0.04
Dieldrin	ND	2.0	0.05
Dieldrin [2C]	ND	2.0	0.05
Endosulfan I	ND	1.0	0.04
Endosulfan I [2C]	ND	1.0	0.04
Endosulfan II	ND	2.0	0.10
Endosulfan II [2C]	ND	2.0	0.10
Endosulfan sulfate	ND	2.0	0.06
Endosulfan Sulfate [2C]	ND	2.0	0.06
Endrin	ND	2.0	0.08
Endrin [2C]	ND	2.0	0.08
Endrin aldehyde	ND	2.0	0.09
Endrin aldehyde [2C]	ND	2.0	0.09
Endrin ketone	ND	2.0	0.07
Endrin ketone [2C]	ND	2.0	0.07
gamma-BHC	ND	1.0	0.05
gamma-BHC [2C]	ND	1.0	0.05
gamma-Chlordane	ND	1.0	0.04
gamma-Chlordane [2C]	ND	1.0	0.04
Heptachlor	ND	1.0	0.07
Heptachlor [2C]	ND	1.0	0.07
Heptachlor epoxide	ND	1.0	0.04
Heptachlor epoxide [2C]	ND	1.0	0.04



Certificate of Analysis

Stantec	Project Number : 185804220
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San Bernardino , CA 92408	Reported : 07/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B8G0138 - GCSEMI_PCB/PEST_S (continued)

Blank (B8G0138-BLK1) - Continued

Prepared: 7/7/2018 Analyzed: 7/8/2018

Methoxychlor	ND	5.0	0.10						
Methoxychlor [2C]	ND	5.0	0.10						
Toxaphene	ND	50	8.2						
Toxaphene [2C]	ND	50	8.2						
<i>Surrogate: Decachlorobiphenyl</i>	<i>14.51</i>			<i>16.6667</i>		<i>87.1</i>	<i>15 - 100</i>		
<i>Surrogate: Decachlorobiphenyl [</i>	<i>11.15</i>			<i>16.6667</i>		<i>66.9</i>	<i>15 - 100</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.25</i>			<i>16.6667</i>		<i>79.5</i>	<i>16 - 100</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>12.40</i>			<i>16.6667</i>		<i>74.4</i>	<i>16 - 100</i>		

LCS (B8G0138-BS1)

Prepared: 7/7/2018 Analyzed: 7/8/2018

4,4'-DDD	15.6677	2.0	0.10	16.6667		94.0	62 - 129		
4,4'-DDD [2C]	14.2980	2.0	0.10	16.6667		85.8	62 - 129		
4,4'-DDE	15.4875	2.0	0.07	16.6667		92.9	65 - 117		
4,4'-DDE [2C]	13.6515	2.0	0.07	16.6667		81.9	65 - 117		
4,4'-DDT	16.0143	2.0	0.14	16.6667		96.1	35 - 136		
4,4'-DDT [2C]	14.0835	2.0	0.14	16.6667		84.5	35 - 136		
Aldrin	15.0835	1.0	0.08	16.6667		90.5	67 - 110		
Aldrin [2C]	14.0750	1.0	0.08	16.6667		84.4	67 - 110		
alpha-BHC	14.9153	1.0	0.04	16.6667		89.5	69 - 110		
alpha-BHC [2C]	14.9665	1.0	0.04	16.6667		89.8	69 - 110		
alpha-Chlordane	15.3025	1.0	0.04	16.6667		91.8	65 - 114		
alpha-Chlordane [2C]	13.5658	1.0	0.04	16.6667		81.4	65 - 114		
beta-BHC	14.2082	1.0	0.04	16.6667		85.2	64 - 108		
beta-BHC [2C]	14.1685	1.0	0.04	16.6667		85.0	64 - 108		
delta-BHC	15.6680	1.0	0.04	16.6667		94.0	44 - 110		
delta-BHC [2C]	14.6385	1.0	0.04	16.6667		87.8	44 - 110		
Dieldrin	14.6007	2.0	0.05	16.6667		87.6	63 - 107		
Dieldrin [2C]	13.3412	2.0	0.05	16.6667		80.0	63 - 107		
Endosulfan I	14.6548	1.0	0.04	16.6667		87.9	63 - 103		
Endosulfan I [2C]	13.6730	1.0	0.04	16.6667		82.0	63 - 103		
Endosulfan II	16.5833	2.0	0.10	16.6667		99.5	62 - 122		
Endosulfan II [2C]	14.2722	2.0	0.10	16.6667		85.6	62 - 122		
Endosulfan sulfate	16.2163	2.0	0.06	16.6667		97.3	53 - 127		
Endosulfan Sulfate [2C]	13.1190	2.0	0.06	16.6667		78.7	53 - 127		
Endrin	16.0787	2.0	0.08	16.6667		96.5	66 - 120		
Endrin [2C]	14.5207	2.0	0.08	16.6667		87.1	66 - 120		
Endrin aldehyde	17.7408	2.0	0.09	16.6667		106	67 - 121		
Endrin aldehyde [2C]	15.4287	2.0	0.09	16.6667		92.6	67 - 121		
Endrin ketone	15.6928	2.0	0.07	16.6667		94.2	41 - 146		
Endrin ketone [2C]	13.5477	2.0	0.07	16.6667		81.3	41 - 146		



Certificate of Analysis

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Report To : Dion Monge
Reported : 07/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0138 - GCSEMI_PCB/PEST_S (continued)

LCS (B8G0138-BS1) - Continued

Prepared: 7/7/2018 Analyzed: 7/8/2018

gamma-BHC	14.5035	1.0	0.05	16.6667		87.0	67 - 109		
gamma-BHC [2C]	14.1220	1.0	0.05	16.6667		84.7	67 - 109		
gamma-Chlordane	14.7850	1.0	0.04	16.6667		88.7	63 - 110		
gamma-Chlordane [2C]	13.5757	1.0	0.04	16.6667		81.5	63 - 110		
Heptachlor	15.1995	1.0	0.07	16.6667		91.2	67 - 120		
Heptachlor [2C]	15.0783	1.0	0.07	16.6667		90.5	67 - 120		
Heptachlor epoxide	14.3075	1.0	0.04	16.6667		85.8	62 - 108		
Heptachlor epoxide [2C]	13.4530	1.0	0.04	16.6667		80.7	62 - 108		
Methoxychlor	17.5728	5.0	0.10	16.6667		105	47 - 152		
Methoxychlor [2C]	15.4045	5.0	0.10	16.6667		92.4	47 - 152		
Surrogate: Decachlorobiphenyl	15.55			16.6667		93.3	15 - 100		
Surrogate: Decachlorobiphenyl [	12.47			16.6667		74.8	15 - 100		
Surrogate: Tetrachloro-m-xylene	14.05			16.6667		84.3	16 - 100		
Surrogate: Tetrachloro-m-xylene	16.41			16.6667		98.5	16 - 100		

Matrix Spike (B8G0138-MS1)

Source: 1802417-04

Prepared: 7/7/2018 Analyzed: 7/8/2018

4,4'-DDD	13.5105	2.0	0.10	16.6667	ND	81.1	0 - 127		
4,4'-DDD [2C]	15.3645	2.0	0.10	16.6667	ND	92.2	0 - 127		
4,4'-DDE	11.0270	2.0	0.07	16.6667	ND	66.2	0 - 125		
4,4'-DDE [2C]	9.63867	2.0	0.07	16.6667	ND	57.8	0 - 125		
4,4'-DDT	14.3003	2.0	0.14	16.6667	ND	85.8	0 - 103		
4,4'-DDT [2C]	12.3050	2.0	0.14	16.6667	ND	73.8	0 - 103		
Aldrin	11.3517	1.0	0.08	16.6667	ND	68.1	6 - 104		
Aldrin [2C]	10.7212	1.0	0.08	16.6667	ND	64.3	6 - 104		
alpha-BHC	12.2505	1.0	0.04	16.6667	ND	73.5	0 - 114		
alpha-BHC [2C]	12.1455	1.0	0.04	16.6667	ND	72.9	0 - 114		
alpha-Chlordane	11.5222	1.0	0.04	16.6667	ND	69.1	0 - 110		
alpha-Chlordane [2C]	10.4200	1.0	0.04	16.6667	ND	62.5	0 - 110		
beta-BHC	10.5558	1.0	0.04	16.6667	ND	63.3	0 - 129		
beta-BHC [2C]	10.5173	1.0	0.04	16.6667	ND	63.1	0 - 129		
delta-BHC	12.8472	1.0	0.04	16.6667	0.076667	76.6	18 - 99		
delta-BHC [2C]	11.6983	1.0	0.04	16.6667	ND	70.2	18 - 99		
Dieldrin	16.3073	2.0	0.05	16.6667	ND	97.8	0 - 124		
Dieldrin [2C]	10.4682	2.0	0.05	16.6667	ND	62.8	0 - 124		
Endosulfan I	11.4033	1.0	0.04	16.6667	ND	68.4	0 - 106		
Endosulfan I [2C]	10.1515	1.0	0.04	16.6667	ND	60.9	0 - 106		
Endosulfan II	14.5218	2.0	0.10	16.6667	ND	87.1	20 - 130		
Endosulfan II [2C]	11.5775	2.0	0.10	16.6667	ND	69.5	20 - 130		
Endosulfan sulfate	13.6603	2.0	0.06	16.6667	ND	82.0	24 - 119		
Endosulfan Sulfate [2C]	12.7208	2.0	0.06	16.6667	ND	76.3	24 - 119		



Certificate of Analysis

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San Bernardino , CA 92408	Reported : 07/10/2018

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0138 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B8G0138-MS1) - Continued

Source: 1802417-04

Prepared: 7/7/2018 Analyzed: 7/8/2018

Endrin	13.0028	2.0	0.08	16.6667	ND	78.0	0 - 135
Endrin [2C]	11.6922	2.0	0.08	16.6667	ND	70.2	0 - 135
Endrin aldehyde	14.6842	2.0	0.09	16.6667	ND	88.1	19 - 132
Endrin aldehyde [2C]	10.7103	2.0	0.09	16.6667	ND	64.3	19 - 132
Endrin ketone	14.0488	2.0	0.07	16.6667	ND	84.3	7 - 141
Endrin ketone [2C]	12.3880	2.0	0.07	16.6667	ND	74.3	7 - 141
gamma-BHC	12.1098	1.0	0.05	16.6667	ND	72.7	0 - 117
gamma-BHC [2C]	11.5477	1.0	0.05	16.6667	ND	69.3	0 - 117
gamma-Chlordane	11.7733	1.0	0.04	16.6667	ND	70.6	0 - 156
gamma-Chlordane [2C]	9.13367	1.0	0.04	16.6667	ND	54.8	0 - 156
Heptachlor	12.4842	1.0	0.07	16.6667	ND	74.9	3 - 112
Heptachlor [2C]	11.5292	1.0	0.07	16.6667	ND	69.2	3 - 112
Heptachlor epoxide	11.2830	1.0	0.04	16.6667	ND	67.7	0 - 118
Heptachlor epoxide [2C]	10.1967	1.0	0.04	16.6667	ND	61.2	0 - 118
Methoxychlor	14.5695	5.0	0.10	16.6667	ND	87.4	0 - 161
Methoxychlor [2C]	13.8872	5.0	0.10	16.6667	ND	83.3	0 - 161
Surrogate: Decachlorobiphenyl	15.53			16.6667		93.2	15 - 100
Surrogate: Decachlorobiphenyl [	10.52			16.6667		63.1	15 - 100
Surrogate: Tetrachloro-m-xylene	10.73			16.6667		64.4	16 - 100
Surrogate: Tetrachloro-m-xylene	10.63			16.6667		63.8	16 - 100

Matrix Spike Dup (B8G0138-MSD1)

Source: 1802417-04

Prepared: 7/7/2018 Analyzed: 7/8/2018

4,4'-DDD	13.9868	2.0	0.10	16.6667	ND	83.9	0 - 127	3.46	20
4,4'-DDD [2C]	14.9210	2.0	0.10	16.6667	ND	89.5	0 - 127	2.93	20
4,4'-DDE	10.2943	2.0	0.07	16.6667	ND	61.8	0 - 125	6.87	20
4,4'-DDE [2C]	9.51017	2.0	0.07	16.6667	ND	57.1	0 - 125	1.34	20
4,4'-DDT	13.8187	2.0	0.14	16.6667	ND	82.9	0 - 103	3.43	20
4,4'-DDT [2C]	11.7685	2.0	0.14	16.6667	ND	70.6	0 - 103	4.46	20
Aldrin	11.2890	1.0	0.08	16.6667	ND	67.7	6 - 104	0.554	20
Aldrin [2C]	10.5052	1.0	0.08	16.6667	ND	63.0	6 - 104	2.04	20
alpha-BHC	12.1593	1.0	0.04	16.6667	ND	73.0	0 - 114	0.747	20
alpha-BHC [2C]	11.8540	1.0	0.04	16.6667	ND	71.1	0 - 114	2.43	20
alpha-Chlordane	11.4487	1.0	0.04	16.6667	ND	68.7	0 - 110	0.640	20
alpha-Chlordane [2C]	10.2987	1.0	0.04	16.6667	ND	61.8	0 - 110	1.17	20
beta-BHC	10.7880	1.0	0.04	16.6667	ND	64.7	0 - 129	2.18	20
beta-BHC [2C]	10.4397	1.0	0.04	16.6667	ND	62.6	0 - 129	0.741	20
delta-BHC	12.8540	1.0	0.04	16.6667	0.076667	76.7	18 - 99	0.0532	20
delta-BHC [2C]	11.5407	1.0	0.04	16.6667	ND	69.2	18 - 99	1.36	20
Dieldrin	15.5578	2.0	0.05	16.6667	ND	93.3	0 - 124	4.70	20
Dieldrin [2C]	10.3352	2.0	0.05	16.6667	ND	62.0	0 - 124	1.28	20



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0138 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike Dup (B8G0138-MSD1) - Continued

Source: 1802417-04

Prepared: 7/7/2018 Analyzed: 7/8/2018

Endosulfan I	11.1682	1.0	0.04	16.6667	ND	67.0	0 - 106	2.08	20	
Endosulfan I [2C]	9.86767	1.0	0.04	16.6667	ND	59.2	0 - 106	2.84	20	
Endosulfan II	14.5255	2.0	0.10	16.6667	ND	87.2	20 - 130	0.0253	20	
Endosulfan II [2C]	11.2308	2.0	0.10	16.6667	ND	67.4	20 - 130	3.04	20	
Endosulfan sulfate	13.1888	2.0	0.06	16.6667	ND	79.1	24 - 119	3.51	20	
Endosulfan Sulfate [2C]	12.6707	2.0	0.06	16.6667	ND	76.0	24 - 119	0.395	20	
Endrin	12.8295	2.0	0.08	16.6667	ND	77.0	0 - 135	1.34	20	
Endrin [2C]	11.3207	2.0	0.08	16.6667	ND	67.9	0 - 135	3.23	20	
Endrin aldehyde	15.1437	2.0	0.09	16.6667	ND	90.9	19 - 132	3.08	20	
Endrin aldehyde [2C]	10.5390	2.0	0.09	16.6667	ND	63.2	19 - 132	1.61	20	
Endrin ketone	13.7383	2.0	0.07	16.6667	ND	82.4	7 - 141	2.23	20	
Endrin ketone [2C]	12.3287	2.0	0.07	16.6667	ND	74.0	7 - 141	0.480	20	
gamma-BHC	11.9817	1.0	0.05	16.6667	ND	71.9	0 - 117	1.06	20	
gamma-BHC [2C]	11.3948	1.0	0.05	16.6667	ND	68.4	0 - 117	1.33	20	
gamma-Chlordane	12.3728	1.0	0.04	16.6667	ND	74.2	0 - 156	4.97	20	
gamma-Chlordane [2C]	10.0780	1.0	0.04	16.6667	ND	60.5	0 - 156	9.83	20	
Heptachlor	12.2302	1.0	0.07	16.6667	ND	73.4	3 - 112	2.06	20	
Heptachlor [2C]	11.3610	1.0	0.07	16.6667	ND	68.2	3 - 112	1.47	20	
Heptachlor epoxide	11.3713	1.0	0.04	16.6667	ND	68.2	0 - 118	0.780	20	
Heptachlor epoxide [2C]	11.4423	1.0	0.04	16.6667	ND	68.7	0 - 118	11.5	20	
Methoxychlor	13.9417	5.0	0.10	16.6667	ND	83.7	0 - 161	4.40	20	
Methoxychlor [2C]	13.2142	5.0	0.10	16.6667	ND	79.3	0 - 161	4.97	20	
Surrogate: Decachlorobiphenyl	16.06			16.6667		96.4	15 - 100			
Surrogate: Decachlorobiphenyl [	10.41			16.6667		62.5	15 - 100			
Surrogate: Tetrachloro-m-xylene	10.68			16.6667		64.1	16 - 100			
Surrogate: Tetrachloro-m-xylene	10.54			16.6667		63.3	16 - 100			



Certificate of Analysis

Stantec	Project Number : 185804220
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San Bernardino , CA 92408	Reported : 07/10/2018

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0132 - MSVOA_S

Blank (B8G0132-BLK1)

Prepared: 7/7/2018 Analyzed: 7/7/2018

1,1,1,2-Tetrachloroethane	ND	5.0	0.96
1,1,1-Trichloroethane	ND	5.0	1.1
1,1,2,2-Tetrachloroethane	ND	5.0	0.62
1,1,2-Trichloroethane	ND	5.0	1.6
1,1-Dichloroethane	ND	5.0	0.81
1,1-Dichloroethene	ND	5.0	2.6
1,1-Dichloropropene	ND	5.0	2.3
1,2,3-Trichloropropane	ND	5.0	0.54
1,2,3-Trichlorobenzene	ND	5.0	1.2
1,2,4-Trichlorobenzene	ND	5.0	1.1
1,2,4-Trimethylbenzene	ND	5.0	1.5
1,2-Dibromo-3-chloropropane	ND	10	1.6
1,2-Dibromoethane	ND	5.0	3.2
1,2-Dichlorobenzene	ND	5.0	1.1
1,2-Dichloroethane	ND	5.0	1.2
1,2-Dichloropropane	ND	5.0	1.8
1,3,5-Trimethylbenzene	ND	5.0	1.7
1,3-Dichlorobenzene	ND	5.0	1.3
1,3-Dichloropropane	ND	5.0	1.1
1,4-Dichlorobenzene	ND	5.0	1.2
2,2-Dichloropropane	ND	5.0	1.2
2-Chlorotoluene	ND	5.0	1.6
4-Chlorotoluene	ND	5.0	1.5
4-Isopropyltoluene	ND	5.0	2.3
Benzene	ND	5.0	0.64
Bromobenzene	ND	5.0	1.1
Bromochloromethane	ND	5.0	0.64
Bromodichloromethane	ND	5.0	1.2
Bromoform	ND	5.0	0.80
Bromomethane	ND	5.0	2.5
Carbon disulfide	ND	5.0	3.5
Carbon tetrachloride	ND	5.0	1.2
Chlorobenzene	ND	5.0	1.0
Chloroethane	ND	5.0	1.1
Chloroform	ND	5.0	0.82
Chloromethane	ND	5.0	1.4
cis-1,2-Dichloroethene	ND	5.0	0.67
cis-1,3-Dichloropropene	ND	5.0	1.9
Di-isopropyl ether	ND	5.0	0.55
Dibromochloromethane	ND	5.0	1.0



Certificate of Analysis

Stantec

735 E. Carnegie Drive, Suite 280

San Bernardino, CA 92408

Project Number : 185804220

Report To : Dion Monge

Reported : 07/10/2018

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0132 - MSVOA_S (continued)

Blank (B8G0132-BLK1) - Continued

Prepared: 7/7/2018 Analyzed: 7/7/2018

Dibromomethane	ND	5.0	1.6
Dichlorodifluoromethane	ND	5.0	2.2
Ethyl Acetate	ND	50	8.1
Ethyl Ether	ND	50	6.1
Ethyl tert-butyl ether	ND	5.0	0.67
Ethylbenzene	ND	5.0	0.91
Freon-113	ND	5.0	2.8
Hexachlorobutadiene	ND	5.0	2.5
Isopropylbenzene	ND	5.0	1.8
m,p-Xylene	ND	10	1.5
Methylene chloride	ND	5.0	2.3
MTBE	ND	5.0	0.63
n-Butylbenzene	ND	5.0	2.4
n-Propylbenzene	ND	5.0	2.2
Naphthalene	ND	5.0	0.97
o-Xylene	ND	5.0	0.87
sec-Butylbenzene	ND	5.0	2.3
Styrene	ND	5.0	1.5
tert-Amyl methyl ether	ND	5.0	0.59
tert-Butanol	ND	100	19
tert-Butylbenzene	ND	5.0	2.0
Tetrachloroethene	ND	5.0	1.6
Toluene	ND	5.0	0.94
trans-1,2-Dichloroethene	ND	5.0	0.59
trans-1,3-Dichloropropene	ND	5.0	2.1
Trichloroethene	ND	5.0	3.1
Trichlorofluoromethane	ND	5.0	1.4
Vinyl acetate	ND	50	9.8
Vinyl chloride	ND	5.0	1.7

Surrogate: 1,2-Dichloroethane-d4	49.59	50.0000	99.2	58 - 144
Surrogate: 4-Bromofluorobenzene	46.72	50.0000	93.4	60 - 137
Surrogate: Dibromofluoromethane	55.64	50.0000	111	70 - 131
Surrogate: Toluene-d8	52.08	50.0000	104	79 - 131

LCS (B8G0132-BS1)

Prepared: 7/7/2018 Analyzed: 7/7/2018

1,1,1,2-Tetrachloroethane	51.8100	5.0	0.96	50.0000	104	82 - 113
1,1,1-Trichloroethane	45.9400	5.0	1.1	50.0000	91.9	75 - 123
1,1,2,2-Tetrachloroethane	49.6100	5.0	0.62	50.0000	99.2	70 - 115
1,1,2-Trichloroethane	49.8500	5.0	1.6	50.0000	99.7	84 - 113
1,1-Dichloroethane	45.5100	5.0	0.81	50.0000	91.0	75 - 119



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San Bernardino , CA 92408	Reported : 07/10/2018

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0132 - MSVOA_S (continued)

LCS (B8G0132-BS1) - Continued

Prepared: 7/7/2018 Analyzed: 7/7/2018

1,1-Dichloroethene	48.0900	5.0	2.6	50.0000		96.2	65 - 116		
1,1-Dichloropropene	49.7100	5.0	2.3	50.0000		99.4	80 - 117		
1,2,3-Trichloropropane	47.7300	5.0	0.54	50.0000		95.5	75 - 113		
1,2,3-Trichlorobenzene	61.9400	5.0	1.2	50.0000		124	80 - 119		L5
1,2,4-Trichlorobenzene	67.4300	5.0	1.1	50.0000		135	83 - 124		L5
1,2,4-Trimethylbenzene	57.6000	5.0	1.5	50.0000		115	87 - 114		L5
1,2-Dibromo-3-chloropropane	55.7800	10	1.6	50.0000		112	70 - 130		
1,2-Dibromoethane	49.2800	5.0	3.2	50.0000		98.6	81 - 117		
1,2-Dichlorobenzene	56.4000	5.0	1.1	50.0000		113	84 - 113		
1,2-Dichloroethane	44.4800	5.0	1.2	50.0000		89.0	77 - 126		
1,2-Dichloropropane	50.2400	5.0	1.8	50.0000		100	81 - 115		
1,3,5-Trimethylbenzene	57.3000	5.0	1.7	50.0000		115	85 - 115		
1,3-Dichlorobenzene	55.8600	5.0	1.3	50.0000		112	84 - 112		
1,3-Dichloropropane	49.8800	5.0	1.1	50.0000		99.8	84 - 110		
1,4-Dichlorobenzene	54.9400	5.0	1.2	50.0000		110	86 - 112		
2,2-Dichloropropane	47.7400	5.0	1.2	50.0000		95.5	59 - 139		
2-Chlorotoluene	54.8500	5.0	1.6	50.0000		110	82 - 111		
4-Chlorotoluene	55.2300	5.0	1.5	50.0000		110	81 - 113		
4-Isopropyltoluene	61.2200	5.0	2.3	50.0000		122	88 - 118		L5
Benzene	91.7900	5.0	0.64	100.000		91.8	83 - 112		
Bromobenzene	51.7400	5.0	1.1	50.0000		103	80 - 108		
Bromochloromethane	46.0500	5.0	0.64	50.0000		92.1	74 - 117		
Bromodichloromethane	49.3400	5.0	1.2	50.0000		98.7	83 - 112		
Bromoform	52.4700	5.0	0.80	50.0000		105	74 - 116		
Bromomethane	42.7600	5.0	2.5	50.0000		85.5	55 - 149		
Carbon disulfide	49.7600	5.0	3.5	50.0000		99.5	65 - 131		
Carbon tetrachloride	45.6200	5.0	1.2	50.0000		91.2	72 - 128		
Chlorobenzene	52.1900	5.0	1.0	50.0000		104	85 - 109		
Chloroethane	45.7400	5.0	1.1	50.0000		91.5	53 - 143		
Chloroform	47.9100	5.0	0.82	50.0000		95.8	79 - 117		
Chloromethane	40.0700	5.0	1.4	50.0000		80.1	50 - 134		
cis-1,2-Dichloroethene	46.5900	5.0	0.67	50.0000		93.2	75 - 116		
cis-1,3-Dichloropropene	54.1100	5.0	1.9	50.0000		108	80 - 118		
Di-isopropyl ether	48.2300	5.0	0.55	50.0000		96.5	72 - 123		
Dibromochloromethane	50.4500	5.0	1.0	50.0000		101	79 - 110		
Dibromomethane	47.0500	5.0	1.6	50.0000		94.1	82 - 114		
Dichlorodifluoromethane	32.6300	5.0	2.2	50.0000		65.3	42 - 144		
Ethyl Acetate	443.040	50	8.1	500.000		88.6	70 - 134		
Ethyl Ether	484.220	50	6.1	500.000		96.8	63 - 119		
Ethyl tert-butyl ether	48.7800	5.0	0.67	50.0000		97.6	61 - 136		



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Project Number : 185804220
Report To : Dion Monge
Reported : 07/10/2018

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0132 - MSVOA_S (continued)

LCS (B8G0132-BS1) - Continued

Prepared: 7/7/2018 Analyzed: 7/7/2018

Ethylbenzene	105.620	5.0	0.91	100.000		106	84 - 119			
Freon-113	52.8800	5.0	2.8	50.0000		106	71 - 126			
Hexachlorobutadiene	63.7700	5.0	2.5	50.0000		128	78 - 133			
Isopropylbenzene	56.7000	5.0	1.8	50.0000		113	73 - 123			
m,p-Xylene	112.230	10	1.5	100.000		112	86 - 121			
Methylene chloride	45.7900	5.0	2.3	50.0000		91.6	47 - 137			
MTBE	44.3200	5.0	0.63	50.0000		88.6	67 - 124			
n-Butylbenzene	63.0100	5.0	2.4	50.0000		126	89 - 125			L5
n-Propylbenzene	56.7100	5.0	2.2	50.0000		113	81 - 116			
Naphthalene	57.1000	5.0	0.97	50.0000		114	70 - 130			
o-Xylene	113.790	5.0	0.87	100.000		114	84 - 114			
sec-Butylbenzene	59.2900	5.0	2.3	50.0000		119	84 - 118			L5
Styrene	56.3600	5.0	1.5	50.0000		113	82 - 117			
tert-Amyl methyl ether	47.2000	5.0	0.59	50.0000		94.4	60 - 129			
tert-Butanol	254.920	100	19	250.000		102	22 - 150			
tert-Butylbenzene	58.7600	5.0	2.0	50.0000		118	83 - 112			L5
Tetrachloroethene	52.5400	5.0	1.6	50.0000		105	75 - 117			
Toluene	100.400	5.0	0.94	100.000		100	85 - 122			
trans-1,2-Dichloroethene	45.5000	5.0	0.59	50.0000		91.0	70 - 116			
trans-1,3-Dichloropropene	50.9800	5.0	2.1	50.0000		102	76 - 127			
Trichloroethene	51.5600	5.0	3.1	50.0000		103	79 - 116			
Trichlorofluoromethane	42.8600	5.0	1.4	50.0000		85.7	63 - 135			
Vinyl acetate	422.510	50	9.8	500.000		84.5	69 - 136			
Vinyl chloride	42.4200	5.0	1.7	50.0000		84.8	53 - 136			
Surrogate: 1,2-Dichloroethane-d4	45.04			50.0000		90.1	58 - 144			
Surrogate: 4-Bromofluorobenzene	50.80			50.0000		102	60 - 137			
Surrogate: Dibromofluoromethane	49.77			50.0000		99.5	70 - 131			
Surrogate: Toluene-d8	52.00			50.0000		104	79 - 131			

Matrix Spike (B8G0132-MS1)

Source: 1802458-02

Prepared: 7/7/2018 Analyzed: 7/7/2018

1,1,1,2-Tetrachloroethane	48.7200	5.0	0.96	50.0000	ND	97.4	41 - 125
1,1,1-Trichloroethane	43.4600	5.0	1.1	50.0000	ND	86.9	49 - 131
1,1,2,2-Tetrachloroethane	51.9200	5.0	0.62	50.0000	ND	104	28 - 134
1,1,2-Trichloroethane	47.4800	5.0	1.6	50.0000	ND	95.0	44 - 127
1,1-Dichloroethane	42.4400	5.0	0.81	50.0000	ND	84.9	54 - 119
1,1-Dichloroethene	45.4100	5.0	2.6	50.0000	ND	90.8	48 - 123
1,1-Dichloropropene	46.0400	5.0	2.3	50.0000	ND	92.1	47 - 131
1,2,3-Trichloropropane	51.8200	5.0	0.54	50.0000	ND	104	42 - 124
1,2,3-Trichlorobenzene	41.4700	5.0	1.2	50.0000	ND	82.9	0 - 131
1,2,4-Trichlorobenzene	45.9700	5.0	1.1	50.0000	ND	91.9	7 - 131



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B8G0132 - MSVOA_S (continued)

Matrix Spike (B8G0132-MS1) - Continued

Source: 1802458-02

Prepared: 7/7/2018 Analyzed: 7/7/2018

1,2,4-Trimethylbenzene	53.2300	5.0	1.5	50.0000	ND	106	26 - 135			
1,2-Dibromo-3-chloropropane	57.5400	10	1.6	50.0000	ND	115	31 - 139			
1,2-Dibromoethane	47.1400	5.0	3.2	50.0000	ND	94.3	41 - 128			
1,2-Dichlorobenzene	50.0900	5.0	1.1	50.0000	ND	100	21 - 129			
1,2-Dichloroethane	42.6700	5.0	1.2	50.0000	ND	85.3	46 - 128			
1,2-Dichloropropane	46.3600	5.0	1.8	50.0000	ND	92.7	52 - 118			
1,3,5-Trimethylbenzene	53.8300	5.0	1.7	50.0000	ND	108	26 - 136			
1,3-Dichlorobenzene	49.3000	5.0	1.3	50.0000	ND	98.6	22 - 129			
1,3-Dichloropropane	47.9600	5.0	1.1	50.0000	ND	95.9	47 - 120			
1,4-Dichlorobenzene	49.5600	5.0	1.2	50.0000	ND	99.1	22 - 130			
2,2-Dichloropropane	45.2400	5.0	1.2	50.0000	ND	90.5	38 - 139			
2-Chlorotoluene	51.1100	5.0	1.6	50.0000	ND	102	29 - 130			
4-Chlorotoluene	50.7100	5.0	1.5	50.0000	ND	101	28 - 130			
4-Isopropyltoluene	55.6400	5.0	2.3	50.0000	ND	111	23 - 141			
Benzene	85.3200	5.0	0.64	100.000	ND	85.3	52 - 119			
Bromobenzene	49.7800	5.0	1.1	50.0000	ND	99.6	33 - 122			
Bromochloromethane	43.6500	5.0	0.64	50.0000	ND	87.3	51 - 116			
Bromodichloromethane	45.4600	5.0	1.2	50.0000	ND	90.9	47 - 120			
Bromoform	49.1900	5.0	0.80	50.0000	ND	98.4	35 - 127			
Bromomethane	41.4100	5.0	2.5	50.0000	ND	82.8	34 - 143			
Carbon disulfide	48.3900	5.0	3.5	50.0000	ND	96.8	42 - 137			
Carbon tetrachloride	42.6900	5.0	1.2	50.0000	ND	85.4	44 - 138			
Chlorobenzene	47.6900	5.0	1.0	50.0000	ND	95.4	38 - 124			
Chloroethane	41.8300	5.0	1.1	50.0000	ND	83.7	37 - 140			
Chloroform	45.1100	5.0	0.82	50.0000	ND	90.2	54 - 118			
Chloromethane	39.1500	5.0	1.4	50.0000	ND	78.3	32 - 139			
cis-1,2-Dichloroethene	44.5000	5.0	0.67	50.0000	ND	89.0	51 - 116			
cis-1,3-Dichloropropene	50.0300	5.0	1.9	50.0000	ND	100	41 - 126			
Di-isopropyl ether	46.1900	5.0	0.55	50.0000	ND	92.4	50 - 122			
Dibromochloromethane	48.1800	5.0	1.0	50.0000	ND	96.4	42 - 118			
Dibromomethane	44.2900	5.0	1.6	50.0000	ND	88.6	46 - 122			
Dichlorodifluoromethane	31.0800	5.0	2.2	50.0000	ND	62.2	31 - 146			
Ethyl Acetate	442.320	50	8.1	500.000	ND	88.5	17 - 148			
Ethyl Ether	473.850	50	6.1	500.000	ND	94.8	42 - 120			
Ethyl tert-butyl ether	46.5100	5.0	0.67	50.0000	ND	93.0	41 - 133			
Ethylbenzene	96.4700	5.0	0.91	100.000	ND	96.5	38 - 136			
Freon-113	52.2200	5.0	2.8	50.0000	ND	104	43 - 139			
Hexachlorobutadiene	46.3200	5.0	2.5	50.0000	ND	92.6	2 - 135			
Isopropylbenzene	55.0200	5.0	1.8	50.0000	ND	110	31 - 136			
m,p-Xylene	99.7900	10	1.5	100.000	ND	99.8	36 - 137			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B8G0132 - MSVOA_S (continued)

Matrix Spike (B8G0132-MS1) - Continued

Source: 1802458-02

Prepared: 7/7/2018 Analyzed: 7/7/2018

Methylene chloride	42.4300	5.0	2.3	50.0000	ND	84.9	28 - 137			
MTBE	43.4800	5.0	0.63	50.0000	ND	87.0	44 - 126			
n-Butylbenzene	53.9900	5.0	2.4	50.0000	ND	108	8 - 154			
n-Propylbenzene	52.9000	5.0	2.2	50.0000	ND	106	28 - 135			
Naphthalene	46.4100	5.0	0.97	50.0000	ND	92.8	7 - 136			
o-Xylene	102.680	5.0	0.87	100.000	ND	103	35 - 129			
sec-Butylbenzene	53.7000	5.0	2.3	50.0000	ND	107	25 - 138			
Styrene	50.2100	5.0	1.5	50.0000	ND	100	33 - 128			
tert-Amyl methyl ether	45.8400	5.0	0.59	50.0000	ND	91.7	41 - 124			
tert-Butanol	253.120	100	19	250.000	ND	101	8 - 157			
tert-Butylbenzene	54.9100	5.0	2.0	50.0000	ND	110	26 - 134			
Tetrachloroethene	48.7700	5.0	1.6	50.0000	ND	97.5	36 - 130			
Toluene	92.6300	5.0	0.94	100.000	ND	92.6	44 - 136			
trans-1,2-Dichloroethene	42.3600	5.0	0.59	50.0000	ND	84.7	49 - 119			
trans-1,3-Dichloropropene	47.0900	5.0	2.1	50.0000	ND	94.2	33 - 136			
Trichloroethene	47.9600	5.0	3.1	50.0000	ND	95.9	32 - 147			
Trichlorofluoromethane	41.3100	5.0	1.4	50.0000	ND	82.6	41 - 144			
Vinyl acetate	393.940	50	9.8	500.000	ND	78.8	0 - 146			
Vinyl chloride	41.1500	5.0	1.7	50.0000	ND	82.3	39 - 142			
Surrogate: 1,2-Dichloroethane-d4	49.22			50.0000		98.4	58 - 144			
Surrogate: 4-Bromofluorobenzene	49.46			50.0000		98.9	60 - 137			
Surrogate: Dibromofluoromethane	51.53			50.0000		103	70 - 131			
Surrogate: Toluene-d8	52.45			50.0000		105	79 - 131			

Matrix Spike Dup (B8G0132-MSD1)

Source: 1802458-02

Prepared: 7/7/2018 Analyzed: 7/7/2018

1,1,1,2-Tetrachloroethane	44.0800	5.0	0.96	50.0000	ND	88.2	41 - 125	10.0	20	
1,1,1-Trichloroethane	40.0200	5.0	1.1	50.0000	ND	80.0	49 - 131	8.24	20	
1,1,2,2-Tetrachloroethane	49.9000	5.0	0.62	50.0000	ND	99.8	28 - 134	3.97	20	
1,1,2-Trichloroethane	46.1200	5.0	1.6	50.0000	ND	92.2	44 - 127	2.91	20	
1,1-Dichloroethane	39.5400	5.0	0.81	50.0000	ND	79.1	54 - 119	7.07	20	
1,1-Dichloroethene	39.5600	5.0	2.6	50.0000	ND	79.1	48 - 123	13.8	20	
1,1-Dichloropropene	42.0800	5.0	2.3	50.0000	ND	84.2	47 - 131	8.99	20	
1,2,3-Trichloropropane	50.3600	5.0	0.54	50.0000	ND	101	42 - 124	2.86	20	
1,2,3-Trichlorobenzene	36.9500	5.0	1.2	50.0000	ND	73.9	0 - 131	11.5	20	
1,2,4-Trichlorobenzene	40.7800	5.0	1.1	50.0000	ND	81.6	7 - 131	12.0	20	
1,2,4-Trimethylbenzene	46.4900	5.0	1.5	50.0000	ND	93.0	26 - 135	13.5	20	
1,2-Dibromo-3-chloropropane	56.1500	10	1.6	50.0000	ND	112	31 - 139	2.45	20	
1,2-Dibromoethane	46.1800	5.0	3.2	50.0000	ND	92.4	41 - 128	2.06	20	
1,2-Dichlorobenzene	44.5900	5.0	1.1	50.0000	ND	89.2	21 - 129	11.6	20	
1,2-Dichloroethane	41.4700	5.0	1.2	50.0000	ND	82.9	46 - 128	2.85	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B8G0132 - MSVOA_S (continued)

Matrix Spike Dup (B8G0132-MSD1) - Continued

Source: 1802458-02

Prepared: 7/7/2018 Analyzed: 7/7/2018

1,2-Dichloropropane	44.1200	5.0	1.8	50.0000	ND	88.2	52 - 118	4.95	20
1,3,5-Trimethylbenzene	46.8600	5.0	1.7	50.0000	ND	93.7	26 - 136	13.8	20
1,3-Dichlorobenzene	43.7500	5.0	1.3	50.0000	ND	87.5	22 - 129	11.9	20
1,3-Dichloropropane	46.0100	5.0	1.1	50.0000	ND	92.0	47 - 120	4.15	20
1,4-Dichlorobenzene	44.0900	5.0	1.2	50.0000	ND	88.2	22 - 130	11.7	20
2,2-Dichloropropane	41.8100	5.0	1.2	50.0000	ND	83.6	38 - 139	7.88	20
2-Chlorotoluene	45.0700	5.0	1.6	50.0000	ND	90.1	29 - 130	12.6	20
4-Chlorotoluene	44.5900	5.0	1.5	50.0000	ND	89.2	28 - 130	12.8	20
4-Isopropyltoluene	48.1500	5.0	2.3	50.0000	ND	96.3	23 - 141	14.4	20
Benzene	79.0500	5.0	0.64	100.000	ND	79.0	52 - 119	7.63	20
Bromobenzene	44.4600	5.0	1.1	50.0000	ND	88.9	33 - 122	11.3	20
Bromochloromethane	41.9500	5.0	0.64	50.0000	ND	83.9	51 - 116	3.97	20
Bromodichloromethane	44.1300	5.0	1.2	50.0000	ND	88.3	47 - 120	2.97	20
Bromoform	48.0200	5.0	0.80	50.0000	ND	96.0	35 - 127	2.41	20
Bromomethane	37.5900	5.0	2.5	50.0000	ND	75.2	34 - 143	9.67	20
Carbon disulfide	41.1200	5.0	3.5	50.0000	ND	82.2	42 - 137	16.2	20
Carbon tetrachloride	38.4100	5.0	1.2	50.0000	ND	76.8	44 - 138	10.6	20
Chlorobenzene	43.4200	5.0	1.0	50.0000	ND	86.8	38 - 124	9.37	20
Chloroethane	38.9400	5.0	1.1	50.0000	ND	77.9	37 - 140	7.16	20
Chloroform	41.9600	5.0	0.82	50.0000	ND	83.9	54 - 118	7.24	20
Chloromethane	35.8800	5.0	1.4	50.0000	ND	71.8	32 - 139	8.72	20
cis-1,2-Dichloroethene	41.4100	5.0	0.67	50.0000	ND	82.8	51 - 116	7.19	20
cis-1,3-Dichloropropene	47.1200	5.0	1.9	50.0000	ND	94.2	41 - 126	5.99	20
Di-isopropyl ether	43.9200	5.0	0.55	50.0000	ND	87.8	50 - 122	5.04	20
Dibromochloromethane	45.3700	5.0	1.0	50.0000	ND	90.7	42 - 118	6.01	20
Dibromomethane	43.4500	5.0	1.6	50.0000	ND	86.9	46 - 122	1.91	20
Dichlorodifluoromethane	28.1500	5.0	2.2	50.0000	ND	56.3	31 - 146	9.89	20
Ethyl Acetate	457.720	50	8.1	500.000	ND	91.5	17 - 148	3.42	20
Ethyl Ether	449.310	50	6.1	500.000	ND	89.9	42 - 120	5.32	20
Ethyl tert-butyl ether	46.0000	5.0	0.67	50.0000	ND	92.0	41 - 133	1.10	20
Ethylbenzene	86.9300	5.0	0.91	100.000	ND	86.9	38 - 136	10.4	20
Freon-113	43.5900	5.0	2.8	50.0000	ND	87.2	43 - 139	18.0	20
Hexachlorobutadiene	40.7200	5.0	2.5	50.0000	ND	81.4	2 - 135	12.9	20
Isopropylbenzene	47.8400	5.0	1.8	50.0000	ND	95.7	31 - 136	14.0	20
m,p-Xylene	90.2500	10	1.5	100.000	ND	90.2	36 - 137	10.0	20
Methylene chloride	40.1400	5.0	2.3	50.0000	ND	80.3	28 - 137	5.55	20
MTBE	43.2700	5.0	0.63	50.0000	ND	86.5	44 - 126	0.484	20
n-Butylbenzene	46.9600	5.0	2.4	50.0000	ND	93.9	8 - 154	13.9	20
n-Propylbenzene	46.4000	5.0	2.2	50.0000	ND	92.8	28 - 135	13.1	20
Naphthalene	42.6800	5.0	0.97	50.0000	ND	85.4	7 - 136	8.37	20



Certificate of Analysis

Stantec

735 E. Carnegie Drive, Suite 280

San Bernardino, CA 92408

Project Number : 185804220

Report To : Dion Monge

Reported : 07/10/2018

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	-------------------	----------------	----------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B8G0132 - MSVOA_S (continued)

Matrix Spike Dup (B8G0132-MSD1) - Continued

Source: 1802458-02

Prepared: 7/7/2018 Analyzed: 7/7/2018

o-Xylene	91.9700	5.0	0.87	100.000	ND	92.0	35 - 129	11.0	20	
sec-Butylbenzene	46.5500	5.0	2.3	50.0000	ND	93.1	25 - 138	14.3	20	
Styrene	45.4900	5.0	1.5	50.0000	ND	91.0	33 - 128	9.86	20	
tert-Amyl methyl ether	45.2100	5.0	0.59	50.0000	ND	90.4	41 - 124	1.38	20	
tert-Butanol	256.120	100	19	250.000	ND	102	8 - 157	1.18	20	
tert-Butylbenzene	47.7900	5.0	2.0	50.0000	ND	95.6	26 - 134	13.9	20	
Tetrachloroethene	43.2100	5.0	1.6	50.0000	ND	86.4	36 - 130	12.1	20	
Toluene	85.5100	5.0	0.94	100.000	ND	85.5	44 - 136	7.99	20	
trans-1,2-Dichloroethene	38.3600	5.0	0.59	50.0000	ND	76.7	49 - 119	9.91	20	
trans-1,3-Dichloropropene	45.5500	5.0	2.1	50.0000	ND	91.1	33 - 136	3.32	20	
Trichloroethene	43.6100	5.0	3.1	50.0000	ND	87.2	32 - 147	9.50	20	
Trichlorofluoromethane	39.1400	5.0	1.4	50.0000	ND	78.3	41 - 144	5.39	20	
Vinyl acetate	355.610	50	9.8	500.000	ND	71.1	0 - 146	10.2	20	
Vinyl chloride	36.8000	5.0	1.7	50.0000	ND	73.6	39 - 142	11.2	20	
Surrogate: 1,2-Dichloroethane-d4	51.12			50.0000		102	58 - 144			
Surrogate: 4-Bromofluorobenzene	49.31			50.0000		98.6	60 - 137			
Surrogate: Dibromofluoromethane	52.25			50.0000		104	70 - 131			
Surrogate: Toluene-d8	52.85			50.0000		106	79 - 131			



Certificate of Analysis

Stantec

735 E. Carnegie Drive, Suite 280

San Bernardino, CA 92408

Project Number : 185804220

Report To : Dion Monge

Reported : 07/10/2018

Notes and Definitions

S7	Surrogate recovery was outside of laboratory acceptance limit. Chromatogram shows high concentration of heavy hydrocarbons.
L5	Laboratory Control Sample high biased. Sample result/s was non-detect (ND) for the target analyte; therefore reanalysis was not necessary.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.



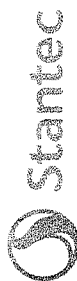
CHAIN OF CUSTODY FORM

735 E. Carnegie Dr., Suite 280, San Bernardino, CA 92408 (909)335-6116, Fax (909) 335-6120

1802450

Page 1 of 2

Client Name/Address: Stantec 735 E. Carnegie Dr, Suite 280 San Bernardino, CA 92408		Project/PO Number: 185804220		Analysis Required											
Project Manager: Dion Monge		Phone Number: (909)556-6516		Fax Number: (909)335-6120		TPH (GRO/DR/O/RO)		VOCs by EPA Method 8260B		Organochlorine pesticides EPA Method 8081		Total Lead and total arsenic EPA Method 6010		Special Instructions	
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives									
HA-3-1	soil	8oz jar	1	7-6-18	0810	-									
HA-3-2			1		0815	-									Hold
B-13-5		acetone 512210	1		0820	-									Hold
-10			1		0825	-	X		X						
-15			1		0830	-	X		X						
B-14-5			1		0840	-									Hold
-10			1		0845	-									Hold
-15			1		0850	-	X		X						
B-15-5			1		0905	-									Hold
-15			1		0915	-	X		X						
B-10-5			1		0945	-	X		X						
B-12-5			1		1020	-									Hold
-10			1		1025	-									Hold
-15			1		1030	-	X		X						
Relinquished By: [Signature]		Date/Time: 7-6-18 1440		Received By: [Signature]		Date/Time: 7/6/18 1440		Turnaround: 24 hours		Time: (Check) 5 days		Sample Integrity: (Check) normal		on ice	
Relinquished By: [Signature]		Date/Time: 7/6/18 1050		Received By: [Signature]		Date/Time: 7/6/18 1050		Turnaround: 48 hours		Time: (Check) 5 days		Sample Integrity: (Check) intact		on ice	
Relinquished By: [Signature]		Date/Time: 7/6/18 1050		Received By: [Signature]		Date/Time: 7/6/18 1050		Turnaround: 48 hours		Time: (Check) 5 days		Sample Integrity: (Check) intact		on ice	



CHAIN OF CUSTODY FORM

735 E. Carnegie Dr., Suite 280, San Bernardino, CA 92408 (909)335-6116, Fax (909) 335-6120

1802450

Page 2 of 2

Client Name/Address:		Project/PO Number:		Analysis Required													
Stantec 735 E. Carnegie Dr, Suite 280 San Bernardino, CA 92408		185804220		Phone Number: (909)556-6516		Fax Number: (909)335-6120		TPH (GRO/DR/ORO) EPA Method 8015		VOCs by EPA Method 8260B		Organochlorine pesticides EPA Method 8081		Total Lead and total arsenic EPA Method 6010		Special Instructions	
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives											
B-9-1	soil	8oz jar	1	7-6-18	1120	-											
B-9-2					1125	-											
B-9-5					1200	-											
B-10-5					1215	-	X	X									
B-7-5					1235	-	X	X									
B-4-5					1250	-	X	X									
B-3-5					1300	-	X	X									
B-6-5					1200	-	X	X									
B-5-1					1310	-			X	X							
B-5-2					1315	-											
B-5-5					1320	-			X	X							
B-11-5					1420	-			X	X							
Relinquished By: [Signature]		Date/Time: 7-6-18 1440		Received By: [Signature]		Date/Time: 7/6/18 1440		Turnaround: same-day		Time: (Check) 5 days							
Relinquished By: [Signature]		Date/Time: 7/6/18 1650		Received By: [Signature]		Date/Time: 7/6/18 1650		Turnaround: 24 hours		Time: (Check) normal							
Relinquished By: [Signature]		Date/Time:		Received in Lab By:		Date/Time:		Sample Integrity: (Check) intact		on ice							



A & R Laboratories, Inc.

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Page 1 of 53

FDA#	2030513
LA City#	10261
ELAP#s	2789
	2790
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FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

Ken Zheng

Ken Zheng, President
07/10/2018 17:18:34

Laboratory Job No. (Certificate of Analysis No.)

1807-00037

Project Name / No.

2300 Red Hill Ave., Santa Ana, CA 92705

Dates Sampled (from/to)

07/06/18 To 07/06/18

Dates Received (from/to)

07/06/18 To 07/06/18

Dates Reported (from/to)

07/09/18 To 7/10/2018

Chains of Custody Received

Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact



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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 B-1-5									Date & Time Sampled: 07/06/18 @ 10:10				
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3			LUFT GCMS	07/06/18	KZ
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ



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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 B-1-5										Date & Time Sampled: 07/06/18 @ 10:10			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DIPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research



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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 B-1-5									Date & Time Sampled: 07/06/18 @ 10:10				
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	99		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	97		70-130	%REC						EPA 8260B	07/06/18	KZ	

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FDA#	2030513
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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 B-1-5 Date & Time Sampled: 07/06/18 @ 10:10													
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Bromofluorobenzene	96		70-130	%REC							EPA 8260B	07/06/18	KZ
Sample: 002 B-2-5 Date & Time Sampled: 07/06/18 @ 10:45													
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3			LUFT GCMS	07/06/18	KZ
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 002 B-2-5										Date & Time Sampled: 07/06/18 @ 10:45			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DIPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 002 B-2-5									Date & Time Sampled:		07/06/18 @ 10:45		
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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Cust # 1567

Permit Number

Customer P.O.

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 002 B-2-5										Date & Time Sampled: 07/06/18 @ 10:45			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	101		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	95		70-130	%REC						EPA 8260B	07/06/18	KZ	
Bromofluorobenzene	95		70-130	%REC						EPA 8260B	07/06/18	KZ	
Sample: 003 B-10-5										Date & Time Sampled: 07/06/18 @ 11:08			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3		LUFT GCMS	07/06/18	KZ	
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 003 B-10-5										Date & Time Sampled: 07/06/18 @ 11:08			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 003 B-10-5										Date & Time Sampled: 07/06/18 @ 11:08			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DiPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 003 B-10-5										Date & Time Sampled: 07/06/18 @ 11:08			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	98		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	98		70-130	%REC						EPA 8260B	07/06/18	KZ	
Bromofluorobenzene	98		70-130	%REC						EPA 8260B	07/06/18	KZ	

Sample: 004 B-13-5										Date & Time Sampled: 07/06/18 @ 11:34			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3		LUFT GCMS	07/06/18	KZ	
[VOCs by GCMS]													
Acetone	<0.25	0.25	1.0	µg/L	<250	250	1,000	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

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INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 004 B-13-5										Date & Time Sampled: 07/06/18 @ 11:34			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3			EPA 8260B	07/06/18	KZ
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3			EPA 8260B	07/06/18	KZ
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ

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Date Reported 07/09/18
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Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 004 B-13-5									Date & Time Sampled:		07/06/18	@	11:34
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DiPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	0.090	0.025	0.050	µg/L	90	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 004 B-13-5									Date & Time Sampled: 07/06/18 @ 11:34				
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	0.060	0.05	0.10	µg/L	60	50	100	µg/m3	J 0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	99		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	98		70-130	%REC						EPA 8260B	07/06/18	KZ	
Bromofluorobenzene	95		70-130	%REC						EPA 8260B	07/06/18	KZ	
Sample: 005 B-13-15									Date & Time Sampled: 07/06/18 @ 12:10				
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	15.1	5	10	µg/L	15,100	5,000	10,000	µg/m3		LUFT GCMS	07/06/18	KZ	
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 005 B-13-15										Date & Time Sampled: 07/06/18 @ 12:10			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 005 B-13-15									Date & Time Sampled:		07/06/18 @ 12:10		
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DiPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

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INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 005 B-13-15										Date & Time Sampled: 07/06/18 @ 12:10			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	0.17	0.05	0.10	µg/L	170	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	0.050	0.025	0.050	µg/L	50	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	99		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	95		70-130	%REC						EPA 8260B	07/06/18	KZ	
Bromofluorobenzene	95		70-130	%REC						EPA 8260B	07/06/18	KZ	

Sample: 006 **B-14-5**

Sample Matrix: **Soil Vapor**

Purge Volume Sampled: **3**

Date & Time Sampled: 07/06/18 @ 12:40

[TPH Gasoline by GCMS]



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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 006 B-14-5										Date & Time Sampled: 07/06/18 @ 12:40			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3			LUFT GCMS	07/06/18	KZ
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 006 B-14-5									Date & Time Sampled:		07/06/18	@	12:40
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DIPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	0.050	0.025	0.050	µg/L	50	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	0.080	0.025	0.050	µg/L	80	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 006 B-14-5									Date & Time Sampled:		07/06/18 @ 12:40		
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	J	0.50	EPA 8260B	07/06/18	KZ
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Styrene	0.030	0.025	0.050	µg/L	30	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Toluene	0.20	0.025	0.050	µg/L	200	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	0.20	0.05	0.10	µg/L	200	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	0.060	0.025	0.050	µg/L	60	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	100		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	98		70-130	%REC						EPA 8260B	07/06/18	KZ	



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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 006 B-14-5 Date & Time Sampled: 07/06/18 @ 12:40													
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Bromofluorobenzene	98		70-130	%REC							EPA 8260B	07/06/18	KZ
Sample: 007 B-14-15 Date & Time Sampled: 07/06/18 @ 13:10													
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3			LUFT GCMS	07/06/18	KZ
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ

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INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 007 B-14-15									Date & Time Sampled:		07/06/18 @ 13:10		
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DiPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	



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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 007 B-14-15										Date & Time Sampled: 07/06/18 @ 13:10			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	0.060	0.025	0.050	µg/L	60	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	0.070	0.025	0.050	µg/L	70	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	0.090	0.05	0.10	µg/L	90	50	100	µg/m3	J 0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	0.030	0.025	0.050	µg/L	30	25	50	µg/m3	J 0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 007 B-14-15										Date & Time Sampled: 07/06/18 @ 13:10			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	99		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	98		70-130	%REC						EPA 8260B	07/06/18	KZ	
Bromofluorobenzene	95		70-130	%REC						EPA 8260B	07/06/18	KZ	
Sample: 008 B-15-5										Date & Time Sampled: 07/06/18 @ 13:45			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3		LUFT GCMS	07/06/18	KZ	
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 008 B-15-5										Date & Time Sampled: 07/06/18 @ 13:45			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

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INTERPHASE
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6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 008 B-15-5										Date & Time Sampled: 07/06/18 @ 13:45			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DIPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 008 B-15-5										Date & Time Sampled: 07/06/18 @ 13:45			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	98		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	96		70-130	%REC						EPA 8260B	07/06/18	KZ	
Bromofluorobenzene	97		70-130	%REC						EPA 8260B	07/06/18	KZ	
Sample: 009 B-15-15										Date & Time Sampled: 07/06/18 @ 14:02			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3		LUFT GCMS	07/06/18	KZ	
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 009 B-15-15										Date & Time Sampled: 07/06/18 @ 14:02			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 009 B-15-15										Date & Time Sampled: 07/06/18 @ 14:02			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DiPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

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INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 009 B-15-15					Date & Time Sampled: 07/06/18 @ 14:02								
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	98		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	96		70-130	%REC						EPA 8260B	07/06/18	KZ	
Bromofluorobenzene	97		70-130	%REC						EPA 8260B	07/06/18	KZ	
Sample: 010 B-12-5					Date & Time Sampled: 07/06/18 @ 14:50								
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3		LUFT GCMS	07/06/18	KZ	
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 010 B-12-5										Date & Time Sampled: 07/06/18 @ 14:50			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 010 B-12-5									Date & Time Sampled:		07/06/18	@	14:50
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DiPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 010 B-12-5									Date & Time Sampled: 07/06/18 @ 14:50				
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Tetrachloroethene	0.050	0.025	0.050	µg/L	50	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	0.070	0.025	0.050	µg/L	70	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	100		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	98		70-130	%REC						EPA 8260B	07/06/18	KZ	
Bromofluorobenzene	97		70-130	%REC						EPA 8260B	07/06/18	KZ	

Sample: 011 **B-12-15**

Sample Matrix: **Soil Vapor**

Date & Time Sampled: 07/06/18 @ 15:20

Purge Volume Sampled: **3**

[TPH Gasoline by GCMS]



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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 011 B-12-15										Date & Time Sampled: 07/06/18 @ 15:20			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3			LUFT GCMS	07/06/18	KZ
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 011 B-12-15									Date & Time Sampled:		07/06/18 @ 15:20		
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DIPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 011 B-12-15									Date & Time Sampled:		07/06/18	@	15:20
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	97		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	96		70-130	%REC						EPA 8260B	07/06/18	KZ	



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LOS ANGELES, CA 90040

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Date Received 07/06/18
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Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 011 B-12-15 Date & Time Sampled: 07/06/18 @ 15:20													
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Bromofluorobenzene	96		70-130	%REC							EPA 8260B	07/06/18	KZ
Sample: 012 B-6-5 Date & Time Sampled: 07/06/18 @ 16:00													
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3			LUFT GCMS	07/06/18	KZ
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 012 B-6-5										Date & Time Sampled: 07/06/18 @ 16:00			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DiPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 012 B-6-5										Date & Time Sampled: 07/06/18 @ 16:00			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3		0.50	EPA 8260B	07/06/18	KZ
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Styrene	0.030	0.025	0.050	µg/L	30	25	50	µg/m3	J	0.50	EPA 8260B	07/06/18	KZ
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Toluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3		0.50	EPA 8260B	07/06/18	KZ
m,p-Xylenes	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3		0.50	EPA 8260B	07/06/18	KZ
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3		0.50	EPA 8260B	07/06/18	KZ

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FDA#	2030513
LA City#	10261
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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 012 B-6-5 Date & Time Sampled: 07/06/18 @ 16:00													
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	96		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	97		70-130	%REC						EPA 8260B	07/06/18	KZ	
Bromofluorobenzene	97		70-130	%REC						EPA 8260B	07/06/18	KZ	
Sample: 013 B-8-5 Date & Time Sampled: 07/06/18 @ 16:30													
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3		LUFT GCMS	07/06/18	KZ	
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 013 B-8-5										Date & Time Sampled: 07/06/18 @ 16:30			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethane	0.22	0.025	0.050	µg/L	220	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 013 B-8-5									Date & Time Sampled: 07/06/18 @ 16:30				
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DIPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Tetrachloroethene	0.090	0.025	0.050	µg/L	90	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 013 B-8-5 Sample Matrix: Soil Vapor Purge Volume Sampled: 3 continued									Date & Time Sampled: 07/06/18 @ 16:30				
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	93		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	96		70-130	%REC						EPA 8260B	07/06/18	KZ	
Bromofluorobenzene	96		70-130	%REC						EPA 8260B	07/06/18	KZ	
Sample: 014 B-8-5DUP Sample Matrix: Soil Vapor Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3		LUFT GCMS	07/06/18	KZ	
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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INTERPHASE
ROSE WILLIAMS
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LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 014 B-8-5DUP										Date & Time Sampled: 07/06/18 @ 16:30			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethane	0.31	0.025	0.050	µg/L	310	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 014 B-8-5DUP									Date & Time Sampled:		07/06/18 @ 16:30		
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DiPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Tetrachloroethene	0.10	0.025	0.050	µg/L	100	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

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ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 014 B-8-5DUP									Date & Time Sampled:		07/06/18 @ 16:30		
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	97		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	97		70-130	%REC						EPA 8260B	07/06/18	KZ	
Bromofluorobenzene	103		70-130	%REC						EPA 8260B	07/06/18	KZ	
Sample: 015 B-9-5									Date & Time Sampled:		07/06/18 @ 17:35		
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3		LUFT GCMS	07/06/18	KZ	
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 015 B-9-5										Date & Time Sampled: 07/06/18 @ 17:35			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

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INTERPHASE
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Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 015 B-9-5 Sample Matrix: Soil Vapor Purge Volume Sampled: 3 continued									Date & Time Sampled: 07/06/18 @ 17:35				
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DiPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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LA City#	10261
ELAP#s	2789
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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 015 B-9-5										Date & Time Sampled: 07/06/18 @ 17:35			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	98		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	97		70-130	%REC						EPA 8260B	07/06/18	KZ	
Bromofluorobenzene	98		70-130	%REC						EPA 8260B	07/06/18	KZ	

Sample: 016 **B-11-5**

Sample Matrix: **Soil Vapor**

Date & Time Sampled: 07/06/18 @ 17:55

Purge Volume Sampled: **3**

[TPH Gasoline by GCMS]



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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 016 B-11-5										Date & Time Sampled: 07/06/18 @ 17:55			
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
C4-C12	<5	5	10	µg/L		5,000	10,000	µg/m3			LUFT GCMS	07/06/18	KZ
[VOCs by GCMS]													
Acetone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Amyl Methyl Ether (TAME)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Benzene	<0.02	0.018	0.025	µg/L	<18	18	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromodichloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromoform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Bromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
t-Butanol (TBA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
2-Butanone (MEK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
n-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
sec-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
tert-Butylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Disulfide	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Carbon Tetrachloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloroform	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Chloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
2-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
4-Chlorotoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
Dibromochloromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,2-Dibromoethane (EDB)	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ
1,2-Dibromo-3-Chloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50		EPA 8260B	07/06/18	KZ

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 016 B-11-5									Date & Time Sampled:		07/06/18	@	17:55
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Dibromomethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,4-Dichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Dichlorodifluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,2-Dichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2,2-Dichloropropane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
cis-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
trans-1,3-Dichloropropene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Diisopropyl Ether (DIPE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Hexachlorobutadiene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
2-Hexanone	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Isopropylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Isopropyltoluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methylene Chloride	<0.03	0.025	0.05	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 016 B-11-5									Date & Time Sampled: 07/06/18 @ 17:55				
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Naphthalene	<0.02	0.016	0.025	µg/L	<16	16	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
n-Propylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Styrene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2,2-Tetrachloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Tetrachloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Toluene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trichlorobenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,1-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,1,2-Trichloroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichloroethene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,3-Trichloropropane	<0.01	0.01	0.050	µg/L	<10	10	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorofluoromethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Trichlorotrifluoroethane	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,2,4-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
1,3,5-Trimethylbenzene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
Vinyl Chloride	<0.01	0.0125	0.025	µg/L	<13	13	25	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
m,p-Xylenes	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
o-Xylene	<0.03	0.025	0.050	µg/L	<25	25	50	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.25	0.25	0.50	µg/L	<250	250	500	µg/m3	0.50	EPA 8260B	07/06/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	89		70-130	%REC						EPA 8260B	07/06/18	KZ	
Toluene-D8	92		70-130	%REC						EPA 8260B	07/06/18	KZ	



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1807-00037

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/09/18
Date Received 07/06/18
Invoice No. 82918
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 016 B-11-5												Date & Time Sampled: 07/06/18 @ 17:55	
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Bromofluorobenzene	81		70-130	%REC							EPA 8260B	07/06/18	KZ

Respectfully Submitted:

Ken Zheng

Ken Zheng - President

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL
B1= BOD blank is over specifications . The reported result may be biased high.
D = Surrogate recoveries are not calculated due to sample dilution
E = Estimated value
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL

ABBREVIATIONS

DF = Dilution Factor
RL = Reporting Limit
MDL = Method Detection Limit
Qual = Qualifier
Tech = Technician

As regulatory limits change frequently, Microbac advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.



A & R Laboratories, Inc.

1650 S. GROVE AVE., SUITE C
ONTAIRE, CA 91761

951-779-0310

www.arlaboratories.com

FAX 951-779-0344

office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#s	2789
	2790
	2122

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FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

QUALITY CONTROL DATA REPORT

INTERPHASE

LOS ANGELES, CA 90040

1807-00037

Date Reported 07/09/2018

Date Received 07/06/2018

Date Sampled 07/06/2018

Invoice No. 82918

Customer # 1567

Customer P.O.

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Method # EPA 8260B

QC Reference # 74726 Date Analyzed: 7/6/2018 Technician: KZ

Samples 001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016

Results

	LCS %REC	LCS %DUP	LCS %RPD	BLKSRR% REC
--	----------	----------	----------	----------------

1,1-Dichloroethene	105	113	6.9	
Benzene	94	102	7.5	
Bromofluorobenzene				97
Chlorobenzene	106	115	7.6	
Dibromofluoromethan				99
Toluene	97	104	7.2	
Toluene-D8				95
Trichloroethene	104	112	7.6	

Control Ranges

LCS %REC	LCS %RPD	BLKSRR%REC
----------	----------	------------

70 - 130	0 - 25	
70 - 130	0 - 25	
		50 - 150
70 - 130	0 - 25	
		50 - 150
70 - 130	0 - 25	
		50 - 150
70 - 130	0 - 25	

Method # LUFT GCMS

QC Reference # 74727 Date Analyzed: 7/6/2018 Technician: KZ

Samples 001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016

Results

	LCS %REC	LCS %DUP	LCS %RPD
--	----------	----------	----------

C4-C12	96	101	5
--------	----	-----	---

Control Ranges

LCS %REC	LCS %RPD
----------	----------

70 - 130	0 - 25
----------	--------



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QUALITY CONTROL DATA REPORT

1807-00037

INTERPHASE

Date Reported 07/09/2018

Date Received 07/06/2018

Date Sampled 07/06/2018

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Method blank results

Ref	Test Name	Result	Qualif	Units	MDL	Ref	Test Name	Result	Qualif	Units	MDL
74726	Acetone	<0.2500		µg/L	0.2500		Isopropylbenzene	<0.0250		µg/L	0.0250
	t-Amyl Methyl Ether (TAME)	<0.0250		µg/L	0.0250		4-Isopropyltoluene	<0.0250		µg/L	0.0250
	Benzene	<0.0180		µg/L	0.0180		Methylene Chloride	<0.0250		µg/L	0.0250
	Bromobenzene	<0.0250		µg/L	0.0250		4-Methyl-2-Pentanone (MIBK)	<0.2500		µg/L	0.2500
	Bromochloromethane	<0.0250		µg/L	0.0250		Methyl-t-butyl Ether (MtBE)	<0.0250		µg/L	0.0250
	Bromodichloromethane	<0.0250		µg/L	0.0250		Naphthalene	<0.0160		µg/L	0.0160
	Bromoform	<0.0250		µg/L	0.0250		n-Propylbenzene	<0.0250		µg/L	0.0250
	Bromomethane	<0.0250		µg/L	0.0250		Styrene	<0.0250		µg/L	0.0250
	t-Butanol (TBA)	<0.2500		µg/L	0.2500		1,1,1,2-Tetrachloroethane	<0.0250		µg/L	0.0250
	2-Butanone (MEK)	<0.2500		µg/L	0.2500		1,1,2,2-Tetrachloroethane	<0.0250		µg/L	0.0250
	n-Butylbenzene	<0.0250		µg/L	0.0250		Tetrachloroethene	<0.0250		µg/L	0.0250
	sec-Butylbenzene	<0.0250		µg/L	0.0250		Toluene	<0.0250		µg/L	0.0250
	tert-Butylbenzene	<0.0250		µg/L	0.0250		1,2,3-Trichlorobenzene	<0.0250		µg/L	0.0250
	Carbon Disulfide	<0.2500		µg/L	0.2500		1,2,4-Trichlorobenzene	<0.0250		µg/L	0.0250
	Carbon Tetrachloride	<0.0125		µg/L	0.0125		1,1,1-Trichloroethane	<0.0250		µg/L	0.0250
	Chlorobenzene	<0.0250		µg/L	0.0250		1,1,2-Trichloroethane	<0.0250		µg/L	0.0250
	Chloroethane	<0.0250		µg/L	0.0250		Trichloroethene	<0.0250		µg/L	0.0250
	Chloroform	<0.0250		µg/L	0.0250		1,2,3-Trichloropropane	<0.0100		µg/L	0.0100
	Chloromethane	<0.0250		µg/L	0.0250		Trichlorofluoromethane	<0.0250		µg/L	0.0250
	2-Chlorotoluene	<0.0250		µg/L	0.0250		Trichlorotrifluoroethane	<0.0250		µg/L	0.0250
	4-Chlorotoluene	<0.0250		µg/L	0.0250		1,2,4-Trimethylbenzene	<0.0250		µg/L	0.0250
	Dibromochloromethane	<0.0250		µg/L	0.0250		1,3,5-Trimethylbenzene	<0.0250		µg/L	0.0250
	1,2-Dibromoethane (EDB)	<0.0100		µg/L	0.0100		Vinyl Chloride	<0.0125		µg/L	0.0125
	1,2-Dibromo-3-Chloropropane	<0.0100		µg/L	0.0100		m,p-Xylenes	<0.0500		µg/L	0.0500
	Dibromomethane	<0.0250		µg/L	0.0250		o-Xylene	<0.0250		µg/L	0.0250
	1,2-Dichlorobenzene	<0.0250		µg/L	0.0250		Isopropanol (IPA)	<0.2500		µg/L	0.2500
	1,3-Dichlorobenzene	<0.0250		µg/L	0.0250	74727	C4-C12	<5		µg/L	5
	1,4-Dichlorobenzene	<0.0250		µg/L	0.0250						
	Dichlorodifluoromethane	<0.0250		µg/L	0.0250						
	1,1-Dichloroethane	<0.0250		µg/L	0.0250						
	1,2-Dichloroethane	<0.0250		µg/L	0.0250						
	1,1-Dichloroethene	<0.0250		µg/L	0.0250						
	cis-1,2-Dichloroethene	<0.0250		µg/L	0.0250						
	trans-1,2-Dichloroethene	<0.0250		µg/L	0.0250						
	1,2-Dichloropropane	<0.0250		µg/L	0.0250						
	1,3-Dichloropropane	<0.0250		µg/L	0.0250						
	2,2-Dichloropropane	<0.0250		µg/L	0.0250						
	1,1-Dichloropropene	<0.0250		µg/L	0.0250						
	cis-1,3-Dichloropropene	<0.0250		µg/L	0.0250						
	trans-1,3-Dichloropropene	<0.0250		µg/L	0.0250						
	Diisopropyl Ether (DiPE)	<0.0250		µg/L	0.0250						
	Ethylbenzene	<0.0250		µg/L	0.0250						
	Ethyl-t-Butyl Ether (EtBE)	<0.0250		µg/L	0.0250						
	Hexachlorobutadiene	<0.0250		µg/L	0.0250						
	2-Hexanone	<0.2500		µg/L	0.2500						



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QUALITY CONTROL DATA REPORT

INTERPHASE

1807-00037

Date Reported 07/09/2018

Date Received 07/06/2018

Date Sampled 07/06/2018

Project: 2300 Red Hill Ave., Santa Ana, CA 92705

Respectfully Submitted:

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

ARL

A & R Laboratories

1650 S. Grove Ave., Ste C, Ontario, CA 91761
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E-mail: office@arlaboratories.com

CHAIN OF CUSTODY

A & R Work Order #:

1807-37

Page 1 of 1

Client Name Interphase				☐ Chilled		Analyses Requested												Turn Around Time Requested ☐ Rush 8 12 24 48 Hours ☒ Normal	
E-mail				☒ Intact															
Address 6200 Peachtree St. Los Angeles, CA 90040				☒ Seal															
Report Attention Rose W.		Phone # 323) 278-7700		Sampled By															
Project No./ Name		Project Site 2300 Reed Hill Ave. Santa Ana, CA																	
Lab # (Lab use)	Client Sample ID	Sample Collection		Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks			
1	B-1-5	7/6/18	10:10	AR			X		X							3PV	Arrived 7:00 AM		
2	B-2-5		10:45																
3	B-10-5		11:08																
4	B-13-5		11:34																
5	B-13-15		12:10																
6	B-14-5		12:40																
7	B-14-15		13:10																
8	B-15-5		13:45																
9	B-15-15		14:02																
10	B-12-5		14:50																
11	B-12-15		15:20																
12	B-6-5		16:00																
13	B-8-5		16:30																
14	B-8-5 dup		16:30																
15	B-9-5		17:35																
16	B-11-5		17:55																
-																			

Relinquished By	Company	Date 7/6/18	Time 18:40	Received By	Company	Date 7/6/18	Time 18:40
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code: DW=Drinking Water GW=Ground Water WW=Waste Water SD=Solid Waste	SL=Sludge SS=Soil/Sediment AR=Air PP=Pure Product	Preservative Code IC=Ice HC=HCl HN=HNO3	SH=NaOH ST=Na2S2O3 HS=H2SO4	* Sample Container Types: T=Tedlar Air Bag G=Glass Container ST= Steel Tube	B= Brass Tube P=Plastic Bottle V=VOA Vial	E= EnCore
---	---	---	-----------------------------------	---	---	-----------



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CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

Ken Zheng

Ken Zheng, President
07/10/2018 18:40:34

Laboratory Job No. (Certificate of Analysis No.)

1807-00044

Project Name / No.

2300 RED HILL AVE., SANTA ANA, CA

Dates Sampled (from/to)

07/06/18 To 07/06/18

Dates Received (from/to)

07/06/18 To 07/06/18

Dates Reported (from/to)

07/10/18 To 7/10/2018

Chains of Custody Received

Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact



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CERTIFICATE OF ANALYSIS

1807-00044

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/10/18
Date Received 07/06/18
Invoice No. 82946
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 RED HILL AVE., SANTA ANA, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 B-3-5									Date & Time Sampled: 07/06/18 @ 18:00				
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L	<5,000	5,000	10,000	µg/m3	1.0	LUFT GCMS	07/07/18	KZ	
[VOCs by GCMS]													
Acetone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Bromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Chloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dibromoethane (EDB)	<0.020	0.02	0.10	µg/L	<20	20	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	



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6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/10/18
Date Received 07/06/18
Invoice No. 82946
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 RED HILL AVE., SANTA ANA, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 B-3-5									Date & Time Sampled:		07/06/18 @ 18:00		
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
1,2-Dibromo-3-Chloropropane	<0.020	0.02	0.10	µg/L	<20	20	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
cis-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
trans-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Diisopropyl Ether (DiPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Ethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Methylene Chloride	<0.05	0.05	0.1	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	

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USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research



A & R Laboratories, Inc.

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CERTIFICATE OF ANALYSIS

1807-00044

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/10/18
Date Received 07/06/18
Invoice No. 82946
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 RED HILL AVE., SANTA ANA, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 B-3-5									Date & Time Sampled: 07/06/18 @ 18:00				
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,2,2-Tetrachloroethane	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Tetrachloroethene	0.34	0.05	0.10	µg/L	340	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Toluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Trichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,3-Trichloropropane	<0.020	0.02	0.10	µg/L	<20	20	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Trichlorotrifluoroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Vinyl Chloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
m,p-Xylenes	0.37	0.1	0.20	µg/L	370	100	200	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
o-Xylene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	102		70-130	%REC						EPA 8260B	07/07/18	KZ	
Toluene-D8	102		70-130	%REC						EPA 8260B	07/07/18	KZ	

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Project: 2300 RED HILL AVE., SANTA ANA, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 B-3-5 Date & Time Sampled: 07/06/18 @ 18:00													
Sample Matrix: Soil Vapor													
Purge Volume Sampled: 3													
.....continued													
Bromofluorobenzene	103		70-130	%REC							EPA 8260B	07/07/18	KZ
Sample: 002 B-4-5 Date & Time Sampled: 07/06/18 @ 18:07													
Sample Matrix: Soil Vapor													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L	<5,000	5,000	10,000	µg/m3	1.0		LUFT GCMS	07/07/18	KZ
[VOCs by GCMS]													
Acetone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0		EPA 8260B	07/07/18	KZ
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Bromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0		EPA 8260B	07/07/18	KZ
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0		EPA 8260B	07/07/18	KZ
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Chloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ

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Cust # 1567
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Customer P.O.

Project: 2300 RED HILL AVE., SANTA ANA, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 002 B-4-5 Sample Matrix: Soil Vapor continued									Date & Time Sampled: 07/06/18 @ 18:07				
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dibromoethane (EDB)	<0.020	0.02	0.10	µg/L	<20	20	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.020	0.02	0.10	µg/L	<20	20	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
cis-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
trans-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Diisopropyl Ether (DiPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Ethylbenzene	0.19	0.05	0.10	µg/L	190	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	



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Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 002 B-4-5										Date & Time Sampled: 07/06/18 @ 18:07			
Sample Matrix: Soil Vapor													
.....continued													
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Methylene Chloride	<0.05	0.05	0.1	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,2,2-Tetrachloroethane	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Tetrachloroethene	0.34	0.05	0.10	µg/L	340	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Toluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Trichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,3-Trichloropropane	<0.020	0.02	0.10	µg/L	<20	20	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Trichlorotrifluoroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Vinyl Chloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
m,p-Xylenes	0.37	0.1	0.20	µg/L	370	100	200	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
o-Xylene	0.22	0.05	0.10	µg/L	220	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
[VOC Vapor Sampling Tracer]													



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Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 002 B-4-5										Date & Time Sampled: 07/06/18 @ 18:07			
Sample Matrix: Soil Vapor													
.....continued													
Isopropanol (IPA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0		EPA 8260B	07/07/18	KZ
[VOC Surrogates]													
Dibromofluoromethane	100		70-130	%REC							EPA 8260B	07/07/18	KZ
Toluene-D8	102		70-130	%REC							EPA 8260B	07/07/18	KZ
Bromofluorobenzene	102		70-130	%REC							EPA 8260B	07/07/18	KZ
Sample: 003 B-5-5										Date & Time Sampled: 07/06/18 @ 18:12			
Sample Matrix: Soil Vapor													
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L	<5,000	5,000	10,000	µg/m3	1.0		LUFT GCMS	07/07/18	KZ
[VOCs by GCMS]													
Acetone	<0.50	0.5	1.0	µg/L		500	1,000	µg/m3	1.0		EPA 8260B	07/07/18	KZ
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Bromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0		EPA 8260B	07/07/18	KZ
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0		EPA 8260B	07/07/18	KZ
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m3	1.0		EPA 8260B	07/07/18	KZ
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0		EPA 8260B	07/07/18	KZ



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CERTIFICATE OF ANALYSIS

1807-00044

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/10/18
Date Received 07/06/18
Invoice No. 82946
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 RED HILL AVE., SANTA ANA, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 003 B-5-5									Date & Time Sampled: 07/06/18 @ 18:12				
Sample Matrix: Soil Vapor													
.....continued													
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Chloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dibromoethane (EDB)	<0.020	0.02	0.10	µg/L	<20	20	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.020	0.02	0.10	µg/L	<20	20	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
cis-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
trans-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Diisopropyl Ether (DIPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Ethylbenzene	0.18	0.05	0.10	µg/L	180	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	



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INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/10/18
Date Received 07/06/18
Invoice No. 82946
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 RED HILL AVE., SANTA ANA, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 003 B-5-5					Date & Time Sampled: 07/06/18 @ 18:12								
Sample Matrix: Soil Vapor													
.....continued													
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Methylene Chloride	<0.05	0.05	0.1	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,2,2-Tetrachloroethane	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Tetrachloroethene	0.37	0.05	0.10	µg/L	370	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Toluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Trichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,3-Trichloropropane	<0.020	0.02	0.10	µg/L	<20	20	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Trichlorotrifluoroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Vinyl Chloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m3	1.0	EPA 8260B	07/07/18	KZ	

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CERTIFICATE OF ANALYSIS

1807-00044

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/10/18
Date Received 07/06/18
Invoice No. 82946
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 RED HILL AVE., SANTA ANA, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 003 B-5-5 Sample Matrix: Soil Vapor continued									Date & Time Sampled: 07/06/18 @ 18:12				
m,p-Xylenes	0.37	0.1	0.20	µg/L	370	100	200	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
o-Xylene	0.22	0.05	0.10	µg/L	220	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
[VOC Surrogates]													
Dibromofluoromethane	102		70-130	%REC						EPA 8260B	07/07/18	KZ	
Toluene-D8	102		70-130	%REC						EPA 8260B	07/07/18	KZ	
Bromofluorobenzene	103		70-130	%REC						EPA 8260B	07/07/18	KZ	
Sample: 004 B-7-5 Sample Matrix: Soil Vapor									Date & Time Sampled: 07/06/18 @ 18:07				
[TPH Gasoline by GCMS]													
C4-C12	<5	5	10	µg/L	<5,000	5,000	10,000	µg/m3	1.0	LUFT GCMS	07/07/18	KZ	
[VOCs by GCMS]													
Acetone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
t-Amyl Methyl Ether (TAME)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Benzene	<0.036	0.036	0.050	µg/L	<36	36	50	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Bromobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Bromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Bromodichloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Bromoform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Bromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
t-Butanol (TBA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2-Butanone (MEK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
n-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
sec-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
tert-Butylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	

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Project: 2300 RED HILL AVE., SANTA ANA, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 004 B-7-5 Sample Matrix: Soil Vapor continued									Date & Time Sampled: 07/06/18 @ 18:07				
Carbon Disulfide	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Carbon Tetrachloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Chlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Chloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Chloroform	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Chloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
4-Chlorotoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Dibromochloromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dibromoethane (EDB)	<0.020	0.02	0.10	µg/L	<20	20	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dibromo-3-Chloropropane	<0.020	0.02	0.10	µg/L	<20	20	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Dibromomethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,3-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,4-Dichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Dichlorodifluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
cis-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
trans-1,2-Dichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,3-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2,2-Dichloropropane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
cis-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	

The data and information on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition that it is not to be reproduced, wholly or in part, for advertising or other purposes without approval from the laboratory.

USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research



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CERTIFICATE OF ANALYSIS

1807-00044

INTERPHASE
ROSE WILLIAMS
6200 PEACHTREE STREET
LOS ANGELES, CA 90040

Date Reported 07/10/18
Date Received 07/06/18
Invoice No. 82946
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 RED HILL AVE., SANTA ANA, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 004 B-7-5									Date & Time Sampled: 07/06/18 @ 18:07				
Sample Matrix: Soil Vapor													
.....continued													
trans-1,3-Dichloropropene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Diisopropyl Ether (DiPE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Ethylbenzene	0.19	0.05	0.10	µg/L	190	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Ethyl-t-Butyl Ether (EtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Hexachlorobutadiene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
2-Hexanone	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Isopropylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
4-Isopropyltoluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Methylene Chloride	<0.05	0.05	0.1	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
4-Methyl-2-Pentanone (MIBK)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Methyl-t-butyl Ether (MtBE)	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Naphthalene	<0.032	0.032	0.050	µg/L	<32	32	50	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
n-Propylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Styrene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,1,2-Tetrachloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,2,2-Tetrachloroethane	<0.05	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Tetrachloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Toluene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,3-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,4-Trichlorobenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,1-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,1,2-Trichloroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Trichloroethene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
1,2,3-Trichloropropane	<0.020	0.02	0.10	µg/L	<20	20	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Trichlorofluoromethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	
Trichlorotrifluoroethane	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ	



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CERTIFICATE OF ANALYSIS

1807-00044

INTERPHASE
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Date Reported 07/10/18
Date Received 07/06/18
Invoice No. 82946
Cust # 1567
Permit Number
Customer P.O.

Project: 2300 RED HILL AVE., SANTA ANA, CA

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech	
Sample: 004 B-7-5										Date & Time Sampled:		07/06/18	@	18:07
Sample Matrix: Soil Vapor														
.....continued														
1,2,4-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ		
1,3,5-Trimethylbenzene	<0.050	0.05	0.10	µg/L	<50	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ		
Vinyl Chloride	<0.025	0.025	0.050	µg/L	<25	25	50	µg/m3	1.0	EPA 8260B	07/07/18	KZ		
m,p-Xylenes	0.40	0.1	0.20	µg/L	400	100	200	µg/m3	1.0	EPA 8260B	07/07/18	KZ		
o-Xylene	0.23	0.05	0.10	µg/L	230	50	100	µg/m3	1.0	EPA 8260B	07/07/18	KZ		
[VOC Vapor Sampling Tracer]														
Isopropanol (IPA)	<0.50	0.5	1.0	µg/L	<500	500	1,000	µg/m3	1.0	EPA 8260B	07/07/18	KZ		
[VOC Surrogates]														
Dibromofluoromethane	103		70-130	%REC						EPA 8260B	07/07/18	KZ		
Toluene-D8	102		70-130	%REC						EPA 8260B	07/07/18	KZ		
Bromofluorobenzene	102		70-130	%REC						EPA 8260B	07/07/18	KZ		

Respectfully Submitted:

Ken Zheng

Ken Zheng - President

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL
B1= BOD blank is over specifications . The reported result may be biased high.
D = Surrogate recoveries are not calculated due to sample dilution
E = Estimated value
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference
J = Analyte concentration detected between RL and MDL

ABBREVIATIONS

DF = Dilution Factor
RL = Reporting Limit
MDL = Method Detection Limit
Qual = Qualifier
Tech = Technician

As regulatory limits change frequently, Microbac advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.



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QUALITY CONTROL DATA REPORT

INTERPHASE

LOS ANGELES, CA 90040

1807-00044

Date Reported 07/10/2018

Date Received 07/06/2018

Date Sampled 07/06/2018

Invoice No. 82946

Customer # 1567

Customer P.O.

Project: 2300 RED HILL AVE., SANTA ANA, CA

Method # EPA 8260B				
QC Reference #	74729	Date Analyzed: 7/7/2018		Technician: KZ
Samples	001 002 003 004			
Results		Control Ranges		
	LCS %REC	BLKSRR% REC	LCS %REC	BLKSRR%REC
1,1-Dichloroethene	100		70 - 130	
Benzene	98		70 - 130	
Bromofluorobenzene		104		50 - 150
Chlorobenzene	104		70 - 130	
Dibromofluoromethan		102		50 - 150
Toluene	104		70 - 130	
Toluene-D8		103		50 - 150
Trichloroethene	104		70 - 130	

Method # LUFT GCMS				
QC Reference #	74730	Date Analyzed: 7/7/2018		Technician: KZ
Samples	001 002 003 004			
Results		Control Ranges		
	LCS %REC	LCS %REC		
C4-C12	101	70 - 130		



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QUALITY CONTROL DATA REPORT

1807-00044

INTERPHASE

Date Reported 07/10/2018

Date Received 07/06/2018

Date Sampled 07/06/2018

Project: 2300 RED HILL AVE., SANTA ANA, CA

Method blank results

Ref	Test Name	Result	Qualif	Units	MDL	Ref	Test Name	Result	Qualif	Units	MDL
74729	Acetone	<0.50		µg/L	0.50		Isopropylbenzene	<0.050		µg/L	0.050
	t-Amyl Methyl Ether (TAME)	<0.050		µg/L	0.050		4-Isopropyltoluene	<0.050		µg/L	0.050
	Benzene	<0.036		µg/L	0.036		Methylene Chloride	<0.05		µg/L	0.05
	Bromobenzene	<0.050		µg/L	0.050		4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	0.50
	Bromochloromethane	<0.050		µg/L	0.050		Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	0.050
	Bromodichloromethane	<0.050		µg/L	0.050		Naphthalene	<0.032		µg/L	0.032
	Bromoform	<0.050		µg/L	0.050		n-Propylbenzene	<0.050		µg/L	0.050
	Bromomethane	<0.050		µg/L	0.050		Styrene	<0.050		µg/L	0.050
	t-Butanol (TBA)	<0.50		µg/L	0.50		1,1,1,2-Tetrachloroethane	<0.050		µg/L	0.050
	2-Butanone (MEK)	<0.50		µg/L	0.50		1,1,2,2-Tetrachloroethane	<0.05		µg/L	0.05
	n-Butylbenzene	<0.050		µg/L	0.050		Tetrachloroethene	<0.050		µg/L	0.050
	sec-Butylbenzene	<0.050		µg/L	0.050		Toluene	<0.050		µg/L	0.050
	tert-Butylbenzene	<0.050		µg/L	0.050		1,2,3-Trichlorobenzene	<0.050		µg/L	0.050
	Carbon Disulfide	<0.50		µg/L	0.50		1,2,4-Trichlorobenzene	<0.050		µg/L	0.050
	Carbon Tetrachloride	<0.025		µg/L	0.025		1,1,1-Trichloroethane	<0.050		µg/L	0.050
	Chlorobenzene	<0.050		µg/L	0.050		1,1,2-Trichloroethane	<0.050		µg/L	0.050
	Chloroethane	<0.050		µg/L	0.050		Trichloroethene	<0.050		µg/L	0.050
	Chloroform	<0.050		µg/L	0.050		1,2,3-Trichloropropane	<0.020		µg/L	0.020
	Chloromethane	<0.050		µg/L	0.050		Trichlorofluoromethane	<0.050		µg/L	0.050
	2-Chlorotoluene	<0.050		µg/L	0.050		Trichlorotrifluoroethane	<0.050		µg/L	0.050
	4-Chlorotoluene	<0.050		µg/L	0.050		1,2,4-Trimethylbenzene	<0.050		µg/L	0.050
	Dibromochloromethane	<0.050		µg/L	0.050		1,3,5-Trimethylbenzene	<0.050		µg/L	0.050
	1,2-Dibromoethane (EDB)	<0.020		µg/L	0.020		Vinyl Chloride	<0.025		µg/L	0.025
	1,2-Dibromo-3-Chloropropane	<0.020		µg/L	0.020		m,p-Xylenes	<0.10		µg/L	0.10
	Dibromomethane	<0.050		µg/L	0.050		o-Xylene	<0.050		µg/L	0.050
	1,2-Dichlorobenzene	<0.050		µg/L	0.050		Isopropanol (IPA)	<0.50		µg/L	0.50
	1,3-Dichlorobenzene	<0.050		µg/L	0.050	74730	C4-C12	<5		µg/L	5
	1,4-Dichlorobenzene	<0.050		µg/L	0.050						
	Dichlorodifluoromethane	<0.050		µg/L	0.050						
	1,1-Dichloroethane	<0.050		µg/L	0.050						
	1,2-Dichloroethane	<0.050		µg/L	0.050						
	1,1-Dichloroethene	<0.050		µg/L	0.050						
	cis-1,2-Dichloroethene	<0.050		µg/L	0.050						
	trans-1,2-Dichloroethene	<0.050		µg/L	0.050						
	1,2-Dichloropropane	<0.050		µg/L	0.050						
	1,3-Dichloropropane	<0.050		µg/L	0.050						
	2,2-Dichloropropane	<0.050		µg/L	0.050						
	1,1-Dichloropropene	<0.050		µg/L	0.050						
	cis-1,3-Dichloropropene	<0.050		µg/L	0.050						
	trans-1,3-Dichloropropene	<0.050		µg/L	0.050						
	Diisopropyl Ether (DiPE)	<0.050		µg/L	0.050						
	Ethylbenzene	<0.050		µg/L	0.050						
	Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	0.050						
	Hexachlorobutadiene	<0.050		µg/L	0.050						
	2-Hexanone	<0.50		µg/L	0.50						



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Respectfully Submitted:

Ken Zheng

Ken Zheng - President

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CHAIN OF CUSTODY

A & R Work Order #:

1 807-4X

Page 1 of 1

[illegible]

Matrix Code:

DW=Drinking Water
GW=Ground Water
WW=Waste Water
SD=Solid Waste

SL=Sludge
SS=Soil/Sediment
AR=Air
PP=Pure Product

Preservative Code

$$\begin{array}{l} \text{IC=Ice} \\ \text{HC=HCl} \\ \text{HN=HNO}_3 \end{array}$$
$$\begin{aligned} \text{SH} &= \text{NaOH} \\ \text{ST} &= \text{Na}_2\text{S}_2\text{O}_3 \\ \text{HS} &= \text{H}_2\text{SO}_4 \end{aligned}$$

* Sample Container Types:

T=Tedlar Air Bag
G=Glass Container
ST= Steel Tube

B= Brass Tube
P= Plastic Bottle
V= VOA Vial

E= EnCore