Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/13/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 68

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/28/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 05/27/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 14

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 05/26/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/24/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/23/2021
Date Data Arrived at EDR: 03/25/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 84

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/14/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 33

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/13/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/17/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/02/2021
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/17/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 79

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/04/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 77

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Annually

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/26/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 02/23/2021
Date Data Arrived at EDR: 02/25/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 83

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 06/16/2020
Date Made Active in Reports: 08/28/2020
Number of Days to Update: 73

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/09/2021
Number of Days to Update: 79

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 82

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/16/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/07/2021
Number of Days to Update: 79

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

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

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

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

Date of Government Version: 02/16/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/05/2021
Date Data Arrived at EDR: 04/06/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/06/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

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

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 05/04/2021
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/12/2021
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/07/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 05/19/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55
Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120
Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29
Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3
Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/08/2021
Date Data Arrived at EDR: 04/09/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 11
Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

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

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

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

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 03/17/2021
Date Data Arrived at EDR: 03/18/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 7

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 03/17/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List

Cupa Facility List

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing

Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/24/2020
Number of Days to Update: 8

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 80

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 12/17/2020
Date Data Arrived at EDR: 01/28/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 78

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/14/2021
Date Data Arrived at EDR: 01/15/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 80

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 06/23/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 2

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/10/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 10/29/2020
Date Data Arrived at EDR: 10/30/2020
Date Made Active in Reports: 01/15/2021
Number of Days to Update: 77

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 01/28/2021
Number of Days to Update: 7

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/10/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 03/11/2021
Number of Days to Update: 27

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/11/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 72

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/11/2021
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/26/2021
Number of Days to Update: 73

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/13/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 04/16/2021
Date Made Active in Reports: 04/21/2021
Number of Days to Update: 5

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 10/19/2020
Date Data Arrived at EDR: 01/12/2021
Date Made Active in Reports: 03/26/2021
Number of Days to Update: 73

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/07/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 09/11/2020
Date Data Arrived at EDR: 10/07/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 77

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 03/24/2021
Date Data Arrived at EDR: 04/07/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 9

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 06/02/2021
Next Scheduled EDR Contact: 09/06/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/23/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 1

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/03/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/12/2021
Number of Days to Update: 9
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/02/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 77
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/26/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 6
Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64
Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 55
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 55

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/07/2021
Next Scheduled EDR Contact: 09/26/2021
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 03/30/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 03/31/2021
Next Scheduled EDR Contact: 07/12/2021
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/23/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 04/29/2021
Date Made Active in Reports: 05/03/2021
Number of Days to Update: 4

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 05/19/2021
Date Data Arrived at EDR: 05/19/2021
Date Made Active in Reports: 06/07/2021
Number of Days to Update: 19

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/21/2021
Number of Days to Update: 79

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/07/2021
Date Data Arrived at EDR: 05/11/2021
Date Made Active in Reports: 05/14/2021
Number of Days to Update: 3

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/06/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/02/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/24/2021
Date Data Arrived at EDR: 02/26/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 82

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/23/2021
Date Data Arrived at EDR: 03/25/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 77

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 09/12/2021
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 7

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/01/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/28/2020
Date Data Arrived at EDR: 01/29/2021
Date Made Active in Reports: 04/22/2021
Number of Days to Update: 83

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/29/2021
Date Data Arrived at EDR: 04/21/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 2

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 03/26/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/21/2021
Date Data Arrived at EDR: 04/22/2021
Date Made Active in Reports: 05/12/2021
Number of Days to Update: 20

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/24/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 10/05/2020
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 82

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 02/24/2021
Number of Days to Update: 13

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/13/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

5200 PATRICK HENRY DRIVE
5200 PATRICK HENRY DRIVE
SANTA CLARA, CA 95054

TARGET PROPERTY COORDINATES

Latitude (North):	37.406409 - 37° 24' 23.07''
Longitude (West):	121.985321 - 121° 59' 7.16''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	589802.8
UTM Y (Meters):	4140237.0
Elevation:	7 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640070 MILPITAS, CA
Version Date:	2012
Northwest Map:	5641106 MOUNTAIN VIEW, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

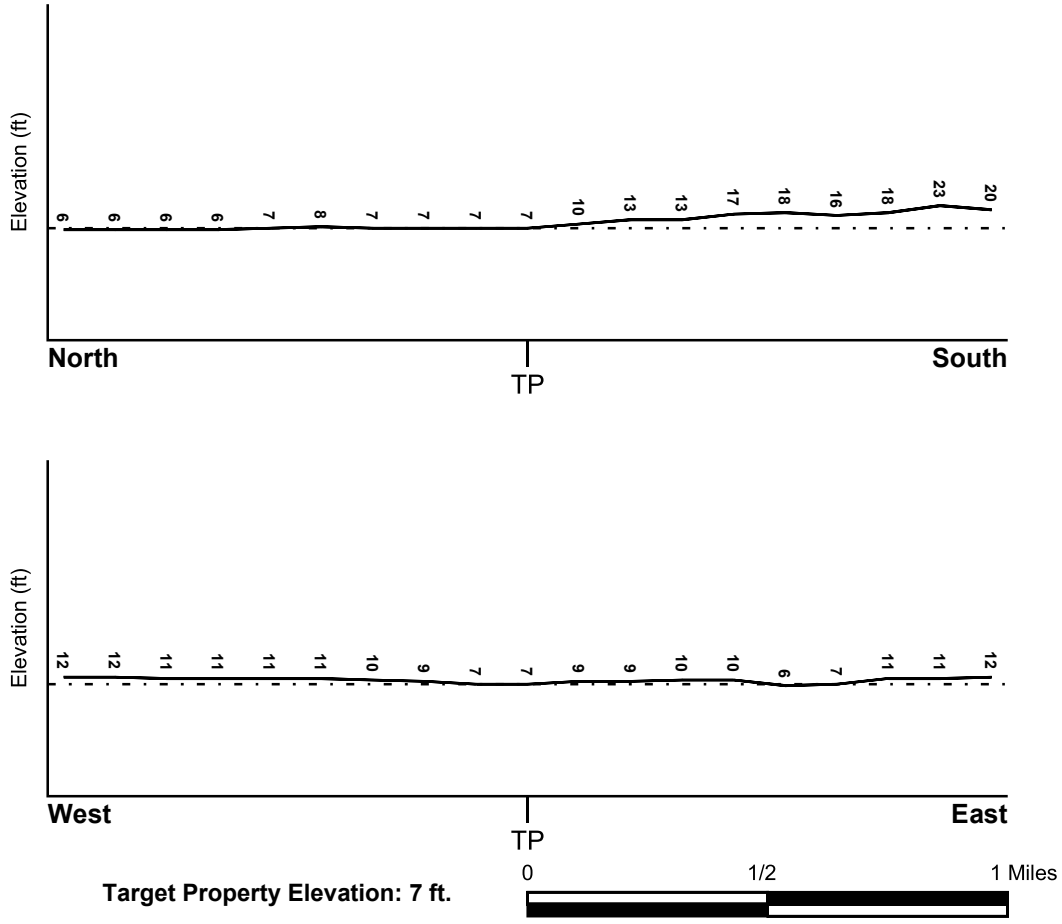
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General North

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 7 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06085C0061H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06085C0045H	FEMA FIRM Flood data
06085C0062J	FEMA FIRM Flood data
06085C0063H	FEMA FIRM Flood data
06085C0064H	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
MILPITAS	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Location Relative to TP:	1/8 - 1/4 Mile West
Site Name:	WESTERN MICROWAVE, INC.
Site EPA ID Number:	CAD009138900
Groundwater Flow Direction:	North
Measured Depth to Water:	8.5 feet.
Hydraulic Connection:	The upper aquifer consists of two water-bearing zones that are separated from the lower aquifer by a silt and clay layer located at depths of 100 to 250 feet. However, interconnections occur between the upper and lower aquifers.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information based on site-specific subsurface investigations is documented in the CERCLIS investigation report(s)

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	BOTELLA
Soil Surface Texture:	clay loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	MODERATE
Depth to Bedrock Min:	> 60 inches
Depth to Bedrock Max:	> 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	9 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.60 Min: 0.20	Max: 7.30 Min: 5.60
2	9 inches	41 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.60 Min: 0.20	Max: 7.80 Min: 5.60
3	41 inches	76 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 0.60 Min: 0.20	Max: 7.80 Min: 5.60

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: No Other Soil Types

Surficial Soil Types: No Other Soil Types

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: No Other Soil Types

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CADWR0000022061	0 - 1/8 Mile West
2	CADWR0000037795	1/8 - 1/4 Mile East
A3	CAEDF0000053605	1/8 - 1/4 Mile West
A4	CAEDF0000053650	1/8 - 1/4 Mile WNW
A5	CAEDF0000121891	1/8 - 1/4 Mile WNW
A6	CAEDF0000073077	1/8 - 1/4 Mile WNW
A7	CAEDF0000114327	1/8 - 1/4 Mile WNW
A8	CAEDF0000002558	1/8 - 1/4 Mile WNW
A9	CAEDF0000043628	1/8 - 1/4 Mile WNW
A10	CAEDF0000134876	1/8 - 1/4 Mile WNW
A11	CAEDF0000137595	1/8 - 1/4 Mile WNW
A12	CAEDF0000087494	1/8 - 1/4 Mile WNW
B13	CAEDF0000021570	1/8 - 1/4 Mile WNW
B14	CAEDF0000036429	1/8 - 1/4 Mile WNW
A15	CAEDF0000065628	1/8 - 1/4 Mile WNW
B16	CAEDF0000063966	1/8 - 1/4 Mile WNW
B17	CAEDF0000072878	1/8 - 1/4 Mile WNW
B18	CAEDF0000076808	1/8 - 1/4 Mile WNW
B19	CAEDF0000013031	1/8 - 1/4 Mile WNW
B20	CAEDF0000105951	1/4 - 1/2 Mile WNW
B21	CAEDF0000106847	1/4 - 1/2 Mile WNW
B22	CAEDF0000114232	1/4 - 1/2 Mile WNW
B23	CAEDF0000113873	1/4 - 1/2 Mile WNW
B24	CAEDF0000130614	1/4 - 1/2 Mile WNW
B25	CAEDF0000006993	1/4 - 1/2 Mile WNW
B26	CAEDF0000008422	1/4 - 1/2 Mile WNW
B27	CAEDF0000002524	1/4 - 1/2 Mile WNW
B28	CAEDF0000006576	1/4 - 1/2 Mile WNW
B29	CAEDF0000012271	1/4 - 1/2 Mile WNW
B30	CAEDF0000067277	1/4 - 1/2 Mile WNW
B31	CAEDF0000084656	1/4 - 1/2 Mile WNW
B32	CAEDF0000046347	1/4 - 1/2 Mile WNW
B33	CAEDF0000017550	1/4 - 1/2 Mile WNW
B34	CAEDF0000034687	1/4 - 1/2 Mile WNW
B35	CAEDF0000072931	1/4 - 1/2 Mile WNW
B36	CAEDF0000057112	1/4 - 1/2 Mile WNW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
B37	CAEDF0000053459	1/4 - 1/2 Mile WNW
B38	CAEDF0000111174	1/4 - 1/2 Mile WNW
39	CAEDF0000050059	1/4 - 1/2 Mile NW
40	CADWR0000013584	1/4 - 1/2 Mile SW
C41	CAEDF0000078902	1/4 - 1/2 Mile ENE
C42	CADWR0000018824	1/4 - 1/2 Mile ENE
C43	CAEDF0000074786	1/4 - 1/2 Mile NE
C44	CAEDF0000024016	1/4 - 1/2 Mile ENE
C45	CAEDF0000023444	1/4 - 1/2 Mile ENE
46	CADWR0000028090	1/4 - 1/2 Mile North
47	CADWR0000015022	1/2 - 1 Mile NNE
D48	CAEDF0000093005	1/2 - 1 Mile West
D49	CAEDF0000086188	1/2 - 1 Mile West
D50	CAEDF0000104389	1/2 - 1 Mile West
E51	CAEDF0000009210	1/2 - 1 Mile East
E52	CAEDF0000137982	1/2 - 1 Mile East
53	CADWR0000007891	1/2 - 1 Mile WNW
F54	CAEDF0000080434	1/2 - 1 Mile ENE
55	CADWR0000019801	1/2 - 1 Mile SE
F56	CAEDF0000008224	1/2 - 1 Mile ENE
F57	CAEDF0000073154	1/2 - 1 Mile ENE
G58	CAEDF0000009473	1/2 - 1 Mile ENE
F59	CADWR0000027897	1/2 - 1 Mile ENE
60	CAEDF0000019843	1/2 - 1 Mile NE
F61	CAEDF0000072985	1/2 - 1 Mile ENE
F62	CAEDF0000009150	1/2 - 1 Mile ENE
G63	CAPFAS000000821	1/2 - 1 Mile ENE
G64	CAEDF0000118026	1/2 - 1 Mile ENE
G65	CAEDF0000048015	1/2 - 1 Mile ENE
G66	CAEDF0000119014	1/2 - 1 Mile ENE
67	CAEDF0000078766	1/2 - 1 Mile ESE
H68	CAEDF0000130263	1/2 - 1 Mile ENE
H69	CAEDF0000081173	1/2 - 1 Mile ENE
H70	CAEDF0000064862	1/2 - 1 Mile ENE
H71	CAEDF0000075184	1/2 - 1 Mile ENE
H72	CAEDF0000009905	1/2 - 1 Mile ENE
H73	CAEDF0000076647	1/2 - 1 Mile ENE
H74	CAEDF0000124722	1/2 - 1 Mile ENE
H75	CAEDF0000020057	1/2 - 1 Mile ENE
H76	CAEDF0000080816	1/2 - 1 Mile ENE
H77	CAEDF0000014888	1/2 - 1 Mile ENE
78	CADWR0000010829	1/2 - 1 Mile NW
H79	CAEDF0000016276	1/2 - 1 Mile ENE
I80	CAEDF0000023636	1/2 - 1 Mile East
H81	CAEDF0000093466	1/2 - 1 Mile ENE
H82	CAPFAS000001373	1/2 - 1 Mile ENE
J83	CAEDF0000004338	1/2 - 1 Mile SW
J84	CAEDF0000106623	1/2 - 1 Mile SW
K85	CAEDF0000135677	1/2 - 1 Mile NNE
J86	CAEDF0000044756	1/2 - 1 Mile SW
H87	CAEDF0000063564	1/2 - 1 Mile ENE
88	CADWR0000024300	1/2 - 1 Mile NE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

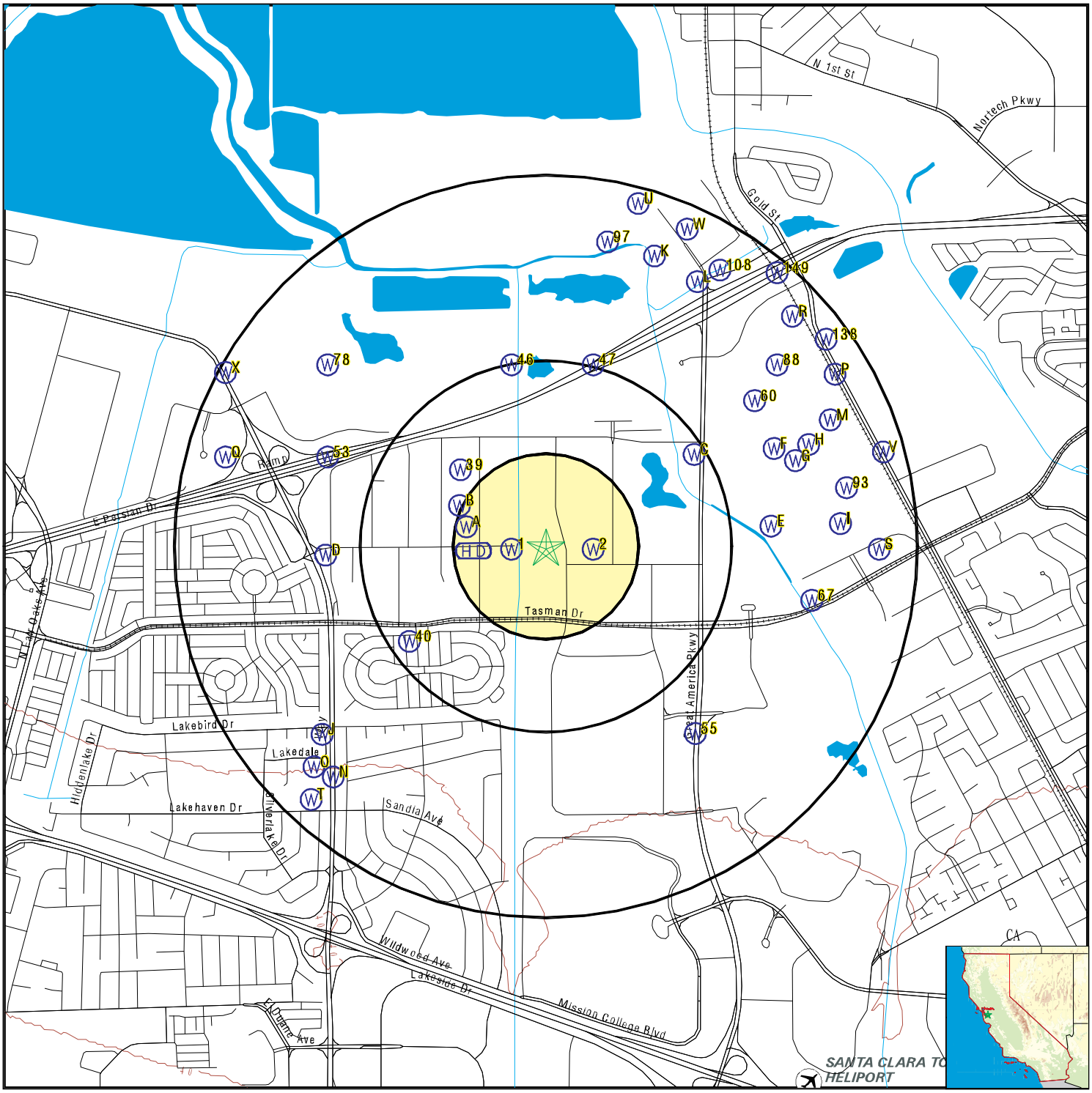
MAP ID	WELL ID	LOCATION FROM TP
L89	CAEDF0000074647	1/2 - 1 Mile NNE
I90	CAEDF0000141892	1/2 - 1 Mile East
M91	CAEDF0000020157	1/2 - 1 Mile ENE
N92	CAEDF0000022593	1/2 - 1 Mile SW
93	CAEDF0000082162	1/2 - 1 Mile East
N94	CAEDF0000110183	1/2 - 1 Mile SW
N95	CAEDF0000065473	1/2 - 1 Mile SW
L96	CAEDF0000118004	1/2 - 1 Mile NNE
97	CAEDF0000126328	1/2 - 1 Mile NNE
O98	CAEDF0000050444	1/2 - 1 Mile SW
M99	CAEDF0000017916	1/2 - 1 Mile ENE
M100	CAPFAS000000659	1/2 - 1 Mile ENE
O101	CAEDF0000087825	1/2 - 1 Mile SW
M102	CAEDF0000034593	1/2 - 1 Mile ENE
K103	CAEDF0000033830	1/2 - 1 Mile NNE
K104	CAEDF0000134688	1/2 - 1 Mile NNE
K105	CAPFAS000001424	1/2 - 1 Mile NNE
O106	CAEDF0000012093	1/2 - 1 Mile SW
O107	CAEDF0000142850	1/2 - 1 Mile SW
108	CAEDF0000082604	1/2 - 1 Mile NNE
O109	CAEDF0000094659	1/2 - 1 Mile SW
O110	CAEDF0000053395	1/2 - 1 Mile SW
P111	CAEDF0000069420	1/2 - 1 Mile ENE
P112	CAPFAS000000551	1/2 - 1 Mile ENE
Q113	CADWR0000018834	1/2 - 1 Mile WNW
Q114	CADWR0000017570	1/2 - 1 Mile WNW
R115	CAEDF0000083744	1/2 - 1 Mile NE
N116	CAEDF0000000833	1/2 - 1 Mile SW
S117	CADWR0000034341	1/2 - 1 Mile East
S118	CADWR0000026251	1/2 - 1 Mile East
T119	CAEDF0000143662	1/2 - 1 Mile SW
T120	CAEDF0000075341	1/2 - 1 Mile SW
T121	CAEDF0000126987	1/2 - 1 Mile SW
T122	CAEDF0000087920	1/2 - 1 Mile SW
T123	CAEDF0000110685	1/2 - 1 Mile SW
U124	CAEDF0000091040	1/2 - 1 Mile NNE
T125	CAEDF0000121394	1/2 - 1 Mile SW
R126	CAEDF0000018522	1/2 - 1 Mile NE
T127	CAEDF0000068520	1/2 - 1 Mile SW
T128	CAEDF0000083579	1/2 - 1 Mile SW
T129	CAEDF0000137873	1/2 - 1 Mile SW
T130	CAEDF0000116274	1/2 - 1 Mile SW
V131	CADWR0000015236	1/2 - 1 Mile ENE
T132	CAEDF0000083538	1/2 - 1 Mile SW
T133	CAEDF0000079208	1/2 - 1 Mile SW
P134	CAEDF0000099265	1/2 - 1 Mile ENE
T135	CAEDF0000127377	1/2 - 1 Mile SW
W136	CAEDF0000071284	1/2 - 1 Mile NNE
W137	CAPFAS000001020	1/2 - 1 Mile NNE
138	CAEDF0000120795	1/2 - 1 Mile NE
V139	CAEDF0000000981	1/2 - 1 Mile ENE
T140	CAEDF0000124182	1/2 - 1 Mile SW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
T141	CAEDF0000112202	1/2 - 1 Mile SW
T142	CAEDF0000137482	1/2 - 1 Mile SW
T143	CAEDF0000045826	1/2 - 1 Mile SW
T144	CAEDF0000114957	1/2 - 1 Mile SW
T145	CAEDF0000102103	1/2 - 1 Mile SW
T146	CAEDF0000036582	1/2 - 1 Mile SW
T147	CAEDF0000016800	1/2 - 1 Mile SW
V148	CAEDF0000082112	1/2 - 1 Mile ENE
149	CADWR0000025956	1/2 - 1 Mile NE
U150	CAEDF0000048519	1/2 - 1 Mile NNE
U151	CAPFAS000001144	1/2 - 1 Mile NNE
U152	CAEDF0000142895	1/2 - 1 Mile NNE
X153	CADWR9000035639	1/2 - 1 Mile WNW
X154	CADWR9000035640	1/2 - 1 Mile WNW

PHYSICAL SETTING SOURCE MAP - 6552598.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: 5200 Patrick Henry Drive	CLIENT: ATC Group Services LLC
ADDRESS: 5200 Patrick Henry Drive Santa Clara CA 95054	CONTACT: Noli Valera
LAT/LONG: 37.406409 / 121.985321	INQUIRY #: 6552598.2s DATE: June 25, 2021 8:58 am

Copyright © 2021 EDR, Inc. © 2015 TomTom Rel. 2015.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
West
0 - 1/8 Mile
Higher

CA WELLS **CADWR0000022061**

Well ID:	06S01W16N002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W16N002M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W16N002M&store_num=		
GeoTracker Data:	Not Reported		

2
East
1/8 - 1/4 Mile
Higher

CA WELLS **CADWR0000037795**

Well ID:	06S01W16P002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W16P002M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W16P002M&store_num=		
GeoTracker Data:	Not Reported		

A3
West
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000053605**

Well ID:	SL18285706-521-1	Well Type:	MONITORING
Source:	EDF	Other Name:	521-1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18285706&assigned_name=521-1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18285706&assigned_name=521-1		

A4
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000053650**

Well ID:	SL18285706-521-2	Well Type:	MONITORING
Source:	EDF	Other Name:	521-2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18285706&assigned_name=521-2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18285706&assigned_name=521-2		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A5
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000121891**

Well ID:	SL18285706-PZ-1	Well Type:	MONITORING
Source:	EDF	Other Name:	PZ-1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18285706&assigned_name=PZ-1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18285706&assigned_name=PZ-1		

A6
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000073077**

Well ID:	SL18285706-521-4	Well Type:	MONITORING
Source:	EDF	Other Name:	521-4
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18285706&assigned_name=521-4&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18285706&assigned_name=521-4		

A7
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000114327**

Well ID:	SL18285706-PZ-2	Well Type:	MONITORING
Source:	EDF	Other Name:	PZ-2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18285706&assigned_name=PZ-2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18285706&assigned_name=PZ-2		

A8
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000002558**

Well ID:	SL18285706-MW-1	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18285706&assigned_name=MW-1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18285706&assigned_name=MW-1		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A9
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000043628**

Well ID:	SL18285706-521-5	Well Type:	MONITORING
Source:	EDF	Other Name:	521-5
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18285706&assigned_name=521-5&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18285706&assigned_name=521-5		

A10
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000134876**

Well ID:	SL18285706-PZ-3	Well Type:	MONITORING
Source:	EDF	Other Name:	PZ-3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18285706&assigned_name=PZ-3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18285706&assigned_name=PZ-3		

A11
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000137595**

Well ID:	SL0608543983-P-1	Well Type:	MONITORING
Source:	EDF	Other Name:	P-1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL0608543983&assigned_name=P-1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL0608543983&assigned_name=P-1		

A12
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000087494**

Well ID:	SL18285706-PZ-4	Well Type:	MONITORING
Source:	EDF	Other Name:	PZ-4
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18285706&assigned_name=PZ-4&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18285706&assigned_name=PZ-4		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B13
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000021570**

Well ID:	SL0608543983-P-2	Well Type:	MONITORING
Source:	EDF	Other Name:	P-2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL0608543983&assigned_name=P-2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL0608543983&assigned_name=P-2		

B14
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000036429**

Well ID:	SL0608543983-E-1	Well Type:	MONITORING
Source:	EDF	Other Name:	E-1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL0608543983&assigned_name=E-1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL0608543983&assigned_name=E-1		

A15
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000065628**

Well ID:	SL18285706-521-3	Well Type:	MONITORING
Source:	EDF	Other Name:	521-3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18285706&assigned_name=521-3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18285706&assigned_name=521-3		

B16
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000063966**

Well ID:	SL0608543983-P-3	Well Type:	MONITORING
Source:	EDF	Other Name:	P-3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL0608543983&assigned_name=P-3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL0608543983&assigned_name=P-3		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B17
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000072878**

Well ID:	SL0608543983-B	Well Type:	MONITORING
Source:	EDF	Other Name:	B
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL0608543983&assigned_name=B&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL0608543983&assigned_name=B		

B18
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000076808**

Well ID:	SL0608543983-E-5	Well Type:	MONITORING
Source:	EDF	Other Name:	E-5
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL0608543983&assigned_name=E-5&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL0608543983&assigned_name=E-5		

B19
WNW
1/8 - 1/4 Mile
Higher

CA WELLS **CAEDF0000013031**

Well ID:	SL0608543983-E-2	Well Type:	MONITORING
Source:	EDF	Other Name:	E-2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL0608543983&assigned_name=E-2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL0608543983&assigned_name=E-2		

B20
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000105951**

Well ID:	SL18228626-9A	Well Type:	MONITORING
Source:	EDF	Other Name:	9A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=9A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=9A		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B21
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000106847**

Well ID:	SL0608543983-E-3	Well Type:	MONITORING
Source:	EDF	Other Name:	E-3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL0608543983&assigned_name=E-3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL0608543983&assigned_name=E-3		

B22
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000114232**

Well ID:	SL0608543983-E-6	Well Type:	MONITORING
Source:	EDF	Other Name:	E-6
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL0608543983&assigned_name=E-6&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL0608543983&assigned_name=E-6		

B23
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000113873**

Well ID:	SL18228626-25A	Well Type:	MONITORING
Source:	EDF	Other Name:	25A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=25A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=25A		

B24
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000130614**

Well ID:	SL18228626-6B	Well Type:	MONITORING
Source:	EDF	Other Name:	6B
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=6B&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=6B		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B25
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000006993**

Well ID:	SL18228626-27A	Well Type:	MONITORING
Source:	EDF	Other Name:	27A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=27A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=27A		

B26
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000008422**

Well ID:	SL18228626-P41A	Well Type:	MONITORING
Source:	EDF	Other Name:	P41A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=P41A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=P41A		

B27
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000002524**

Well ID:	SL18228626-20A	Well Type:	MONITORING
Source:	EDF	Other Name:	20A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=20A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=20A		

B28
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000006576**

Well ID:	SL18228626-P24A	Well Type:	MONITORING
Source:	EDF	Other Name:	P24A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=P24A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=P24A		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B29
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000012271**

Well ID:	SL18228626-22A	Well Type:	MONITORING
Source:	EDF	Other Name:	22A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=22A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=22A		

B30
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000067277**

Well ID:	SL18228626-21A	Well Type:	MONITORING
Source:	EDF	Other Name:	21A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=21A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=21A		

B31
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000084656**

Well ID:	SL18228626-P45A	Well Type:	MONITORING
Source:	EDF	Other Name:	P45A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=P45A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=P45A		

B32
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000046347**

Well ID:	SL18228626-P23A	Well Type:	MONITORING
Source:	EDF	Other Name:	P23A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=P23A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=P23A		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B33
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000017550**

Well ID:	SL18228626-19A	Well Type:	MONITORING
Source:	EDF	Other Name:	19A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=19A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=19A		

B34
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000034687**

Well ID:	SL18228626-26A	Well Type:	MONITORING
Source:	EDF	Other Name:	26A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=26A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=26A		

B35
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000072931**

Well ID:	SL0608543983-P-5	Well Type:	MONITORING
Source:	EDF	Other Name:	P-5
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL0608543983&assigned_name=P-5&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL0608543983&assigned_name=P-5		

B36
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000057112**

Well ID:	SL18228626-1A	Well Type:	MONITORING
Source:	EDF	Other Name:	1A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=1A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=1A		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B37
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000053459**

Well ID:	SL18228626-10A	Well Type:	MONITORING
Source:	EDF	Other Name:	10A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=10A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=10A		

B38
WNW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000111174**

Well ID:	SL18228626-3A	Well Type:	MONITORING
Source:	EDF	Other Name:	3A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=3A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=3A		

39
NW
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000050059**

Well ID:	SL18228626-11A	Well Type:	MONITORING
Source:	EDF	Other Name:	11A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=SL18228626&assigned_name=11A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=SL18228626&assigned_name=11A		

40
SW
1/4 - 1/2 Mile
Higher

CA WELLS **CADWR0000013584**

Well ID:	06S01W20A001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W20A001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W20A001M&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C41
ENE
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000078902**

Well ID:	T0608550103-MW-3	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608550103&assigned_name=MW-3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608550103&assigned_name=MW-3		

C42
ENE
1/4 - 1/2 Mile
Higher

CA WELLS **CADWR0000018824**

Well ID:	06S01W16K001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W16K001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W16K001M&store_num=		
GeoTracker Data:	Not Reported		

C43
NE
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000074786**

Well ID:	T0608550103-MW-1	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608550103&assigned_name=MW-1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608550103&assigned_name=MW-1		

C44
ENE
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000024016**

Well ID:	T0608550103-MW-4	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-4
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608550103&assigned_name=MW-4&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608550103&assigned_name=MW-4		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C45
ENE
1/4 - 1/2 Mile
Higher

CA WELLS **CAEDF0000023444**

Well ID:	T0608550103-MW-2	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608550103&assigned_name=MW-2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608550103&assigned_name=MW-2		

46
North
1/4 - 1/2 Mile
Lower

CA WELLS **CADWR0000028090**

Well ID:	06S01W16E001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W16E001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W16E001M&store_num=		
GeoTracker Data:	Not Reported		

47
NNE
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000015022**

Well ID:	06S01W16F001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W16F001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W16F001M&store_num=		
GeoTracker Data:	Not Reported		

D48
West
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000093005**

Well ID:	T0608500338-EA-2	Well Type:	MONITORING
Source:	EDF	Other Name:	EA-2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500338&assigned_name=EA-2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500338&assigned_name=EA-2		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

D49
West
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000086188**

Well ID:	T0608500338-EA-3	Well Type:	MONITORING
Source:	EDF	Other Name:	EA-3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500338&assigned_name=EA-3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500338&assigned_name=EA-3		

D50
West
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000104389**

Well ID:	T0608500338-MW-A	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500338&assigned_name=MW-A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500338&assigned_name=MW-A		

E51
East
1/2 - 1 Mile
Lower

CA WELLS **CAEDF0000009210**

Well ID:	L10006514573-G-14	Well Type:	MONITORING
Source:	EDF	Other Name:	G-14
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-14&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-14		

E52
East
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000137982**

Well ID:	L10006514573-L-7	Well Type:	MONITORING
Source:	EDF	Other Name:	L-7
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=L-7&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=L-7		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

53
WNW
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000007891**

Well ID:	06S01W17K001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W17K001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W17K001M&store_num=		
GeoTracker Data:	Not Reported		

F54
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000080434**

Well ID:	L10006514573-G-13	Well Type:	MONITORING
Source:	EDF	Other Name:	G-13
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-13&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-13		

55
SE
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000019801**

Well ID:	06S01W21G001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W21G001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W21G001M&store_num=		
GeoTracker Data:	Not Reported		

F56
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000008224**

Well ID:	L10006514573-MW-7B	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-7B
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-7B&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-7B		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

F57
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000073154**

Well ID:	L10006514573-L-12	Well Type:	MONITORING
Source:	EDF	Other Name:	L-12
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=L-12&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=L-12		

G58
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000009473**

Well ID:	L10006514573-L-10	Well Type:	MONITORING
Source:	EDF	Other Name:	L-10
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=L-10&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=L-10		

F59
ENE
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000027897**

Well ID:	06S01W16J002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W16J002M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W16J002M&store_num=		
GeoTracker Data:	Not Reported		

60
NE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000019843**

Well ID:	L10006514573-MW-6B	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-6B
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-6B&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-6B		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

F61
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000072985**

Well ID:	L10006514573-MW-12A	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-12A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-12A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-12A		

F62
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000009150**

Well ID:	L10006514573-MW-4B	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-4B
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-4B&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-4B		

G63
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAPFAS000000821**

Well ID:	L10006514573-L-21	Well Type:	MONITORING
Source:	EDF	Other Name:	L-21
GAMA PFAS Testing:	Yes		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=L-21&store_num=		
GeoTracker Data:	Not Reported		

G64
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000118026**

Well ID:	L10006514573-L-21	Well Type:	MONITORING
Source:	EDF	Other Name:	L-21
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=L-21&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=L-21		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

G65
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000048015**

Well ID:	L10006514573-MW-1A	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-1A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-1A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-1A		

G66
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000119014**

Well ID:	L10006514573-MW-1B	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-1B
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-1B&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-1B		

67
ESE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000078766**

Well ID:	L10006514573-G-15	Well Type:	MONITORING
Source:	EDF	Other Name:	G-15
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-15&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-15		

H68
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000130263**

Well ID:	L10006514573-MW-4A	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-4A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-4A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-4A		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

H69
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000081173**

Well ID:	L10006514573-MW-5B	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-5B
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-5B&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-5B		

H70
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000064862**

Well ID:	L10006514573-L-20	Well Type:	MONITORING
Source:	EDF	Other Name:	L-20
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=L-20&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=L-20		

H71
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000075184**

Well ID:	L10006514573-MW-3B	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-3B
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-3B&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-3B		

H72
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000009905**

Well ID:	L10006514573-G-19	Well Type:	MONITORING
Source:	EDF	Other Name:	G-19
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-19&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-19		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

H73
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000076647**

Well ID:	L10006514573-L-11	Well Type:	MONITORING
Source:	EDF	Other Name:	L-11
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=L-11&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=L-11		

H74
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000124722**

Well ID:	L10006514573-MW-3A	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-3A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-3A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-3A		

H75
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000020057**

Well ID:	L10006514573-MW-2A	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-2A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-2A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-2A		

H76
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000080816**

Well ID:	L10006514573-MW-2B	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-2B
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-2B&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-2B		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

H77
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000014888**

Well ID:	L10006514573-H-5	Well Type:	MONITORING
Source:	EDF	Other Name:	H-5
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=H-5&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=H-5		

78
NW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000010829**

Well ID:	06S01W17G001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W17G001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W17G001M&store_num=		
GeoTracker Data:	Not Reported		

H79
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000016276**

Well ID:	L10006514573-MW-5A	Well Type:	MONITORING
Source:	EDF	Other Name:	MW-5A
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=MW-5A&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=MW-5A		

I80
East
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000023636**

Well ID:	L10006514573-L-8	Well Type:	MONITORING
Source:	EDF	Other Name:	L-8
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=L-8&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=L-8		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

H81
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000093466**

Well ID:	L10006514573-G-10	Well Type:	MONITORING
Source:	EDF	Other Name:	G-10
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-10&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-10		

H82
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAPFAS000001373**

Well ID:	L10006514573-G-10	Well Type:	MONITORING
Source:	EDF	Other Name:	G-10
GAMA PFAS Testing:	Yes		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-10&store_num=		
GeoTracker Data:	Not Reported		

J83
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000004338**

Well ID:	T0608500561-MW13	Well Type:	MONITORING
Source:	EDF	Other Name:	MW13
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW13&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW13		

J84
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000106623**

Well ID:	T0608500561-MW12	Well Type:	MONITORING
Source:	EDF	Other Name:	MW12
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW12&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW12		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

K85
NNE
1/2 - 1 Mile
Lower

CA WELLS **CAEDF0000135677**

Well ID:	L10005750092-G-7R	Well Type:	MONITORING
Source:	EDF	Other Name:	G-7R
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=G-7R&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10005750092&assigned_name=G-7R		

J86
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000044756**

Well ID:	T0608501245-S-17	Well Type:	MONITORING
Source:	EDF	Other Name:	S-17
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=S-17&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=S-17		

H87
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000063564**

Well ID:	L10006514573-L-22	Well Type:	MONITORING
Source:	EDF	Other Name:	L-22
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=L-22&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=L-22		

88
NE
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000024300**

Well ID:	06S01W16H001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W16H001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W16H001M&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

L89
NNE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000074647**

Well ID:	L10005750092-G-6R	Well Type:	MONITORING
Source:	EDF	Other Name:	G-6R
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=G-6R&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10005750092&assigned_name=G-6R		

I90
East
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000141892**

Well ID:	L10006514573-L-23	Well Type:	MONITORING
Source:	EDF	Other Name:	L-23
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=L-23&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=L-23		

M91
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000020157**

Well ID:	L10006514573-G-18	Well Type:	MONITORING
Source:	EDF	Other Name:	G-18
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-18&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-18		

N92
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000022593**

Well ID:	T0608501245-S-20	Well Type:	MONITORING
Source:	EDF	Other Name:	S-20
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=S-20&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=S-20		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

93
East
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000082162**

Well ID:	L10006514573-L-9	Well Type:	MONITORING
Source:	EDF	Other Name:	L-9
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=L-9&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=L-9		

N94
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000110183**

Well ID:	T0608501245-S-14	Well Type:	MONITORING
Source:	EDF	Other Name:	S-14
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=S-14&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=S-14		

N95
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000065473**

Well ID:	T0608501245-S-11	Well Type:	MONITORING
Source:	EDF	Other Name:	S-11
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=S-11&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=S-11		

L96
NNE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000118004**

Well ID:	L10005750092-LR-2R	Well Type:	MONITORING
Source:	EDF	Other Name:	LR-2R
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=LR-2R&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10005750092&assigned_name=LR-2R		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

97
NNE
1/2 - 1 Mile
Lower

CA WELLS **CAEDF0000126328**

Well ID:	L10005750092-G-9R	Well Type:	MONITORING
Source:	EDF	Other Name:	G-9R
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=G-9R&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10005750092&assigned_name=G-9R		

O98
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000050444**

Well ID:	T0608500561-EW5	Well Type:	MONITORING
Source:	EDF	Other Name:	EW5
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=EW5&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=EW5		

M99
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000017916**

Well ID:	L10006514573-H-6	Well Type:	MONITORING
Source:	EDF	Other Name:	H-6
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=H-6&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=H-6		

M100
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAPFAS000000659**

Well ID:	L10006514573-H-6	Well Type:	MONITORING
Source:	EDF	Other Name:	H-6
GAMA PFAS Testing:	Yes		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=H-6&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

O101
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000087825**

Well ID:	T0608500561-EW4	Well Type:	MONITORING
Source:	EDF	Other Name:	EW4
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=EW4&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=EW4		

M102
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000034593**

Well ID:	L10006514573-G-12	Well Type:	MONITORING
Source:	EDF	Other Name:	G-12
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-12&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-12		

K103
NNE
1/2 - 1 Mile
Lower

CA WELLS **CAEDF0000033830**

Well ID:	L10005750092-G-13	Well Type:	MONITORING
Source:	EDF	Other Name:	G-13
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=G-13&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10005750092&assigned_name=G-13		

K104
NNE
1/2 - 1 Mile
Lower

CA WELLS **CAEDF0000134688**

Well ID:	L10005750092-G-14	Well Type:	MONITORING
Source:	EDF	Other Name:	G-14
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=G-14&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10005750092&assigned_name=G-14		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

K105
NNE
1/2 - 1 Mile
Lower

CA WELLS **CAPFAS000001424**

Well ID:	L10005750092-G-13	Well Type:	MONITORING
Source:	EDF	Other Name:	G-13
GAMA PFAS Testing:	Yes		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=G-13&store_num=		
GeoTracker Data:	Not Reported		

O106
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000012093**

Well ID:	T0608501245-S-15	Well Type:	MONITORING
Source:	EDF	Other Name:	S-15
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=S-15&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=S-15		

O107
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000142850**

Well ID:	T0608501245-S-10	Well Type:	MONITORING
Source:	EDF	Other Name:	S-10
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=S-10&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=S-10		

108
NNE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000082604**

Well ID:	L10005750092-G-12	Well Type:	MONITORING
Source:	EDF	Other Name:	G-12
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=G-12&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10005750092&assigned_name=G-12		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

O109
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000094659**

Well ID:	T0608500561-MW10	Well Type:	MONITORING
Source:	EDF	Other Name:	MW10
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW10&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW10		

O110
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000053395**

Well ID:	T0608501245-S-19	Well Type:	MONITORING
Source:	EDF	Other Name:	S-19
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=S-19&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=S-19		

P111
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000069420**

Well ID:	L10006514573-G-11	Well Type:	MONITORING
Source:	EDF	Other Name:	G-11
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-11&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-11		

P112
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAPFAS000000551**

Well ID:	L10006514573-G-11	Well Type:	MONITORING
Source:	EDF	Other Name:	G-11
GAMA PFAS Testing:	Yes		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-11&store_num=		
GeoTracker Data:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

Q113
WNW
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000018834**

Well ID:	06S01W17L003M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W17L003M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W17L003M&store_num=		
GeoTracker Data:	Not Reported		

Q114
WNW
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000017570**

Well ID:	06S01W17L001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W17L001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W17L001M&store_num=		
GeoTracker Data:	Not Reported		

R115
NE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000083744**

Well ID:	L10006514573-G-08	Well Type:	MONITORING
Source:	EDF	Other Name:	G-08
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-08&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-08		

N116
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000000833**

Well ID:	T0608501245-EW-2	Well Type:	MONITORING
Source:	EDF	Other Name:	EW-2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=EW-2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=EW-2		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

S117
East
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000034341**

Well ID:	06S01W15N001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W15N001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W15N001M&store_num=		
GeoTracker Data:	Not Reported		

S118
East
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000026251**

Well ID:	06S01W15N003M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W15N003M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W15N003M&store_num=		
GeoTracker Data:	Not Reported		

T119
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000143662**

Well ID:	T0608501245-S-16	Well Type:	MONITORING
Source:	EDF	Other Name:	S-16
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=S-16&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=S-16		

T120
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000075341**

Well ID:	T0608501245-S-8	Well Type:	MONITORING
Source:	EDF	Other Name:	S-8
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=S-8&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=S-8		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

T121
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000126987**

Well ID:	T0608501245-RW-1	Well Type:	MONITORING
Source:	EDF	Other Name:	RW-1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=RW-1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=RW-1		

T122
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000087920**

Well ID:	T0608501245-OP-4	Well Type:	MONITORING
Source:	EDF	Other Name:	OP-4
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=OP-4&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=OP-4		

T123
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000110685**

Well ID:	T0608501245-EW-1	Well Type:	MONITORING
Source:	EDF	Other Name:	EW-1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=EW-1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=EW-1		

U124
NNE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000091040**

Well ID:	L10005750092-LR-3R	Well Type:	MONITORING
Source:	EDF	Other Name:	LR-3R
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=LR-3R&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10005750092&assigned_name=LR-3R		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

T125
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000121394**

Well ID:	T0608500561-MW6	Well Type:	MONITORING
Source:	EDF	Other Name:	MW6
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW6&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW6		

R126
NE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000018522**

Well ID:	L10006514573-G-07	Well Type:	MONITORING
Source:	EDF	Other Name:	G-07
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-07&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-07		

T127
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000068520**

Well ID:	T0608501245-S-18	Well Type:	MONITORING
Source:	EDF	Other Name:	S-18
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=S-18&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=S-18		

T128
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000083579**

Well ID:	T0608500561-MW9	Well Type:	MONITORING
Source:	EDF	Other Name:	MW9
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW9&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW9		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

T129
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000137873**

Well ID:	T0608501245-S-21	Well Type:	MONITORING
Source:	EDF	Other Name:	S-21
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608501245&assigned_name=S-21&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608501245&assigned_name=S-21		

T130
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000116274**

Well ID:	T0608500561-MW11	Well Type:	MONITORING
Source:	EDF	Other Name:	MW11
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW11&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW11		

V131
ENE
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000015236**

Well ID:	06S01W15M001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W15M001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W15M001M&store_num=		
GeoTracker Data:	Not Reported		

T132
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000083538**

Well ID:	T0608500561-MW5	Well Type:	MONITORING
Source:	EDF	Other Name:	MW5
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW5&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW5		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

T133
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000079208**

Well ID:	T0608500561-EW3	Well Type:	MONITORING
Source:	EDF	Other Name:	EW3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=EW3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=EW3		

P134
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000099265**

Well ID:	L10006514573-G-17	Well Type:	MONITORING
Source:	EDF	Other Name:	G-17
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-17&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-17		

T135
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000127377**

Well ID:	T0608500561-MW8	Well Type:	MONITORING
Source:	EDF	Other Name:	MW8
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW8&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW8		

W136
NNE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000071284**

Well ID:	L10005750092-LR-5R	Well Type:	MONITORING
Source:	EDF	Other Name:	LR-5R
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=LR-5R&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10005750092&assigned_name=LR-5R		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

W137
NNE
1/2 - 1 Mile
Higher

CA WELLS **CAPFAS000001020**

Well ID:	L10005750092-LR-5R	Well Type:	MONITORING
Source:	EDF	Other Name:	LR-5R
GAMA PFAS Testing:	Yes		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=LR-5R&store_num=		
GeoTracker Data:	Not Reported		

138
NE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000120795**

Well ID:	L10006514573-G-06	Well Type:	MONITORING
Source:	EDF	Other Name:	G-06
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-06&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-06		

V139
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000000981**

Well ID:	L10006514573-G-01	Well Type:	MONITORING
Source:	EDF	Other Name:	G-01
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-01&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-01		

T140
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000124182**

Well ID:	T0608500561-MW3	Well Type:	MONITORING
Source:	EDF	Other Name:	MW3
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW3&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW3		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

T141
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000112202**

Well ID:	T0608500561-MW1	Well Type:	MONITORING
Source:	EDF	Other Name:	MW1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW1		

T142
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000137482**

Well ID:	T0608500561-MW7	Well Type:	MONITORING
Source:	EDF	Other Name:	MW7
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW7&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW7		

T143
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000045826**

Well ID:	T0608500561-EW1	Well Type:	MONITORING
Source:	EDF	Other Name:	EW1
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=EW1&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=EW1		

T144
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000114957**

Well ID:	T0608500561-MW4	Well Type:	MONITORING
Source:	EDF	Other Name:	MW4
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW4&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW4		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

T145
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000102103**

Well ID:	T0608500561-PZ6	Well Type:	MONITORING
Source:	EDF	Other Name:	PZ6
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=PZ6&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=PZ6		

T146
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000036582**

Well ID:	T0608500561-EW2	Well Type:	MONITORING
Source:	EDF	Other Name:	EW2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=EW2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=EW2		

T147
SW
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000016800**

Well ID:	T0608500561-MW2	Well Type:	MONITORING
Source:	EDF	Other Name:	MW2
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=T0608500561&assigned_name=MW2&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=T0608500561&assigned_name=MW2		

V148
ENE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000082112**

Well ID:	L10006514573-G-16R	Well Type:	MONITORING
Source:	EDF	Other Name:	G-16R
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10006514573&assigned_name=G-16R&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10006514573&assigned_name=G-16R		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

149
NE
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000025956**

Well ID:	06S01W16A001M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	06S01W16A001M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=06S01W16A001M&store_num=		
GeoTracker Data:	Not Reported		

U150
NNE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000048519**

Well ID:	L10005750092-G-15	Well Type:	MONITORING
Source:	EDF	Other Name:	G-15
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=G-15&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10005750092&assigned_name=G-15		

U151
NNE
1/2 - 1 Mile
Higher

CA WELLS **CAPFAS000001144**

Well ID:	L10005750092-G-15	Well Type:	MONITORING
Source:	EDF	Other Name:	G-15
GAMA PFAS Testing:	Yes		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=G-15&store_num=		
GeoTracker Data:	Not Reported		

U152
NNE
1/2 - 1 Mile
Higher

CA WELLS **CAEDF0000142895**

Well ID:	L10005750092-G-11R	Well Type:	MONITORING
Source:	EDF	Other Name:	G-11R
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=EDF&samp_date=&global_id=L10005750092&assigned_name=G-11R&store_num=		
GeoTracker Data:	https://geotracker.waterboards.ca.gov/profile_report.asp?cmd=MWEDFResults&global_id=L10005750092&assigned_name=G-11R		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

X153
WNW
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000035639**

State Well #:	06S01W17F001M	Station ID:	52338
Well Name:	06S01W17F001	Basin Name:	Santa Clara
Well Use:	Observation		
Well Type:	Part of a nested/multi-completion well		
Well Depth:	110	Well Completion Rpt #:	NA

X154
WNW
1/2 - 1 Mile
Lower

CA WELLS **CADWR9000035640**

State Well #:	06S01W17F002M	Station ID:	52339
Well Name:	06S01W17F002	Basin Name:	Santa Clara
Well Use:	Observation		
Well Type:	Part of a nested/multi-completion well		
Well Depth:	210	Well Completion Rpt #:	NA

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
95054	9	0

Federal EPA Radon Zone for SANTA CLARA County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 95054

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.700 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

APPENDIX F

AERIAL PHOTOGRAPHS

5200 Patrick Henry Drive

5200 Patrick Henry Drive

Santa Clara, CA 95054

Inquiry Number: 6552598.11

June 24, 2021

The EDR Aerial Photo Decade Package

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

EDR Aerial Photo Decade Package

06/24/21

Site Name:

5200 Patrick Henry Drive
5200 Patrick Henry Drive
Santa Clara, CA 95054
EDR Inquiry # 6552598.11

Client Name:

ATC Group Services LLC
2001 Crow Canyon Road, Suite 210
San Ramon, CA 94583
Contact: Noli Valera

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1998	1"=500'	Flight Date: September 06, 1998	USDA
1993	1"=500'	Acquisition Date: June 16, 1993	USGS/DOQQ
1982	1"=500'	Flight Date: July 05, 1982	USDA
1979	1"=500'	Flight Date: August 16, 1979	USDA
1974	1"=500'	Flight Date: June 06, 1974	USGS
1968	1"=500'	Flight Date: June 14, 1968	USGS
1963	1"=500'	Flight Date: June 23, 1963	EDR Proprietary Aerial Viewpoint
1956	1"=500'	Flight Date: June 09, 1956	USDA
1950	1"=500'	Flight Date: April 01, 1950	USDA
1948	1"=500'	Flight Date: September 26, 1948	USDA
1939	1"=500'	Flight Date: July 31, 1939	USDA

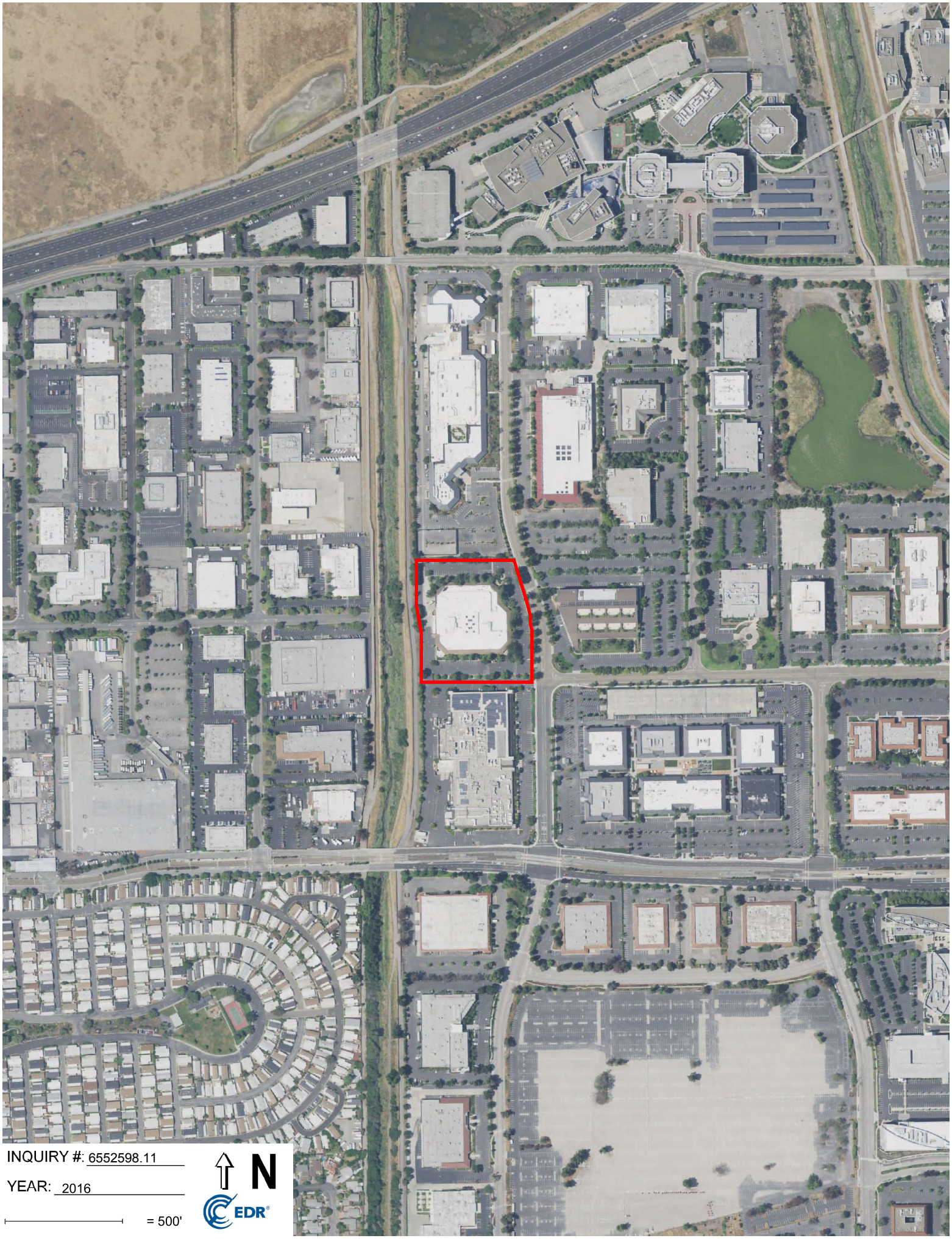
When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2021 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.


INQUIRY #: 6552598.11
YEAR: 2016
= 500'
N
EDR

INQUIRY #: 6552598.11
YEAR: 2012
= 500'
N
EDR

INQUIRY #: 6552598.11
YEAR: 2009
= 500'
N
EDR

INQUIRY #: 6552598.11
YEAR: 2006
= 500'
N
EDR

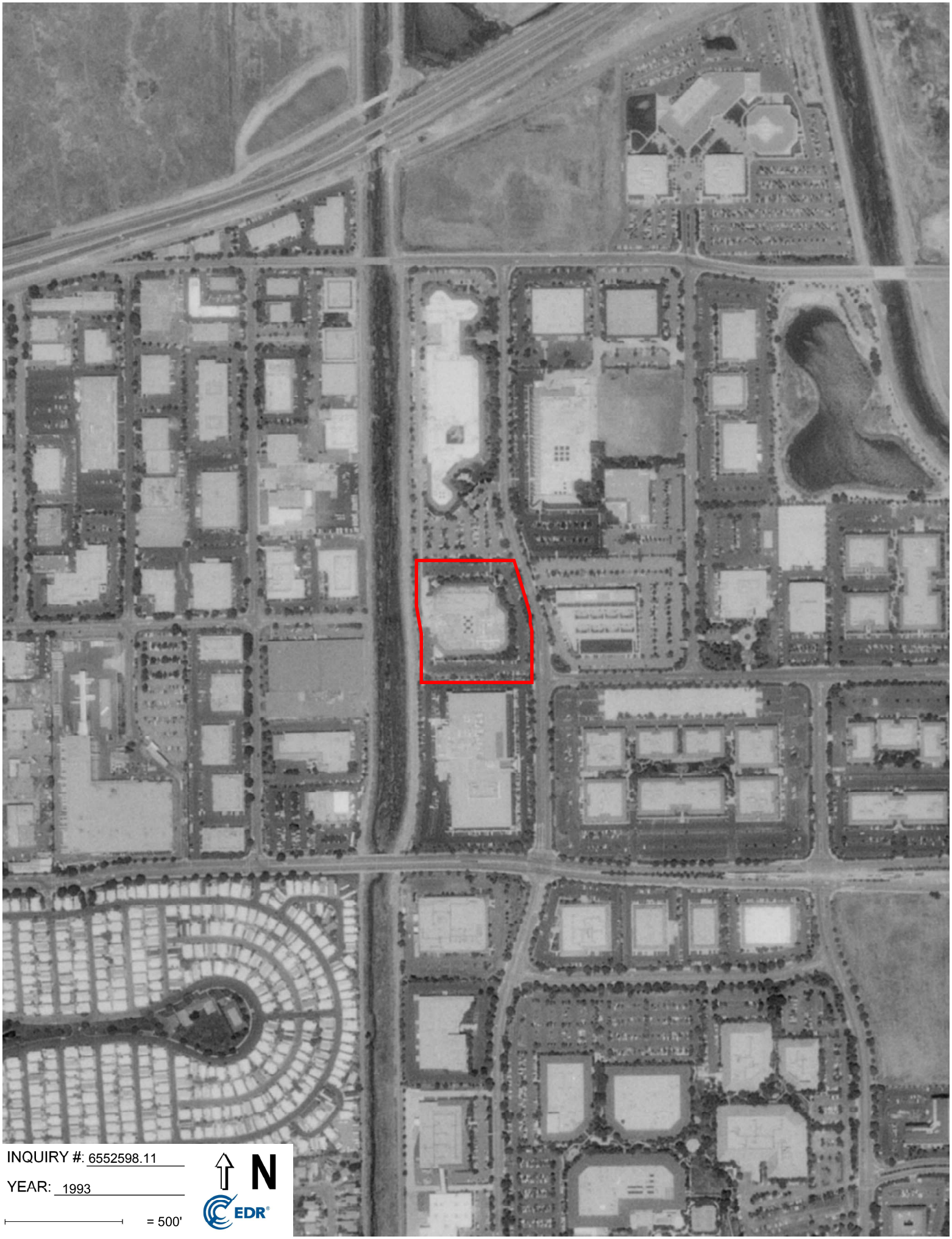
INQUIRY #: 6552598.11

YEAR: 1998

= 500'

N

EDR


INQUIRY #: 6552598.11
YEAR: 1993
= 500'
N
EDR

INQUIRY #: 6552598.11
YEAR: 1982
= 500'
N
EDR

INQUIRY #: 6552598.11

YEAR: 1979

= 500'

N

EDR

INQUIRY #: 6552598.11
YEAR: 1974
= 500'
N
EDR

INQUIRY #: 6552598.11
YEAR: 1968
= 500'
N
EDR

INQUIRY #: 6552598.11

YEAR: 1963

= 500'

N

EDR

INQUIRY #: 6552598.11

YEAR: 1956

= 500'

N

EDR

INQUIRY #: 6552598.11

YEAR: 1950

= 500'

N

EDR

INQUIRY #: 6552598.11

YEAR: 1948

= 500'

N

EDR

INQUIRY #: 6552598.11

YEAR: 1939

= 500'

N

EDR

APPENDIX G

HISTORICAL RESEARCH DOCUMENTATION

5200 Patrick Henry Drive
5200 Patrick Henry Drive
Santa Clara, CA 95054

Inquiry Number: 6552598.5
June 29, 2021

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

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

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2020 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc. or its affiliates is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1922 through 2017. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer. Reproduction of City Directories without permission of the publisher or licensed vendor may be a violation of copyright.

Data by infoUSA®

Copyright©2008
All Rights Reserved

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2017	Cole Information Services	X	X	X	-
2014	Cole Information Services	X	X	X	-
2009	Cole Information Services	X	X	X	-
2006	Haines Company, Inc.	-	-	-	-
2004	Cole Information Services	X	X	X	-
2001	Haines Company, Inc.	-	X	X	-
	Haines Company, Inc.	X	X	X	-
2000	Haines Company	-	-	-	-
1999	Cole Information Services	X	X	X	-
1996	Pacific Bell	-	X	X	-
	Pacific Bell	X	X	X	-
1994	Cole Information Services	X	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1991	PACIFIC BELL WHITE PAGES	-	X	X	-
	PACIFIC BELL WHITE PAGES	X	X	X	-
1986	Pacific Bell	-	-	-	-
1985	Pacific Bell	-	X	X	-
1982	Pacific Telephone	-	-	-	-
1980	Pacific Telephone	-	-	-	-
1978	R. L. Polk & Co.	-	-	-	-
1975	R. L. Polk Co.	-	-	-	-
1974	R. L. Polk Co.	-	-	-	-
1970	R. L. Polk Co.	-	-	-	-
1968	R. L. Polk Co.	-	-	-	-
1966	R. L. POLK	-	-	-	-
1965	R. L. Polk Co.	-	-	-	-
1964	R. L. Polk Co.	-	-	-	-
1963	Pacific Telephone	-	-	-	-
1962	R. L. Polk & Co.	-	-	-	-
1960	R. L. Polk Co.	-	-	-	-
1957	R. L. Polk Co.	-	-	-	-
1955	R.L. Polk and Co Publishers	-	-	-	-
1950	R. L. Polk Co.	-	-	-	-
1946	R. L. Polk Co.	-	-	-	-
1945	R. L. Polk Co.	-	-	-	-
1942	R.L. Polk	-	-	-	-
1940	R. L. Polk Co.	-	-	-	-
1936	R. L. Polk Co.	-	-	-	-
1935	R. L. Polk Co.	-	-	-	-
1931	R. L. Polk Co.	-	-	-	-
1930	R. L. Polk Co. of California	-	-	-	-
1926	R. L. Polk Co.	-	-	-	-
1925	R. L. Polk Co.	-	-	-	-
1922	R. L. Polk Co.	-	-	-	-

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

Address	*Type*	*Findings*
1100 Elko Drive	Client Entered	
1200 Reamwood Avenue	Client Entered	X
3000 Bunker Hill Lane	Client Entered	
5000 Patrick Henry Drive	Client Entered	
3005 Tasman Drive	Client Entered	

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

5200 Patrick Henry Drive
Santa Clara, CA 95054

FINDINGS DETAIL

Target Property research detail.

PATRICK HENRY DR

5200 PATRICK HENRY DR

Year	*Uses*	*Source*
2017	COHERENT	Cole Information Services
	COHERENT INC	Cole Information Services
2014	COHERENT	Cole Information Services
	COHERENT INC	Cole Information Services
2009	FUJITSU COMPUTER SYSTEMS CORP	Cole Information Services
	FUJITSU PC	Cole Information Services
2004	FIJITSU PC CORP	Cole Information Services
	TOYOTA MOTOR CORP	Cole Information Services
2001	FUJITSU	Haines Company, Inc.
1999	FUJITSU NETWORK TRANSMISSION SERVICE	Cole Information Services
1996	FUJITSU NETWORK TRANSMISSION SVC	Pacific Bell
1994	FUJITSU PERSONAL SYSTEMS INC	Cole Information Services
	FUJITSU SYSTEMS BUSINESS	Cole Information Services
1991	Milipitas Location	PACIFIC BELL WHITE PAGES
	XIDE X CORPORATION HE ADQUARTE RS AN AN ACOMP COMPANZ COMPANY OPERATOR ASSI	PACIFIC BELL WHITE PAGES
	XIDEX CORPORATION HEADQUARTERS AN ANACOMP COMPANY Company Operator Assisted M F 8 5	PACIFIC BELL WHITE PAGES

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

BUNKER HILL LN

3052 BUNKER HILL LN

Year	Uses	Source
2017	BENVENUE MEDICAL INC	Cole Information Services
2014	BENVENUE MEDICAL INC	Cole Information Services
2009	HITACHI INNOVATIVE SOLUTIONS	Cole Information Services
	M2000 INC	Cole Information Services
	BENVENUE MEDICAL INC	Cole Information Services
2004	MURALI SPEERAMAGIR	Cole Information Services
2001	STEELES	Haines Company, Inc.
	STEELER	Haines Company, Inc.
	PARAFORMIC 408 B	Haines Company, Inc.
	E APPLIANCECORP	Haines Company, Inc.
	E APPLIANCECORP	Haines Company, Inc.

PATRICK HENRY DR

5201 PATRICK HENRY DR

Year	Uses	Source
2017	CLARIS CORP	Cole Information Services
	FILEMAKER INC	Cole Information Services
	CLARIS CORP	Cole Information Services
2014	FILEMAKER INC	Cole Information Services
	CLARIS CORP	Cole Information Services
2009	CLARIS CORP	Cole Information Services
	FILEMAKER INC	Cole Information Services
2001	CUSTOMR CLARISCORPTCHNCL	Haines Company, Inc.
	GALILEO	Haines Company, Inc.
	CLARISCORP	Haines Company, Inc.
1999	FILEMAKER INCORPORATED 5201 PATRICK HENRY DR	Cole Information Services
	FILEMAKER INCORPORATED	Cole Information Services
	CLARIS CORPORATION CUSTOMER SERVICE	Cole Information Services
1994	CLARIS CORP	Cole Information Services

FINDINGS

Year	Uses	Source
1991	XIDEX CORPORATION HEADQUARTERS AN ANACOMP COMPANY Company Operator Assisted M F 8 5	PACIFIC BELL WHITE PAGES
	XIDE X CORPORATION HE ADQUARTE RS AN AN ACOMP COMPANZ COMPANY OPERATOR ASSI	PACIFIC BELL WHITE PAGES
	Claris Corp	PACIFIC BELL WHITE PAGES
	XIDEX CORPORATION HEADQUARTERS AN ANACOMP COMPANY Company Operator Assisted M F 8 5	PACIFIC BELL WHITE PAGES
	Milipitas Location	PACIFIC BELL WHITE PAGES
	CLARIS CORP	PACIFIC BELL WHITE PAGES
	XIDE X CORPORATION HE ADQUARTE RS AN AN ACOMP COMPANZ COMPANY OPERATOR ASSI	PACIFIC BELL WHITE PAGES

5301 PATRICK HENRY DR

Year	Uses	Source
2017	AVEO INC	Cole Information Services
	RELYPSA INC	Cole Information Services
2014	RELYPSA INC	Cole Information Services
2009	ILYPSA INC	Cole Information Services
	AVEO INC	Cole Information Services
	RELYPSA INC	Cole Information Services
2004	AVEO INC	Cole Information Services
	GALILED LAB	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
1996	RPR GENCELL	Pacific Bell
1994	APPLIED IMMUNE SCIENCES	Cole Information Services
1991	XIDE X CORPORATION HE ADQUARTE RS AN AN ACOMP COMPANZ COMPANY OPERATOR ASSI	PACIFIC BELL WHITE PAGES
	Milipitas Location	PACIFIC BELL WHITE PAGES
	XIDEX CORPORATION HEADQUARTERS AN ANACOMP COMPANY Company Operator Assisted M F 8 5	PACIFIC BELL WHITE PAGES

5378 PATRICK HENRY DR

Year	Uses	Source
1985	MACK CARL D	Pacific Bell

FINDINGS

Reamwood Avenue

1200 Reamwood Avenue

Year	*Uses*	*Source*
2001	XXXX	Haines Company, Inc.

FINDINGS

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
1100 Elko Drive	2017, 2014, 2009, 2006, 2004, 2001, 2000, 1999, 1996, 1994, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1200 Reamwood Avenue	2017, 2014, 2009, 2006, 2004, 2000, 1999, 1996, 1994, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
3000 Bunker Hill Lane	2017, 2014, 2009, 2006, 2004, 2001, 2000, 1999, 1996, 1994, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
3005 Tasman Drive	2017, 2014, 2009, 2006, 2004, 2001, 2000, 1999, 1996, 1994, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
3052 BUNKER HILL LN	2017, 2014, 2009, 2006, 2004, 2000, 1999, 1996, 1994, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
3052 BUNKER HILL LN	2006, 2001, 2000, 1999, 1996, 1994, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
5000 Patrick Henry Drive	2017, 2014, 2009, 2006, 2004, 2001, 2000, 1999, 1996, 1994, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
5201 PATRICK HENRY DR	2017, 2014, 2009, 2006, 2004, 2000, 1999, 1996, 1994, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
5201 PATRICK HENRY DR	2006, 2004, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
5301 PATRICK HENRY DR	2006, 2001, 2000, 1999, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
5301 PATRICK HENRY DR	2017, 2014, 2009, 2006, 2004, 2001, 2000, 1999, 1994, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
5378 PATRICK HENRY DR	2017, 2014, 2009, 2006, 2004, 2001, 2000, 1999, 1996, 1994, 1991, 1986, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
5200 Patrick Henry Drive	2006, 2000, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922

5200 Patrick Henry Drive
5200 Patrick Henry Drive
Santa Clara, CA 95054

Inquiry Number: 6552598.6
June 24, 2021

The EDR Property Tax Map Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

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

Disclaimer - Copyright and Trademark Notice

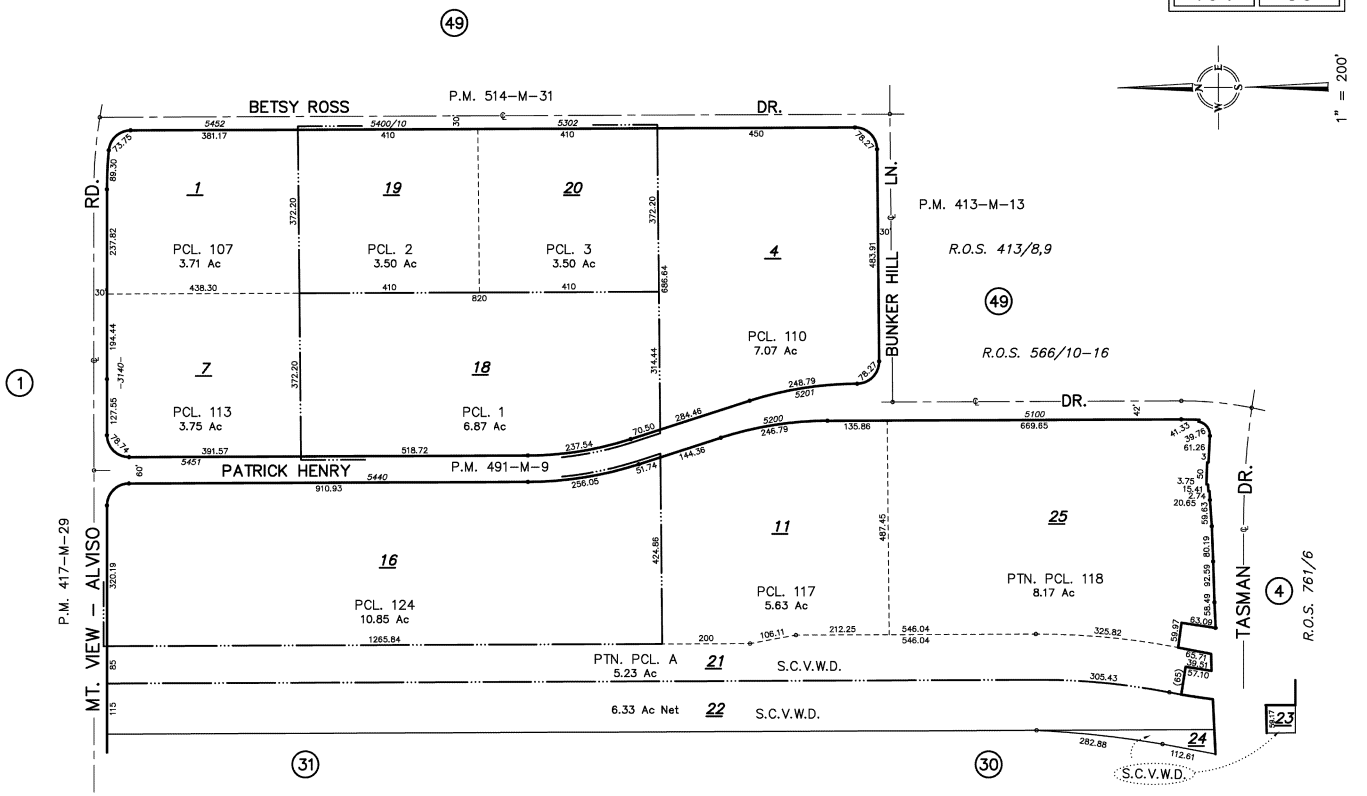
This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2017 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc. or its affiliates is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

OFFICE OF COUNTY ASSESSOR — SANTA CLARA COUNTY, CALIFORNIA

BOOK	PAGE
104	50



TRA DET. MAP 92

LAWRENCE E. STONE — ASSESSOR
Cadastral map for assessment purposes only.
Compiled under R. & T. Code, Sec. 327.
Effective Roll Year 2020-2021

5200 PATRICK HENRY DRIVE
5200 PATRICK HENRY DRIVE
SANTA CLARA, CA 95054

Inquiry Number: 6552598.7S
JUNE 25, 2021

EDR Environmental Lien and AUL Search

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

EDR Environmental Lien and AUL Search

The EDR Environmental Lien Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

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

Disclaimer - Copyright and Trademark Notice

This report was prepared for the use of Environmental Data Resources, Inc., and AFX Research, LLC. (AFX) exclusively. This report is neither a guarantee of title, a commitment to insure, or a policy of title insurance. **NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WTH THIS REPORT**. Environmental Data Resources, Inc. (EDR) and AFX exclusively specifically disclaim the making of any such warranties, including without limitation, merchantability or fitness for a particular use or purpose. The information contained in this report is retrieved as it is recorded from the various agencies that make it available. The total liability is limited to the fee paid for this report.

Copyright 2021 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

5200 PATRICK HENRY DRIVE
5200 PATRICK HENRY DRIVE
SANTA CLARA, CA 95054

RESEARCH SOURCE

Source 1: SANTA CLARA COUNTY RECORDER'S OFFICE

Source 2: CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

Source 3: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

PROPERTY INFORMATION

Deed 1

Type of Deed:	GRANT DEED
Title is vested in:	SDCO 5200 PATRICK HENRY DRIVE, INC., A DELAWARE CORPORATION
Title received from:	5200 PH INVESTORS, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY
Date Executed:	07/24/2014
Date Recorded:	07/29/2014
Book:	NA
Page:	NA
Volume:	NA
Instrument#:	22663851
Docket:	NA
Land Record Comments:	NA
Miscellaneous Comments:	NA

Legal Description: LOT 117

Current Owner: SDCO 5200 PATRICK HENRY DRIVE, INC., A DELAWARE CORPORATION

Property Identifiers: 104-50-011

Comments: NA

EDR Environmental Lien and AUL Search

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

Comments: NONE IDENTIFIED.

OTHER ACTIVITY AND USE LIMITATIONS (AULS)

Other AUL's: Found ☐ Not Found ☒

Comments: NONE IDENTIFIED.

EDR Environmental Lien and AUL Search

MISCELLANEOUS

Comments: NONE IDENTIFIED.

EDR Environmental Lien and AUL Search

DEED EXHIBIT

DOCUMENT: 22663851

Pages: 4

Fees .. 24 00
Taxes .. ** Conf **
Copies ..
AMT PAID 24.00

REGINA ALCOMENDRAS
SANTA CLARA COUNTY RECORDER
Recorded at the request of
Document Processing Solutions

RDE # 025
7/29/2014
8:00 AM

RECORDING REQUESTED BY AND
WHEN RECORDED, RETURN TO:

SDCO 5200 PATRICK HENRY DRIVE, INC.
c/o Deutsche Asset & Wealth Management
222 South Riverside Plaza, 26th Floor
Chicago, IL 60606-5808

MAIL TAX STATEMENTS TO:

SDCO 5200 Patrick Henry Drive, Inc.
c/o Ryan LLC
7500 N. Dobson Road, #300
Scottsdale, AZ 85261
Attn: Karen Doyle

The undersigned Grantor(s) declare(s) that Documentary Transfer Tax shall be shown on a separate Declaration or Statement of Tax Due and not of public record pursuant to Revenue & Taxation Code 11932-11933.

Signature of Declarant
Carol Herrera as agent.

FILOR REQUESTS
DO NOT RECORD STAMP VALUE

GRANT DEED

FOR VALUE RECEIVED, **5200 PH INVESTORS, LLC**, a California limited liability company, ("**Grantor**") grants to **SDCO 5200 PATRICK HENRY DRIVE, INC.**, a Delaware corporation, all that certain real property, located in the City of Santa Clara, County of Santa Clara, State of California, more particularly described in Exhibit A, attached hereto and incorporated herein by reference thereto. This conveyance is made and accepted subject to the list of permitted exceptions set forth on Exhibit B attached hereto and made a part hereof, without re-imposing the same.

IN WITNESS WHEREOF, Grantor has executed this Grant Deed as of this 24th day of July, 2014.

GRANTOR:

5200 PH INVESTORS, LLC,
a California limited liability company

By: Matteson Investment Partners, LLC,
a California limited liability company
Its Manager

By:
Name: James A Blake
Title: Manager

MAIL TAX STATEMENTS TO: AS REFERENCED ABOVE

STATE OF CALIFORNIA)
) ss.
COUNTY OF San Mateo)

On 7/24/14 before me, Paula A. Rossi, Notary Public, personally appeared James A. Beake, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she~~/~~they~~ executed the same in his/~~her~~/~~their~~ authorized capacity(~~ies~~), and that by his/~~her~~/~~their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing is true and correct.

WITNESS my hand and official seal.

SIGNATURE OF NOTARY

PAULA A. ROSSI
Commission # 1969086
Notary Public - California
San Mateo County
My Comm. Expires Feb 9, 2016

[SEAL]

Exhibit A to
Grant Deed
Real Property Legal Description

Real property in the City of Santa Clara, County of Santa Clara, State of California, described as follows:

ALL OF PARCEL 117, AS SHOWN ON THAT PARCEL MAP FILED FOR RECORD IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SANTA CLARA, STATE OF CALIFORNIA ON FEBRUARY 17, 1978 IN BOOK 413 OF MAPS, PAGE(S) 13, 14 AND 15.

APN: 104-50-011

[END OF LEGAL DESCRIPTION]

Exhibit B to
Grant Deed
Permitted Exceptions

1. General and special taxes and assessments not yet due or payable.

2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

3. The fact that the land lies within the boundaries of the Bayshore North Redevelopment Project Area, as disclosed by the document recorded December 31, 1973 as Book 0780, Page 585 of Santa Clara County California Official Records.

4. An easement for installing, maintaining, repairing and replacing underground electrical systems and incidental purposes, recorded February 24, 1978 as Book D486, Page 440 of Santa Clara County California Official Records.

5. The terms and provisions contained in the document entitled "Agreement" recorded November 29, 1978 as Book E126, Page 176 of Santa Clara County California Official Records.

6. The following matters disclosed by an ALTA/ACSM survey made by Kier & Wright Civil Engineers & Surveyors, Inc. on June 25, 2014, designated Job No. A07150-4:

   a. The fact that the driveways extend across Northerly and Southerly boundaries of the Land.

7. Rights of Coherent, Inc. ("**Tenant**"), as tenant only, pursuant to that certain Lease dated September 14, 2007, as amended by First Amendment to Lease dated February 4, 2008 and Second Amendment to Lease dated July 23, 2010, together with rights of Tenant's licensee pursuant to that certain Santa Clara Stadium Off-Site Parking License Agreement dated January 27, 2014, and Consent to License in connection therewith dated January 28, 2014 .

[END OF PERMITTED EXCEPTIONS]

5200 Patrick Henry Drive
5200 Patrick Henry Drive
Santa Clara, CA 95054

Inquiry Number: 6552598.8
June 24, 2021

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

About This Report

Executive Summary

Findings

Glossary

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

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2020 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc. or its affiliates is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILDFAX® PROPERTY HISTORY

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

A search of building department records was conducted by Environmental Data Resources, Inc (EDR) on behalf of ATC Group Services LLC on Jun 24, 2021.

TARGET PROPERTY

5200 Patrick Henry Drive
Santa Clara, CA 95054

SEARCH METHODS

EDR searches available lists for both the Target Property and Surrounding Properties.

RESEARCH SUMMARY

Building permits identified: **YES**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Santa Clara

Year	*Source*	*TP*	*Adjoining*
2021	City of Santa Clara, Building Inspection Division		X
	City of Santa Clara, Building Inspection Division	X	
2020	City of Santa Clara, Building Inspection Division		X
	City of Santa Clara, Building Inspection Division	X	
2019	City of Santa Clara, Building Inspection Division		X
2018	City of Santa Clara, Building Inspection Division		X
2017	City of Santa Clara, Building Inspection Division		X
2016	City of Santa Clara, Building Inspection Division		X
2015	City of Santa Clara, Building Inspection Division		X
2014	City of Santa Clara, Building Inspection Division		X
2013	City of Santa Clara, Building Inspection Division		X
2012	City of Santa Clara, Building Inspection Division		X
	City of Santa Clara, Building Inspection Division	X	
2011	City of Santa Clara, Building Inspection Division		X
2010	City of Santa Clara, Building Inspection Division	X	
2009	City of Santa Clara, Building Inspection Division		
2008	City of Santa Clara, Building Inspection Division		X
	City of Santa Clara, Building Inspection Division	X	
2007	City of Santa Clara, Building Inspection Division		X
	City of Santa Clara, Building Inspection Division	X	
2006	City of Santa Clara, Building Inspection Division		X
2005	City of Santa Clara, Building Inspection Division		X
2004	City of Santa Clara, Building Inspection Division		
2003	City of Santa Clara, Building Inspection Division		X
2002	City of Santa Clara, Building Inspection Division		X
2001	City of Santa Clara, Building Inspection Division		X
2000	City of Santa Clara, Building Inspection Division		X
1999	City of Santa Clara, Building Inspection Division		

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

Year	Source	TP	Adjoining
1998	City of Santa Clara, Building Inspection Division		
1997	City of Santa Clara, Building Inspection Division		
1996	City of Santa Clara, Building Inspection Division		
1995	City of Santa Clara, Building Inspection Division		
1994	City of Santa Clara, Building Inspection Division		
1993	City of Santa Clara, Building Inspection Division		
1992	City of Santa Clara, Building Inspection Division		
1991	City of Santa Clara, Building Inspection Division		
1990	City of Santa Clara, Building Inspection Division		
1989	City of Santa Clara, Building Inspection Division		
1988	City of Santa Clara, Building Inspection Division		
1987	City of Santa Clara, Building Inspection Division		
1986	City of Santa Clara, Building Inspection Division		
1985	City of Santa Clara, Building Inspection Division		
1984	City of Santa Clara, Building Inspection Division		
1983	City of Santa Clara, Building Inspection Division		
1982	City of Santa Clara, Building Inspection Division		
1981	City of Santa Clara, Building Inspection Division		
1980	City of Santa Clara, Building Inspection Division		
1979	City of Santa Clara, Building Inspection Division		
1978	City of Santa Clara, Building Inspection Division		
1977	City of Santa Clara, Building Inspection Division		
1976	City of Santa Clara, Building Inspection Division		
1975	City of Santa Clara, Building Inspection Division		
1974	City of Santa Clara, Building Inspection Division		
1973	City of Santa Clara, Building Inspection Division		
1972	City of Santa Clara, Building Inspection Division		
1971	City of Santa Clara, Building Inspection Division		
1970	City of Santa Clara, Building Inspection Division		
1969	City of Santa Clara, Building Inspection Division		
1968	City of Santa Clara, Building Inspection Division		
1967	City of Santa Clara, Building Inspection Division		
1966	City of Santa Clara, Building Inspection Division		
1965	City of Santa Clara, Building Inspection Division		
1964	City of Santa Clara, Building Inspection Division		
1963	City of Santa Clara, Building Inspection Division		
1962	City of Santa Clara, Building Inspection Division		
1961	City of Santa Clara, Building Inspection Division		
1960	City of Santa Clara, Building Inspection Division		
1959	City of Santa Clara, Building Inspection Division		
1958	City of Santa Clara, Building Inspection Division		
1957	City of Santa Clara, Building Inspection Division		
1956	City of Santa Clara, Building Inspection Division		

Name: JurisdictionName
Years: Years
Source: Source
Phone: Phone

BUILDING DEPARTMENT RECORDS SEARCHED

Name: Santa Clara
Years: 1956-2021
Source: City of Santa Clara, Building Inspection Division, SANTA CLARA, CA
Phone: (408) 615-2200

Name: Santa Clara County Unincorporated Area
Years: 1960-2021
Source: Santa Clara County, Development Services Office, SAN JOSE, CA
Phone: (408) 299-5700

TARGET PROPERTY FINDINGS

TARGET PROPERTY DETAIL

5200 Patrick Henry Drive
Santa Clara, CA 95054

5200 PATRICK HENRY DR

Date:	**4/8/2021**
Permit Type:	**BLD**
Description:	**Market ready improvements to an existing building. New front entry storefront, doors and tower element. New landscaping and hardsacpe.**
Permit Description:	**BUILDING PERMIT**
Work Class:	COMM/TI
Proposed Use:	
Permit Number:	BLD2021-61077
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**4/8/2021**
Permit Type:	**FIR**
Description:	**INSTALLING A NEW BACKFLOW FOR EXISTING BUILDING**
Permit Description:	**FIRE PERMIT**
Work Class:	INTERIOR DEMO
Proposed Use:	
Permit Number:	FIR2021-00360
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

TARGET PROPERTY FINDINGS

Date:	**3/23/2021**
Permit Type:	**FIR**
Description:	**DEMO/MODIFICATION TO EXISTING FIRE ALARM SYSTEM. REMOVE (4) DOOR HOLDERS & (4) SMOKE DETECTORS. NO NEW EQUIPMENT.**
Permit Description:	**FIRE PERMIT**
Work Class:	INTERIOR DEMO
Proposed Use:	
Permit Number:	FIR2021-00275
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**3/8/2021**
Permit Type:	**FIR**
Description:	**DEMO 500 FIRE SPRINKLERS FOR MARKET READY, MODIFYING SSU SPACING IF NEEDED TO 130 SQFT.**
Permit Description:	**FIRE PERMIT**
Work Class:	INTERIOR DEMO
Proposed Use:	
Permit Number:	FIR2021-00231
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**1/14/2021**
Permit Type:	**BLD**
Description:	**Demolition of interior walls, doors, ceiling, lights and finishes.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2021-60349
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

TARGET PROPERTY FINDINGS

Date:	**9/30/2020**
Permit Type:	**BLD**
Description:	**repair 7 glullam beams structural calcs and sheets**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2020-59391
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**4/12/2012**
Permit Type:	**FIR**
Description:	**Add (3) sprinkler heads for new conference room layouts**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2012-00277
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**4/12/2012**
Permit Type:	**PRJ**
Description:	**Interior alterations for (N) conf rms. (B-2 occ per 1980 CO)**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2012-07304
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

TARGET PROPERTY FINDINGS

Date:	**3/2/2012**
Permit Type:	**BLD**
Description:	**Interior alterations for (N) conf rms. (B-2 occ per 1980 CO).**
	//MF=10
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2012-28006
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	URI

Date:	**12/17/2010**
Permit Type:	**BLD**
Description:	**Repair (E) Glue-Laminated Beams // MF=1**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2010-24373
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	5200 PATRICK HENRY ASSCS LLC

Date:	**7/14/2010**
Permit Type:	**FIR**
Description:	**Install 6 (N) and relocate 8 (E) sprinklers for T.I.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2010-00391
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

TARGET PROPERTY FINDINGS

Date:	**6/10/2010**
Permit Type:	**BLD**
Description:	**Install Tools With Two (N) Roof-top Fans // MF=9**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2010-22586
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	TICO CONSTRUCTION INC

Date:	**6/10/2010**
Permit Type:	**PRJ**
Description:	**Interior Alterations to include (N) wall & door for future lab. (B-2 occ per 1980 CO)**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2010-05957
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**5/21/2010**
Permit Type:	**BLD**
Description:	**Interior Alterations to include (N) wall & door for future lab. (B-2 occ per 1980 CO)**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2010-22441
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	TICO CONSTRUCTION

TARGET PROPERTY FINDINGS

Date:	**1/30/2008**
Permit Type:	**FIR**
Description:	**Fire sprinkler monitoring system - 24 devices**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2008-00087
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**1/11/2008**
Permit Type:	**FIR**
Description:	**Add ceiling pendant throughout existing building. For new wall and ceiling layout for new tenant. Existing shell system has upright protection and is to remain. 567 heads total.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2008-00033
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

TARGET PROPERTY FINDINGS

Date:	**11/19/2007**
Permit Type:	**BLD**
Description:	**Interior Alterations To Include Complete Build-Out of Entire Floor to Include (N) Offices, Conference Rooms, & Restrooms / Exterior Modifications To Include ADA Modifications, (N) Pathway Between Buildings (N) Exterior Storefront Doors For (N) Tenant "COHERENT" - OLD CODE // MF=40**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2007-15392
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SOUTH BAY CONSTRUCTION

Date:	**11/8/2007**
Permit Type:	**BLD**
Description:	**Underground Plumbing Only for Future Bathroom Remodels MF=5**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2007-15316
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SOUTH BAY CONSTRUCTION

TARGET PROPERTY FINDINGS

Date:	**11/8/2007**
Permit Type:	**PRJ**
Description:	**Interior Non-Structural Demo**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2007-03905
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**9/21/2007**
Permit Type:	**BLD**
Description:	**Interior Non-Structural Demo MF=1**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2007-14634
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SOUTH BAY DEVELOPMENT

ADJOINING PROPERTY FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

BUNKER HILL LN

3058 BUNKER HILL LN

Date:	**8/30/2016**
Permit Type:	**FIR**
Description:	**Monitoring of a OS&Y for a new backflow device and a PIV valve (2 devices)**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2016-01075
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

3062 BUNKER HILL LN

Date:	**4/28/2021**
Permit Type:	**FIR**
Description:	**COMM T/I- EXTEROR: REMOVAL OF EXISTING WINDOWS, INTERIOR: REMOVAL OF EXISTING FINISHES AND LIGHTS, NEW CONSTRUCTION- NEW STOREFRONT DOOR, ROLL UP DOOR AND CONCRETE WALKWAY. INTERIOR: NEW NON-LOAD BEARING WALLS, DOORS, SIDELITES, CEILING, LIGHTS, FINISHES, AND LAB AREAS.**
Permit Description:	**FIRE PERMIT**
Work Class:	MEDTRONIC
Proposed Use:	
Permit Number:	FIR2021-00418
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**4/23/2021**
Permit Type:	**BLD**
Description:	**COMM T/I- EXTEROR: REMOVAL OF EXISTING WINDOWS, INTERIOR: REMOVAL OF EXISTING FINISHES AND LIGHTS, NEW CONSTRUCTION- NEW STOREFRONT DOOR, ROLL UP DOOR AND CONCRETE WALKWAY. INTERIOR: NEW NON-LOAD BEARING WALLS, DOORS, SIDELITES, CEILING, LIGHTS, FINISHES, AND LAB AREAS.**
Permit Description:	**BUILDING PERMIT**
Work Class:	MEDTRONIC
Proposed Use:	
Permit Number:	BLD2021-61250
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**8/14/2020**
Permit Type:	**FIR**
Description:	**To ad or relocate upright and pendent fire sprinklers to accommodate new tenant improvement changes (90 heads)**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2020-00761
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**8/10/2020**
Permit Type:	**FIR**
Description:	**Upgrade of fire alarm system. Full notification and duct detectors and elevator recall equipment to be installed (53 devices)**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2020-00714
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**4/20/2020**
Permit Type:	**FIR**
Description:	**Owner improvements to make building market ready. Demo and rebuild existing bathrooms. Demo portion of non-bearing walls. Build new interior non-bearing walls, furring, finishes, casework, ceiling, and lighting.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2020-00360
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**4/2/2020**
Permit Type:	**BLD**
Description:	**COMM T/I- New exterior facade finish on existing building.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2020-57964
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**3/30/2020**
Permit Type:	**BLD**
Description:	**This is an interior market ready project in an existing building includes demolition of portion of non-bearing walls and restrooms. New construction of interior non-bearing walls, finishes, casework, ceiling, lights and restrooms.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2020-57938
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**5/16/2017**
Permit Type:	**FIR**
Description:	**Upgrade backflows for existing campus: (2) 8" Wilkins 475DA RPDA backflow preventers to existing fire service that serves campus. This includes updated hydraulic calculations for the 3062 Bunker Hill Ln. overhead fire sprinkler system.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2017-00598
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**5/11/2017**
Permit Type:	**FIR**
Description:	**Upgrade backflows for existing campus: (2) 8" Wilkins 475DA RPDA backflow preventers to existing fire service that serves campus. This includes updated hydraulic calculations for the 3062 Bunker Hill Lane overhead fire sprinkler system.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2017-00578
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**8/30/2016**
Permit Type:	**FIR**
Description:	**Emergency repair for fire line.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2016-01080
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**4/13/2015**
Permit Type:	**FIR**
Description:	**Demo all existing fire alarm devices per owner's request and compliance with NFPA 72**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2015-00356
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**4/6/2015**
Permit Type:	**FIR**
Description:	**Add (15) new heads and demo old heads in lobby area, Bldg. B**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2015-00319
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**2/19/2015**
Permit Type:	**BLD**
Description:	**Address change-retire address 5101 Patrick Henry Dr including suites # 100, 200, 202, and assign new address 3062 Bunker Hill -Requires Address signage on building~ New C of O**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2015-37697
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	BIXBY LAND COMPANY

PATRICK HENRY DR

5201 PATRICK HENRY DR

Date:	**10/30/2012**
Permit Type:	**FIR**
Description:	**Install (1) duct detector and (1) relay module for new fire smoke damper**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2012-00818
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**10/24/2012**
Permit Type:	**FIR**
Description:	**Relocate (9) existing ssp and add (5) new ssp to accomodate new walls to ceiling.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2012-00805
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**10/24/2012**
Permit Type:	**PRJ**
Description:	**Interior Alterations To Include Upgrade (E) Restrooms, Locker Rooms On 3rd Floor (Work in B Occ only)**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2012-07755
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**5/22/2012**
Permit Type:	**BLD**
Description:	**Interior Alterations To Include Upgrade (E) Restrooms, Locker Rooms On 3rd Floor (Work in B Occ only). //MF=20**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2012-28702
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	EQUIPTEC MECHANICAL, INC.

Date:	**5/3/2012**
Permit Type:	**FIR**
Description:	**Add two upright sprinklers underneath (N) ductwork.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2012-00341
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**5/3/2012**
Permit Type:	**PRJ**
Description:	**R/R BOILER / (2) (N) BOILERS IN AN (E) INTERIOR CHILLER ROOM**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2012-07359
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**8/11/2011**
Permit Type:	**BLD**
Description:	**R/R BOILER / (2) (N) BOILERS IN AN (E) INTERIOR CHILLER ROOM. //MF=4**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2011-26270
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	THERMAL MECHANICAL

ADJOINING PROPERTY FINDINGS

Date:	**5/1/2008**
Permit Type:	**FIR**
Description:	**Install (2) new hood & duct systems in kitchen area - 30 devices**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2008-00286
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**2/27/2008**
Permit Type:	**FIR**
Description:	**Installing (1) 400 gallon above-ground diesel tank with generator outside for DATA center support only. Optional system.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2008-00152
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**2/21/2008**
Permit Type:	**BLD**
Description:	**Install (N) Non-Emergency Generator With 8' CMU Enclosure /**
	MF
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2008-16195
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PROGRESSIVE ELECTRIC

Date:	**2/21/2008**
Permit Type:	**PRJ**
Description:	**Architectural review of emergency generator and enclosure, with**
	above ground 400-gallon diesel fuel belly tank
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2008-04161
Status:	Application Received
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**9/19/2007**
Permit Type:	**FIR**
Description:	**Replace existing UPS system in data-center. Remove 60KW, Install 120KW with UPS batteries below maximum allowable quantities.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2007-00528
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**9/19/2007**
Permit Type:	**PRJ**
Description:	**Replace (E) UPS System in Data Center**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2007-03769
Status:	Application Received
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**9/18/2007**
Permit Type:	**BLD**
Description:	**Replace (E) UPS System in Data Center MF=4**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2007-14590
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PROGRESSIVE ELECTRIC

Date:	**2/8/2007**
Permit Type:	**FIR**
Description:	**Install (6 heads) new sidewalls, sprinklers to protet underneath the existing cloth covering at skylight in lobby.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2007-00080
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**8/16/2002**
Permit Type:	**FIR**
Description:	**NEW SYSTEM - 269 DEVICES**
	1-7-03 OT inspection request to Giang
	2-13-03 OT inspection request to Mark
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2002-00609
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**7/23/2002**
Permit Type:	**BLD**
Description:	**R/R (2) A/C UNITS / (1) ROOFTOP 670 LBS / (1) FLOOR**
	MOUNTED 1960 LBS
	MF=2
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2002-02782
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	THERMAL MECHANICAL

ADJOINING PROPERTY FINDINGS

5301 PATRICK HENRY DR

Date:	**5/27/2021**
Permit Type:	**FIR**
Description:	**Interior Finish - 43,807 sf remodel of existing shell space for new labs, office, storage, research and development. Exterior improvements include 1866 sf utility yard, 3880 sf loading area, exterior patio, and improvements to existing parking lot, including new EV charging stalls, landscape, and irrigation.**
Permit Description:	**FIRE PERMIT**
Work Class:	PH02 LAB TI FINISH
Proposed Use:	
Permit Number:	FIR2021-00543
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**5/26/2021**
Permit Type:	**BLD**
Description:	**Interior Finish - 43,807 sf remodel of existing shell space for new labs, office, storage, research and development. Exterior improvements include 1866 sf utility yard, 3880 sf loading area, exterior patio, and improvements to existing parking lot, including new EV charging stalls, landscape, and irrigation.**
Permit Description:	**BUILDING PERMIT**
Work Class:	PH02 LAB TI FINISH
Proposed Use:	
Permit Number:	BLD2021-61554
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**5/26/2021**
Permit Type:	**BLD**
Description:	**Structural Package related to the tenant improvement BLD2021-61554.**
Permit Description:	**BUILDING PERMIT**
Work Class:	PH02 LAB STRUCTURAL
Proposed Use:	
Permit Number:	BLD2021-61555
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**12/16/2020**
Permit Type:	**FIR**
Description:	**Removal of existing tools within the space** **Installation of new 500A bus plug, isolation transformer, and 500A fused disconnect.** **Installation of 100A pin and sleeve protected by 70A breaker bus plug.**
Permit Description:	**FIRE PERMIT**
Work Class:	APPLE BSA TOOL INSTALL
Proposed Use:	
Permit Number:	FIR2020-01199
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**12/9/2020**
Permit Type:	**BLD**
Description:	**Removal of existing tools within the space** **Installation of new 500A bus plug, isolation transformer, and 500A fused disconnect.** **Installation of 100A pin and sleeve protected by 70A breaker bus plug.**
Permit Description:	**BUILDING PERMIT**
Work Class:	APPLE BSA TOOL INSTALL
Proposed Use:	
Permit Number:	BLD2020-60050
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**9/15/2020**
Permit Type:	**FIR**
Description:	**Installation of new 120V and 480V power and seismic anchorage for new R&D tool equipment. No hazardous materials or processes will be employed or used with this tool.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2020-00867
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**8/27/2020**
Permit Type:	**BLD**
Description:	**Installation of new 120V and 480V power and seismic anchorage for new R&D tool equipment. No hazardous materials or processes will be employed or used with this tool.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2020-59085
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**8/19/2019**
Permit Type:	**FIR**
Description:	**Fire Alarm System (60 devices)**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2019-01108
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**8/19/2019**
Permit Type:	**FIR**
Description:	**ERRCS**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2019-01109
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**6/15/2019**
Permit Type:	**FIR**
Description:	**Modification to the fire sprinkler system - 140 heads**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2019-00835
Status:	REC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**5/30/2019**
Permit Type:	**BLD**
Description:	**INTERIOR DEMO in preparation for commercial tenant improvement (BLD2019-54103)**
Permit Description:	**BUILDING PERMIT**
Work Class:	TI APPLE
Proposed Use:	
Permit Number:	BLD2019-54967
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**3/20/2019**
Permit Type:	**BLD**
Description:	**TI New partitions, Data, Ceilings and lighting to support New offices, conference rooms, Break room, labs and electrical rooms. roof top equipment**
Permit Description:	**BUILDING PERMIT**
Work Class:	TI APPLE
Proposed Use:	
Permit Number:	BLD2019-54103
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**3/20/2019**
Permit Type:	**FIR**
Description:	**BLDG - Fire Fees Paid - TI New partitions, Data, Ceilings and lighting to support New offices, conference rooms, Break room, labs and electrical rooms. roof top equipment**
Permit Description:	**FIRE PERMIT**
Work Class:	TI APPLE
Proposed Use:	
Permit Number:	FIR2019-00388
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**10/17/2018**
Permit Type:	**BLD**
Description:	**TOOL INSTALLATION (8) to include tool removal Phase 1.8 in (e) R&D Lab**
Permit Description:	**BUILDING PERMIT**
Work Class:	APPLE
Proposed Use:	
Permit Number:	BLD2018-52592
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**3/28/2018**
Permit Type:	**BLD**
Description:	**Installation and anchoring of mobile shelving system, Pallet racking and shelving.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2018-50214
Status:	XPC
Valuation:	$0.00
Contractor Company:	
Contractor Name:	NEXT LEVEL WAREHOUSE SOLUTIONS

ADJOINING PROPERTY FINDINGS

Date:	**3/2/2018**
Permit Type:	**BLD**
Description:	**TOOL INSTALL- Remove & relocate (e) power unit tools, install (n) equipment, add power drops, revise cable tray.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2018-49981
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DEVCON CONSTRUCTION

Date:	**10/31/2017**
Permit Type:	**BLD**
Description:	**5.17.19- PERMIT RENEWED.// TOOL INSTALLATION 10 Tools in (e) Lab Area. Remove 1 (e) Tool.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2017-48684
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DEVCON CONSTRUCTION INC

ADJOINING PROPERTY FINDINGS

Date:	**9/20/2017**
Permit Type:	**FIR**
Description:	**Installation of a Optional Standby Generator with integral** **sub-base UL 142 tank of 74 gallons, Installation of a Optional Standby Generator with integral sub-base UL 142 tank of 74 gallons**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2017-01178
Status:	Resubmit Required, FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**9/1/2017**
Permit Type:	**FIR**
Description:	**Provide (4) monitor modules for generator.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2017-01083
Status:	ISS
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**6/28/2017**
Permit Type:	**FIR**
Description:	**Removal of standby generator and above ground diesel storage tank.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2017-00799
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**6/15/2017**
Permit Type:	**FIR**
Description:	**Provide (6) monitor modules and a relay for the monitoring of alarm, supervisory and trouble for dry pipe system @ first floor. Connect to an existing FACP - Alarm**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2017-00735
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**5/2/2017**
Permit Type:	**FIR**
Description:	**Install a new Overhead Sprinkler Dry System to supply 2 heads in a battery test chamber**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2017-00534
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**4/27/2017**
Permit Type:	**FIR**
Description:	**Provide (3) monitor modules for gas system monitoring at first floor T.I. (Separate gas detection permit required. Gas life safety system for O2 & H2 detection).**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2017-00514
Status:	ACT
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**4/19/2017**
Permit Type:	**FIR**
Description:	**Adding H2 and 02 detectors to existing gas detection system for new tool.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2017-00462
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**4/19/2017**
Permit Type:	**PRJ**
Description:	**Tool install**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2017-11801
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**3/21/2017**
Permit Type:	**FIR**
Description:	**TENANT IMPROVEMENT- Construct (n) walls in (e) office for new work area, including equipment installation.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2017-00360
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**3/17/2017**
Permit Type:	**FIR**
Description:	**Modify coverage due to new walls and ceiling (add 1 SSP and 7 SSU).**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2017-00342
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**3/17/2017**
Permit Type:	**PRJ**
Description:	**TENANT IMPROVEMENT- Construct (n) walls in (e) office for new work area, including equipment installation.**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2017-11722
Status:	Application Received
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**3/16/2017**
Permit Type:	**FIR**
Description:	**Office space TI - adding (6) devices to existing system.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2017-00340
Status:	ACT
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**3/7/2017**
Permit Type:	**BLD**
Description:	**TENANT IMPROVEMENT- Construct (n) walls in (e) office for new work area, including equipment installation.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2017-46065
Status:	FNL
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DEVCON CONSTRUCTION

Date:	**10/7/2016**
Permit Type:	**BLD**
Description:	**PERMIT RENEWAL 9/20/18: Tool install/revision to equipment**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2016-44550
Status:	ACT
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DEVCON CONSTRUCTION, INC.

ADJOINING PROPERTY FINDINGS

Date:	**8/31/2016**
Permit Type:	**FIR**
Description:	**Replace (2) below grade backflow preventers with (2) above ground backflow preventers for a looped system serving one building**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2016-01088
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**1/5/2016**
Permit Type:	**FIR**
Description:	**Install Refrigerant Detection System for Existing Refrigeration System**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2016-00008
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**10/20/2015**
Permit Type:	**FIR**
Description:	**Installation of a new fire alarm system (57 devices) for Pegasus Phase 1**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2015-01186
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**10/9/2015**
Permit Type:	**FIR**
Description:	**Modify (E) fire sprinkler system for Pegasus Phase 1 (includes hydraulic calculations for 15 psi loss for Wilkins 475DA RPDA) - 75 heads**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2015-01138
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**9/15/2015**
Permit Type:	**BLD**
Description:	**REROOF- Commercial - Remove existing roofing and install new built up roofing**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2015-39965
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	STATEWIDE ROOFING, INC

Date:	**8/5/2015**
Permit Type:	**FIR**
Description:	**INTERIOR ALTERATION - Phase 1 of 2; Repair of damaged slab, relocate roof supports, new restrooms, new finishes, walls, doors to create testing and mechanical rooms, new HVAC - all work in northeast corner and main corridor (Occ. F-1, S-1, B)**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2015-00803
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**7/30/2015**
Permit Type:	**BLD**
Description:	**RENEWED PERMIT 2/08/2016 EXPIRES 8/6/2016 **Update Scope: demo metal building, demo HVAC equipment and concret pad, including elect, plumbing, and mech (Sheet D201 Scope 33-44) 9/21/2015** INTERIOR DEMOLITION- Remove damaged concrete slab and all interior plumbing and finishes in bathrooms in preparation for future TI**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2015-39449
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DEVCON CONSTRUCTION

Date:	**7/30/2015**
Permit Type:	**BLD**
Description:	**INTERIOR ALTERATION -PHase 1 of 2; Repair of damaged slab, relocate some roof supports, new restrooms, new finishes, walls, doors to create testing and mechanical rooms, new HVAC -all work in northeast corner and main corridor// 12/18/2016; Addendum for gate addition & access ramp to enclosure.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2015-39450
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	W F BATTON + CO INC

ADJOINING PROPERTY FINDINGS

Date:	**7/30/2015**
Permit Type:	**PRJ**
Description:	**INTERIOR DEMOLITION- Remove damaged concrete slab and all interior plumbing and finishes in bathrooms in preparation for future TI**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2015-10176
Status:	Application Received
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**3/10/2015**
Permit Type:	**BLD**
Description:	**3RD PARTY PLAN CHECK ~ Commercial addition and interior remodel to (e) two story building to be at cold shell state *Future permits & C of O will be issue for finish interior required**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2015-37869
Status:	Cancelled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	TICO CONSTRUCTION INC

ADJOINING PROPERTY FINDINGS

Date:	**2/12/2015**
Permit Type:	**BLD**
Description:	**PLN2014-10860: Interior non-structural demo of entire building: including restrooms, cafeteria area. Restore to shell and cap all utilities**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2015-37624
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	TICO CONSTRUCTION INC

Date:	**2/12/2015**
Permit Type:	**PRJ**
Description:	**Remodel and renovation of site - includes tree replacement plan**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2015-09685
Status:	Application Received
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**3/12/2014**
Permit Type:	**FIR**
Description:	**Hazardous materials closure - complete facility closure**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2014-00187
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**11/15/2013**
Permit Type:	**FIR**
Description:	**Relypsa is closing their final lab in the building they share**
	Abbott. Abbott will take over space.
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2013-00885
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**5/28/2013**
Permit Type:	**FIR**
Description:	**Install new UL 300 fire suppression system for ventless hood plenum protection serving a convection oven only.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2013-00378
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**4/15/2013**
Permit Type:	**FIR**
Description:	**Tenant Improvement - Fire Alarm (21) new, (13) relocated devices.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2013-00252
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**4/10/2013**
Permit Type:	**FIR**
Description:	**Modify existing OH system - 94 heads**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2013-00242
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**4/3/2013**
Permit Type:	**FIR**
Description:	**Install new Clean Agent Fire Suppression and Pre-action Detection & Control system within First Floor Server Room - (15) devices.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2013-00227
Status:	Cancelled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**2/25/2013**
Permit Type:	**BLD**
Description:	**Demo- Remove walls, floors, ceilings to prepare for future permit, BLD2013-30683 .//MF=10**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2013-30975
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	MAI INDUSTRIES

Date:	**2/12/2013**
Permit Type:	**BLD**
Description:	**Remove and replace water cooled chiller**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2013-30871
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	WESTERN ALLIED MECHANICAL

ADJOINING PROPERTY FINDINGS

Date:	**1/18/2013**
Permit Type:	**FIR**
Description:	**Interior alterations to include (N) labs, nurse clinic, server rms, restrm upgrade. (N) Rootop equip. Restripe parking lot. (work in A occ area)**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2013-00050
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**1/17/2013**
Permit Type:	**BLD**
Description:	**Interior alterations to include (N) labs, nurse clinic, server rms, restrm upgrade. (N) Rootop equip. Restripe parking lot. Adding B, (A occ**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2013-30683
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	MAI INDUSTRIES

ADJOINING PROPERTY FINDINGS

Date:	**1/17/2013**
Permit Type:	**PRJ**
Description:	**Arch review of partial concrete parking lot replacement/maintenance and storm drain line repair**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2013-07932
Status:	Approved, Ready to Issue
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**12/12/2012**
Permit Type:	**BLD**
Description:	**Remove 17,000 sf of concrete driveway, replace with new concrete, grading to storm drains NO ELECTRICAL WORK**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2012-30433
Status:	Expired
Valuation:	$0.00
Contractor Company:	
Contractor Name:	O C JONES & SONS INC

ADJOINING PROPERTY FINDINGS

Date:	**12/11/2012**
Permit Type:	**FIR**
Description:	**Partial closure of labs and office space.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2012-00925
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**11/9/2012**
Permit Type:	**FIR**
Description:	**Fire Alarm Tenant Improvement - Installation of (4) duct smoke detectors.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2012-00856
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**4/10/2012**
Permit Type:	**BLD**
Description:	**New rooftop unit. New VFD for (E) unit. //MF=11**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2012-28279
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	WESTERN ALLIED MECHANICAL

ADJOINING PROPERTY FINDINGS

Date:	**12/16/2011**
Permit Type:	**BLD**
Description:	**Replace 4 rooftop AHU units. **FIELD VERIFY (E)**
	DISCONNECTS ARE PROPERLY SIZED FOR (N) UNITS.
	//MF=5
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2011-27429
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	Southland Industries

Date:	**10/28/2011**
Permit Type:	**BLD**
Description:	**(N) Pad For (N) High Voltage Metering / Relocate (E)**
	Transformer
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2011-26928
Status:	Application Expired
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SERRANO ELECTRIC INC.

ADJOINING PROPERTY FINDINGS

Date:	**8/31/2011**
Permit Type:	**BLD**
Description:	**INSTALL (1) (N) CHILLER / REMOVE (2) CHILLERS / EXHUST FAN IN MECH ROOM. //MF=9**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2011-26439
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	WESTERN ALLIED MECHANICAL

Date:	**6/20/2008**
Permit Type:	**BLD**
Description:	**Remove existing 7540 # rooftop air handler and install new 3700 # rooftop air handler.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2008-17333
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	WESTERN ALLIED MECHANICAL

ADJOINING PROPERTY FINDINGS

Date:	**5/30/2007**
Permit Type:	**FIR**
Description:	**Provide notification in lab area, including door holders & smoke detectors - 47 devices**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2007-00300
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**11/16/2006**
Permit Type:	**FIR**
Description:	**Modifying existing fire alarm system in Analytical and open office area.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2006-00763
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**9/20/2006**
Permit Type:	**FIR**
Description:	**remove 2, relocate 4 and add 1 ceiling sprinkler due to wall & light changes in rooms 316, 320, 373, 363, 362**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2006-00660
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**9/12/2006**
Permit Type:	**BLD**
Description:	**INTERIOR ALTERATIONS TO (E) OFFICES/ LABS / PARKING LOT HANDICAP RESTRIPE / (3) (N) A/C ROOFTOP UNITS / (N) NITROGEN TANK**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2006-10908
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	LANDMARK BUILDERS

ADJOINING PROPERTY FINDINGS

Date:	**6/6/2006**
Permit Type:	**FIR**
Description:	**Complete closure.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2006-00428
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**10/31/2005**
Permit Type:	**FIR**
Description:	**Adding 4 new heads and relocating 5 in Lab 167.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2005-00682
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**4/14/2005**
Permit Type:	**BLD**
Description:	**INTERIOR ALTERATIONS TO (E) LABS / ROOFTOP UNIT** **MF=39**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2005-05912
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	MEADE CONSTRUCTION GROUP

ADJOINING PROPERTY FINDINGS

Date:	**1/8/2003**
Permit Type:	**BLD**
Description:	**PERMIT TO COMPLETE WORK - BLD2001-13506 (CHANGE IN CONTRACTOR) (SCANNED LETTER FROM OWNER) ORIGINAL WORK FOR: REMOVE AND REPLACE (2) ROOF TOP 14,000 LB COOLING TOWERS AND ADD NEW DUCT SUPPORT**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2003-04327
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	WESTERN ALLIED CORPORATION

Date:	**1/8/2003**
Permit Type:	**PRJ**
Description:	**Remove and replace TWO (2) roof top 14,000 lb cooling towers and add new duct support.**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2003-02077
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date:	**12/17/2001**
Permit Type:	**BLD**
Description:	**Remove and replace TWO (2) roof top 14,000 lb cooling towers and add new duct support.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2001-13506
Status:	Cancelled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ABBOTT LABORATORIES

Date:	**3/12/2001**
Permit Type:	**FIR**
Description:	**2 STROBES**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2001-00265
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**2/27/2001**
Permit Type:	**BLD**
Description:	**ADD ELEC FOR MEZZANINE T.I.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2001-10616
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	KEENE ELECTRIC

ADJOINING PROPERTY FINDINGS

Date:	**2/27/2001**
Permit Type:	**PRJ**
Description:	**T.I. MEZZANINE**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2001-01098
Status:	Application Received
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**2/23/2001**
Permit Type:	**BLD**
Description:	**MEZZANINE T.I.**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2001-10559
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ADACON CORPORATION

Date:	**12/21/2000**
Permit Type:	**BLD**
Description:	**DEMO INTERIOR N.B. WALLS IN MEZZANINE**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2000-14894
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ADACON CORPORATION

ADJOINING PROPERTY FINDINGS

Date:	**10/11/2000**
Permit Type:	**BLD**
Description:	**ADD MECH TO BLD2000-13186**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2000-13981
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	WESTERN ALLIED CORPORATION

Date:	**9/6/2000**
Permit Type:	**FIR**
Description:	**ADD 6 SSP HEADS & RELOCATE 2 SSP HEADS IN NEW DECON ROOM.**
Permit Description:	**FIRE PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	FIR2000-00916
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**8/22/2000**
Permit Type:	**BLD**
Description:	**ADD ELEC TO BLD2000-13186**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2000-13328
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DESIGN ELECTRIC

ADJOINING PROPERTY FINDINGS

Date:	**8/15/2000**
Permit Type:	**BLD**
Description:	**ADD PLUMBING: (2) SINKS IN LAB AREA**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2000-13212
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	KDS PLUMBING

Date:	**8/15/2000**
Permit Type:	**PRJ**
Description:	**alter interior wall layout below mezzanine..**
Permit Description:	**PROJECT**
Work Class:	
Proposed Use:	
Permit Number:	PRJ2000-01281
Status:	Active
Valuation:	$0.00
Contractor Company:	
Contractor Name:	

Date:	**8/11/2000**
Permit Type:	**BLD**
Description:	**alter interior wall layout below mezzanine..**
Permit Description:	**BUILDING PERMIT**
Work Class:	
Proposed Use:	
Permit Number:	BLD2000-13186
Status:	Finaled
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DEVCON CONSTRUCTION INC

GLOSSARY

General Building Department concepts

- **ICC:** The International Code Council. The governing body for the building/development codes used by all jurisdictions who've adopted the ICC guidelines. MOST of the US has done this. Canada, Mexico, and other countries use ICC codes books and guides as well. There are a few states who have added guidelines to the ICC codes to better fit their needs. For example, California has added seismic retrofit requirements for most commercial structures.
- **Building Department (Permitting Authority, Building Codes, Inspections Department, Building and Inspections):** This is the department in a jurisdiction where an owner or contractor goes to obtain permits and inspections for building, tearing down, remodeling, adding to, re-roofing, moving or otherwise making changes to any structure, Residential or Commercial.
- **Jurisdiction:** This is the geographic area representing the properties over which a Permitting Authority has responsibility.
- **GC:** General Contractor. Usually the primary contractor hired for any Residential or Commercial construction work.
- **Sub:** Subordinate contracting companies or subcontractors. Usually a "trades" contractor working for the GC. These contractors generally have an area of expertise in which they are licensed like Plumbing, Electrical, Heating and Air systems, Gas Systems, Pools etc. (called "trades").
- **Journeymen:** Sub contractors who have their own personal licenses in one or more trades and work for different contracting companies, wherever they are needed or there is work.
- **HVAC (Mechanical, Heating & Air companies):** HVAC = Heating, Ventilation, and Air Conditioning.
- **ELEC (Electrical, TempPole, TPole, TPower, Temporary Power, Panel, AMP Change, Power Release):** Electrical permits can be pulled for many reasons. The most common reason is to increase the AMPs of power in an electrical power panel. This requires a permit in almost every jurisdiction. Other commons reason for Electrical permits is to insert a temporary power pole at a new construction site. Construction requires electricity, and in a new development, power has yet to be run to the lot. The temporary power pole is usually the very first permit pulled for new development. The power is released to the home owner when construction is complete and this sometimes takes the form of a Power Release permit or inspection.
- **"Pull" a permit:** To obtain and pay for a building permit.
- **CBO:** Chief Building Official
- **Planning Department:** The department in the development process where the building /structural plans are reviewed for their completeness and compliance with building codes
- **Zoning Department:** The department in the development process where the site plans are reviewed for their compliance with the regulations associated with the zoning district in which they are situated.
- **Zoning District:** A pre-determined geographic boundary within a jurisdiction where certain types of structures are permitted / prohibited. Examples are Residential structure, Commercial/Retail structures, Industrial/Manufacturing structures etc. Each zoning district has regulations associated with it like the sizes of the lots, the density of the structures on the lots, the number of parking spaces required for certain types of structures on the lots etc.
- **PIN (TMS, GIS ID, Parcel#):** Property Identification Number and Tax Map System number.
- **State Card (Business license):** A license card issued to a contractor to conduct business.
- **Building Inspector (Inspector):** The inspector is a building department employee that inspects building construction for compliance to codes.
- **C.O.:** Certificate of Occupancy. This is the end of the construction process and designates that the owners now have permission to occupy a structure after its building is complete. Sometimes also referred to as a Certificate of Compliance.

GLOSSARY

Permit Content Definitions

- Permit Number: The alphanumerical designation assigned to a permit for tracking within the building department system. Sometimes the permit number gives clues to its role, e.g. a "PL" prefix may designate a plumbing permit.
- Description: A field on the permit form that allows the building department to give a brief description of the work being done. More often than not, this is the most important field for EP's to find clues to the prior use(s) of the property.
- Permit Type: Generally a brief designation of the type of job being done. For example BLDG-RES, BLDG-COM, ELEC, MECH etc.

Sample Building Permit Data

Date: Nov 09, 2000
Permit Type: Bldg -
New Permit Number: 101000000405
Status: Valuation: $1,000,000.00
Contractor Company: OWNER-BUILDER
Contractor Name:

Description: New one store retail (SAV-ON) with drive-thru pharmacy. Certificate of Occupancy.

5200 Patrick Henry Drive

5200 Patrick Henry Drive

Santa Clara, CA 95054

Inquiry Number: 6552598.4

July 08, 2021

EDR Historical Topo Map Report

with QuadMatch™

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

EDR Historical Topo Map Report

07/08/21

Site Name:

5200 Patrick Henry Drive
5200 Patrick Henry Drive
Santa Clara, CA 95054
EDR Inquiry # 6552598.4

Client Name:

ATC Group Services LLC
2001 Crow Canyon Road, Suite 210
San Ramon, CA 94583
Contact: Noli Valera

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by ATC Group Services LLC were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA
Project: TBD

Coordinates:

Latitude:	37.406409 37° 24' 23" North
Longitude:	-121.985321 -121° 59' 7" West
UTM Zone:	Zone 10 North
UTM X Meters:	589800.61
UTM Y Meters:	4140441.25
Elevation:	7.12' above sea level

Maps Provided:

2012	1889
1980, 1981	
1973	
1968	
1961	
1953	
1899	
1897	

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

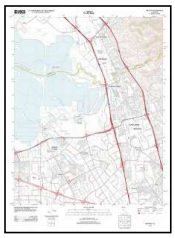
Copyright 2021 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



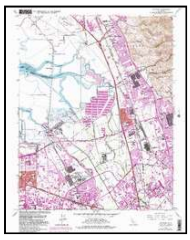
Milpitas

7.5-minute, 24000

Mountain View

7.5-minute, 24000

1980, 1981 Source Sheets



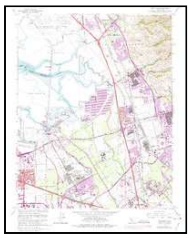
Milpitas

7.5-minute, 24000
Aerial Photo Revised 1979

Mountain View

7.5-minute, 24000
Aerial Photo Revised 1979

1973 Source Sheets



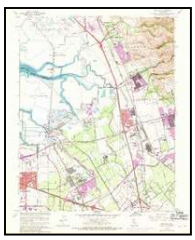
Milpitas

7.5-minute, 24000
Aerial Photo Revised 1973

Mountain View

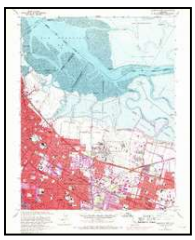
7.5-minute, 24000
Aerial Photo Revised 1973

1968 Source Sheets



Milpitas

7.5-minute, 24000
Aerial Photo Revised 1968



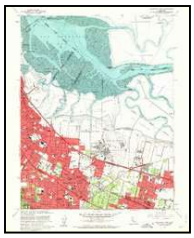
Mountain View

7.5-minute, 24000
Aerial Photo Revised 1968

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1961 Source Sheets



Mountain View

7.5-minute, 24000
Aerial Photo Revised 1960

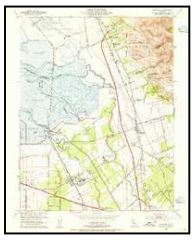
Milpitas

7.5-minute, 24000
Aerial Photo Revised 1960

1953 Source Sheets

Mountain View

7.5-minute, 24000
Aerial Photo Revised 1948



Milpitas

7.5-minute, 24000
Aerial Photo Revised 1948

1899 Source Sheets

Palo Alto

15-minute, 62500

San Jose

15-minute, 62500

1897 Source Sheets

Palo Alto

15-minute, 62500

San Jose

15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

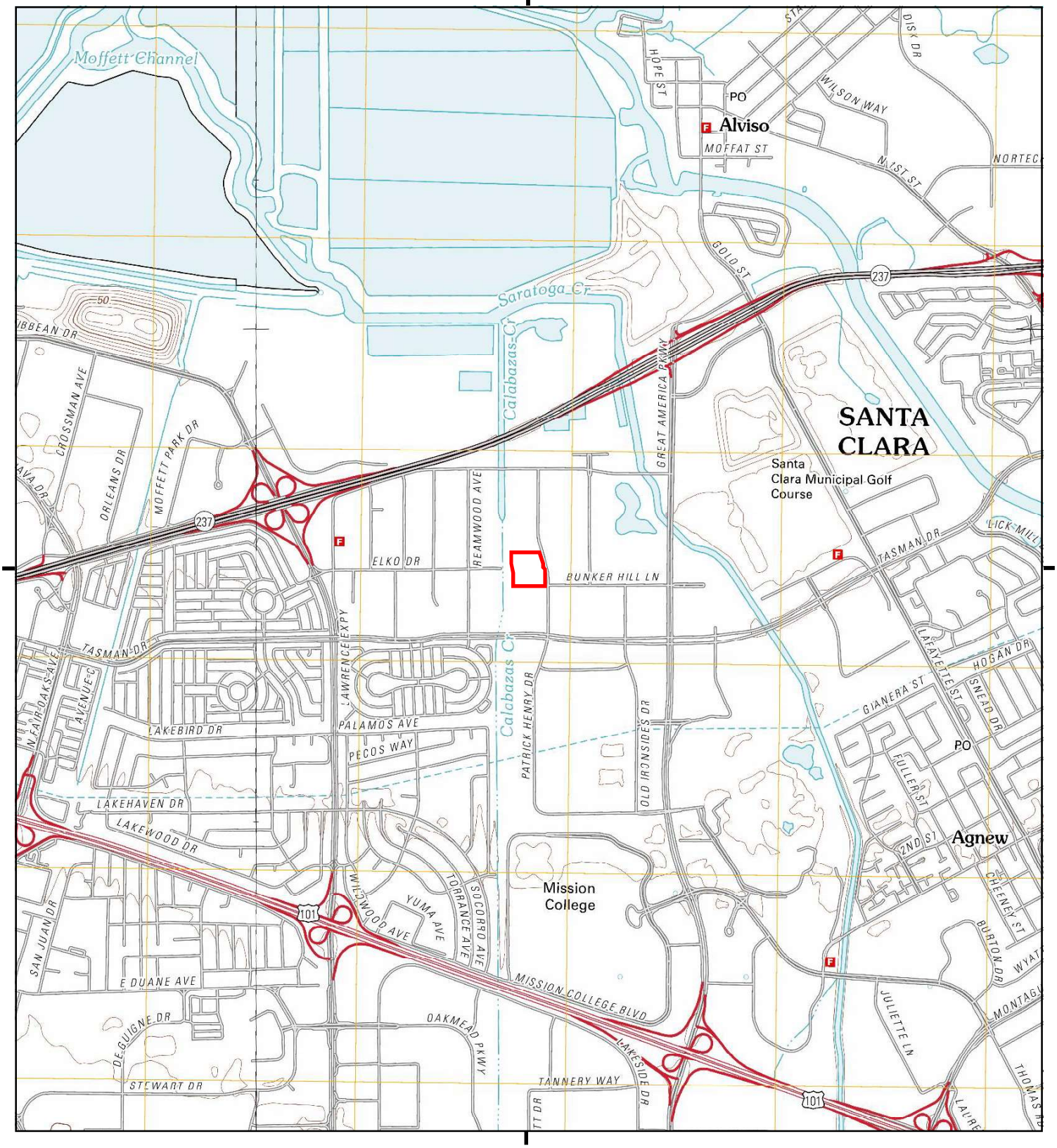
1889 Source Sheets

San Jose

15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

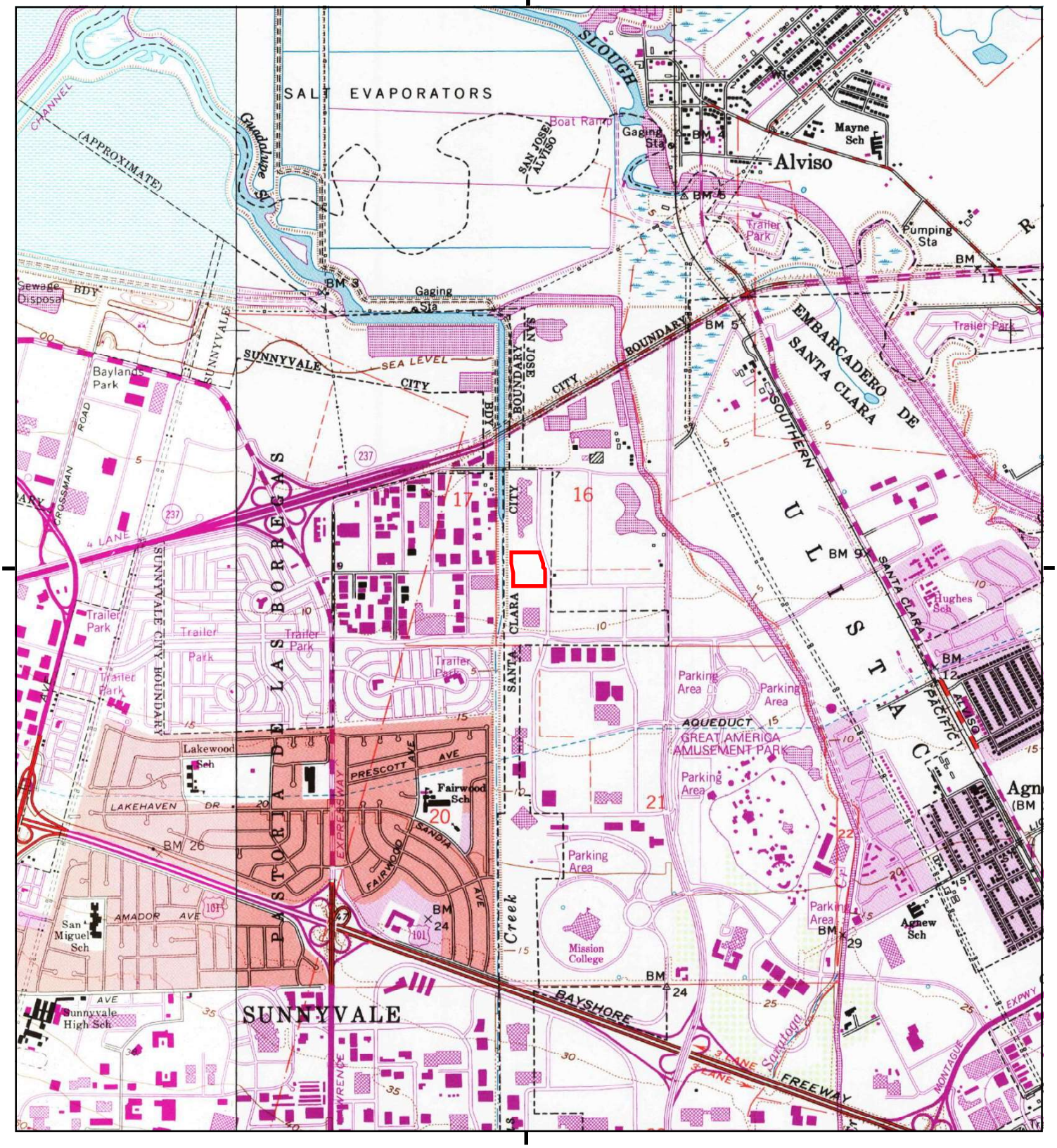
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Milpitas, 2012, 7.5-minute
NW, Mountain View, 2012, 7.5-minute

SITE NAME: 5200 Patrick Henry Drive
ADDRESS: 5200 Patrick Henry Drive
Santa Clara, CA 95054
CLIENT: ATC Group Services LLC

N



This report includes information from the following map sheet(s).

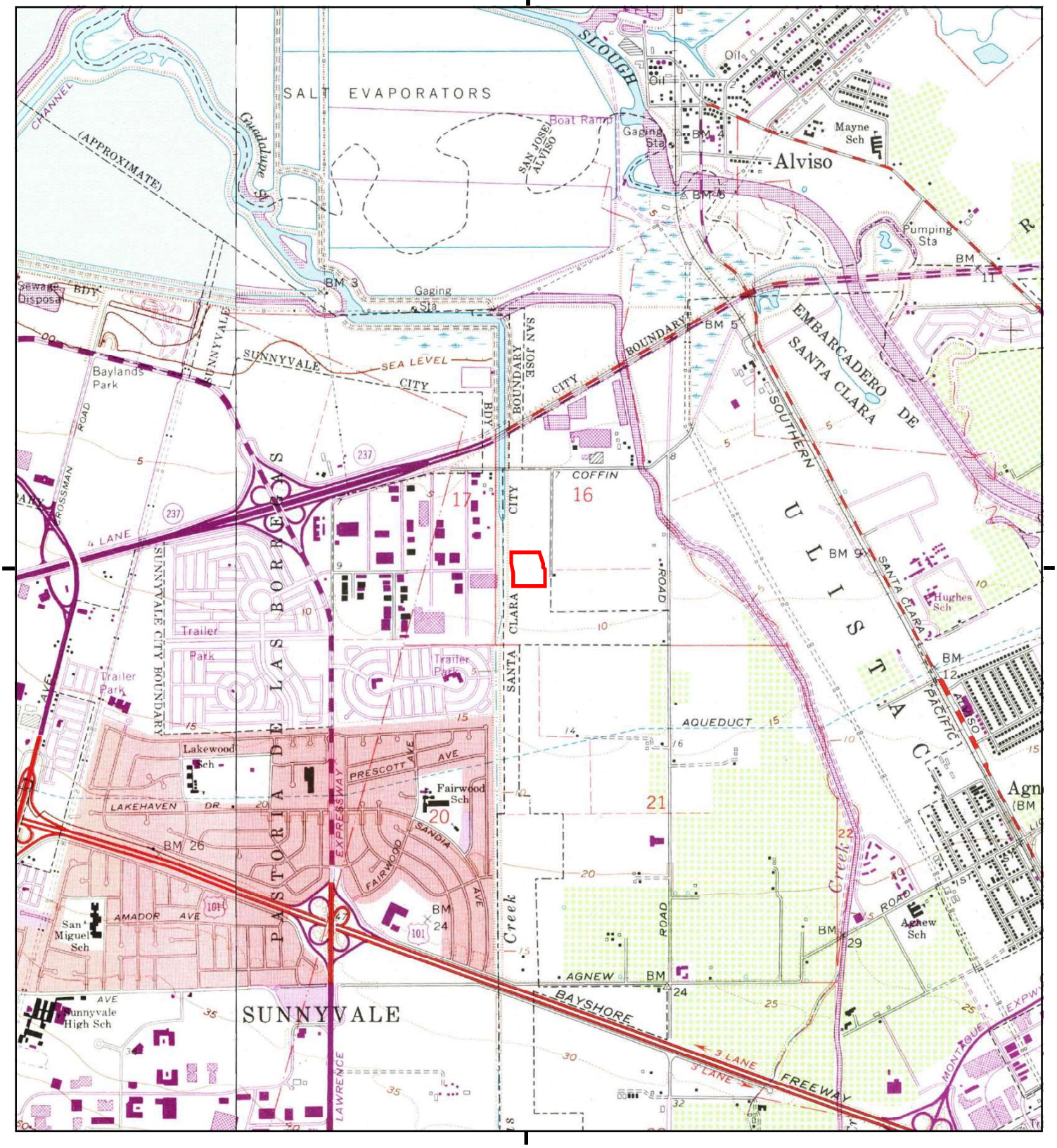
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Milpitas, 1980, 7.5-minute
NW, Mountain View, 1981, 7.5-minute

SITE NAME: 5200 Patrick Henry Drive
ADDRESS: 5200 Patrick Henry Drive
Santa Clara, CA 95054
CLIENT: ATC Group Services LLC

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

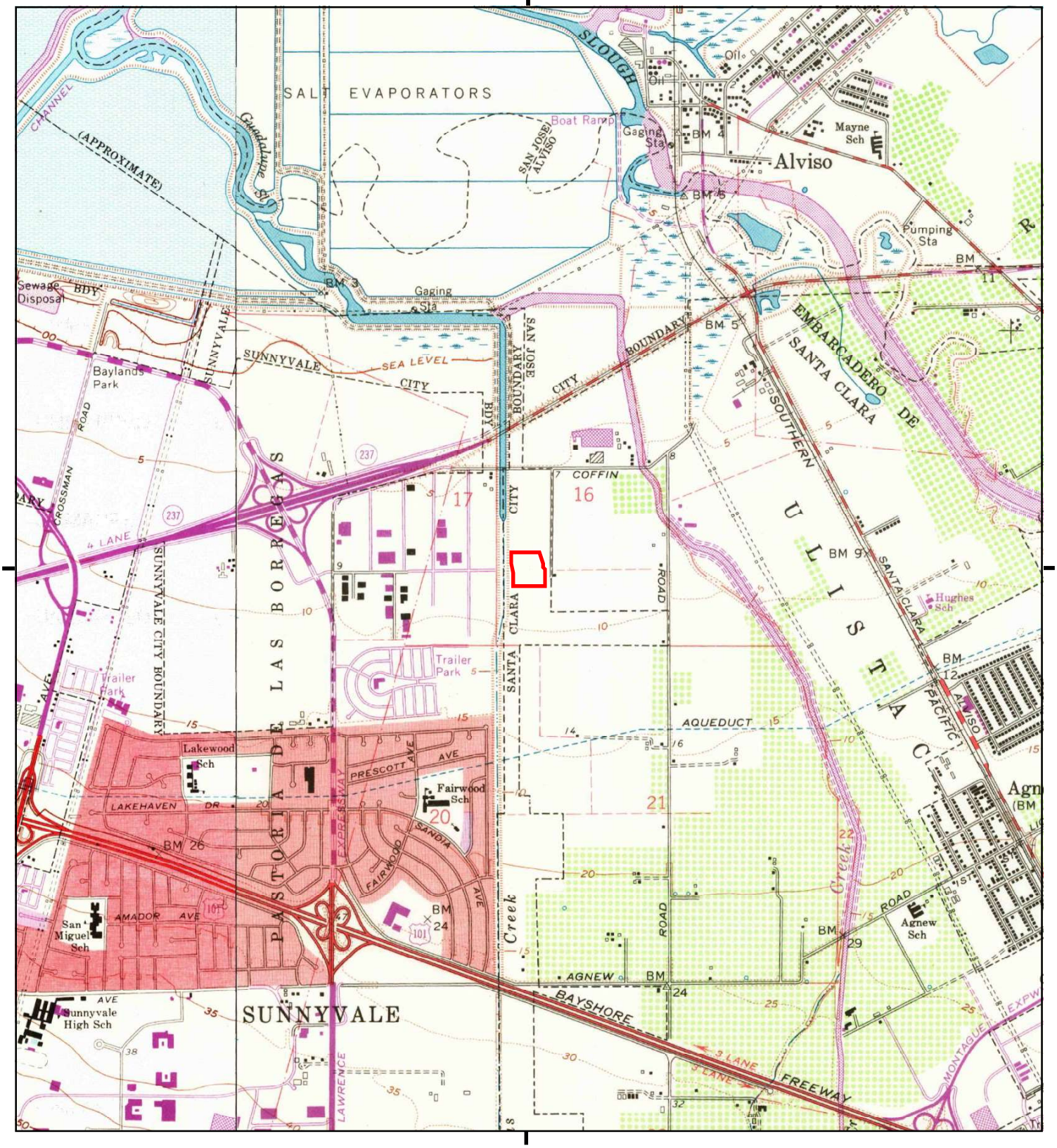
TP, Milpitas, 1973, 7.5-minute
NW, Mountain View, 1973, 7.5-minute

SITE NAME: 5200 Patrick Henry Drive
ADDRESS: 5200 Patrick Henry Drive
Santa Clara, CA 95054
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1968



This report includes information from the following map sheet(s).

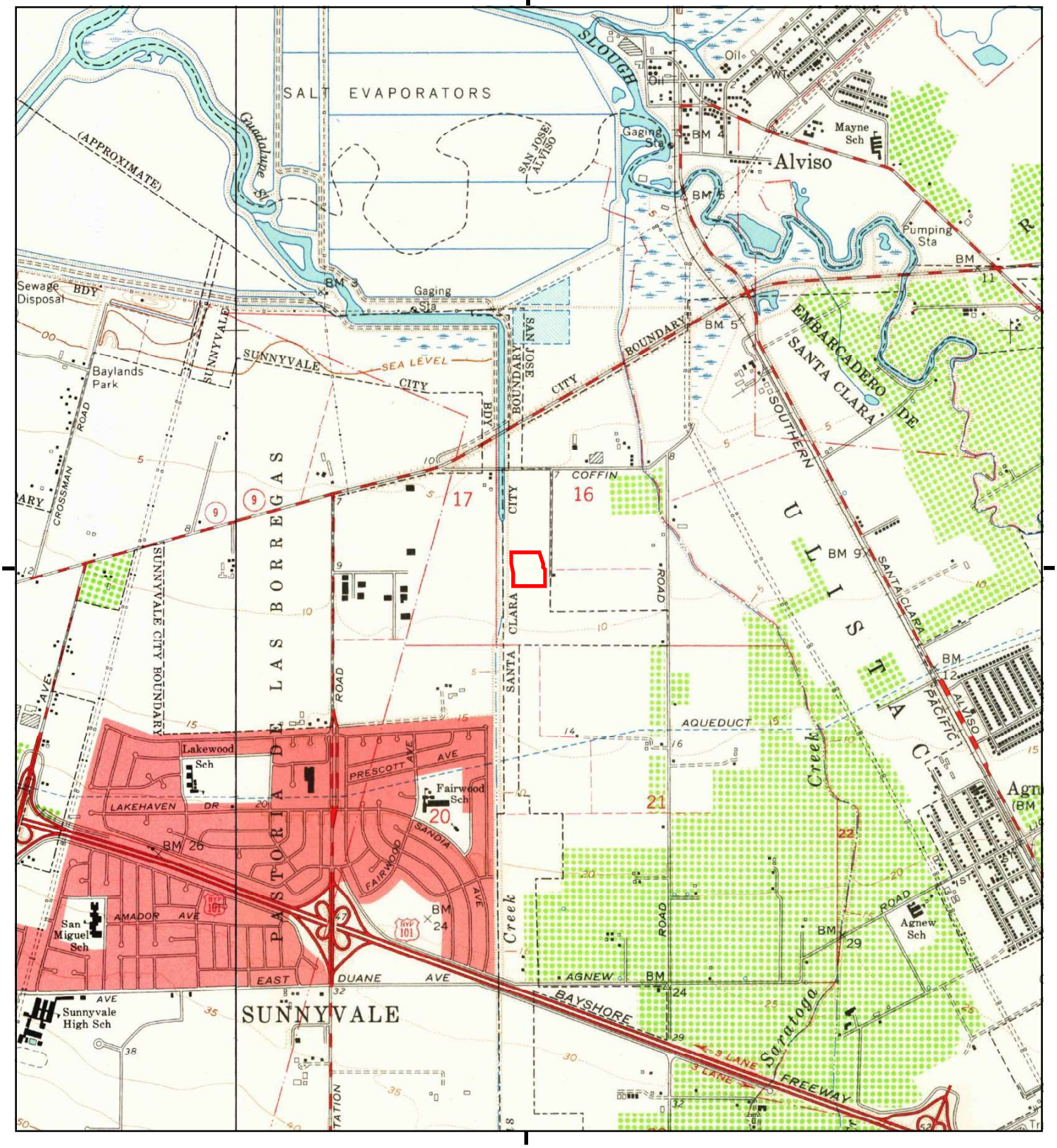
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Milpitas, 1968, 7.5-minute
NW, Mountain View, 1968, 7.5-minute

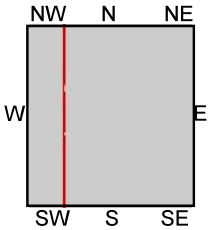
SITE NAME: 5200 Patrick Henry Drive
ADDRESS: 5200 Patrick Henry Drive
Santa Clara, CA 95054
CLIENT: ATC Group Services LLC

N



This report includes information from the following map sheet(s).

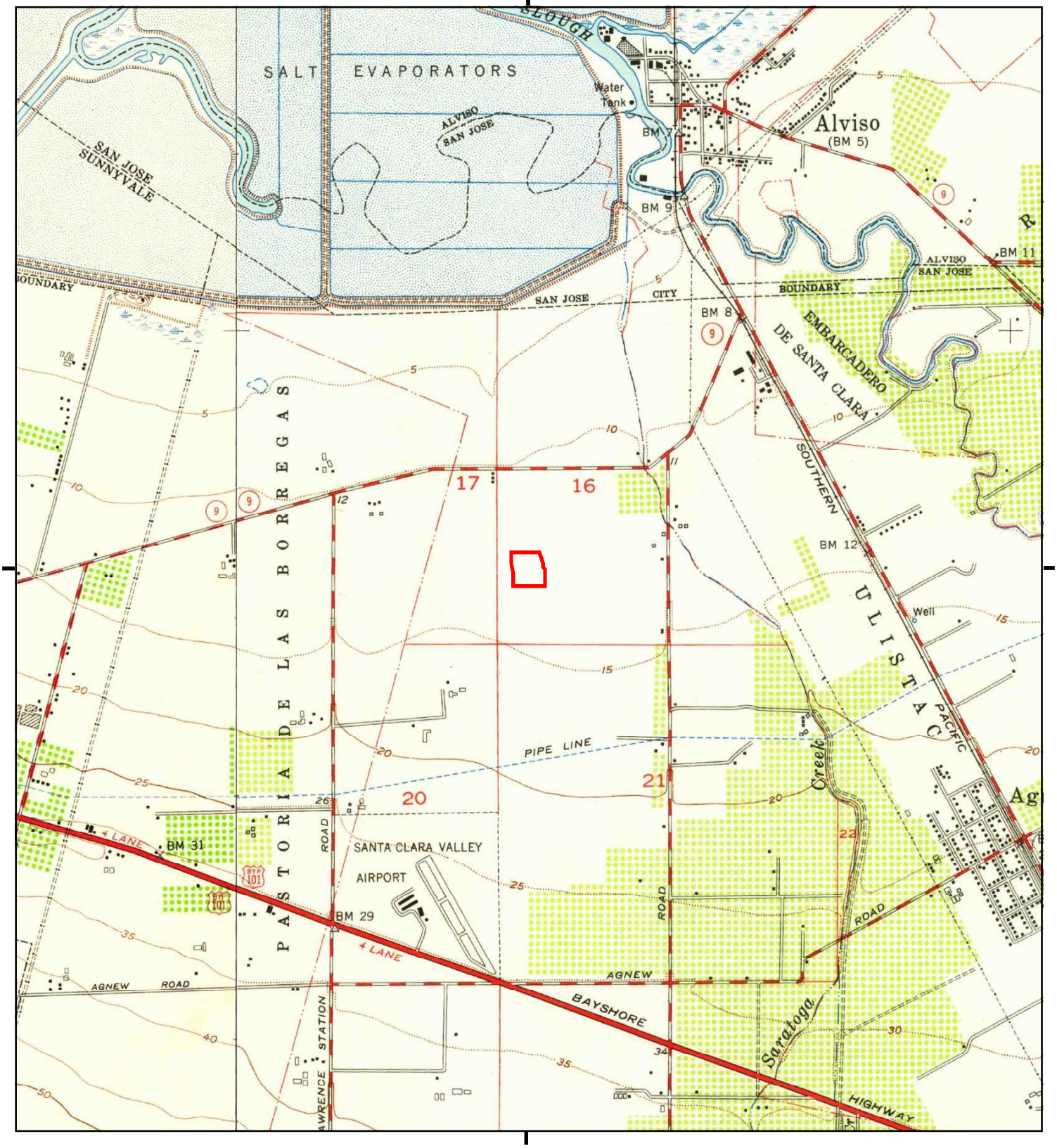
0 Miles 0.25 0.5 1 1.5



TP, Milpitas, 1961, 7.5-minute
NW, Mountain View, 1961, 7.5-minute

SITE NAME: 5200 Patrick Henry Drive
ADDRESS: 5200 Patrick Henry Drive
Santa Clara, CA 95054
CLIENT: ATC Group Services LLC

N



This report includes information from the following map sheet(s).

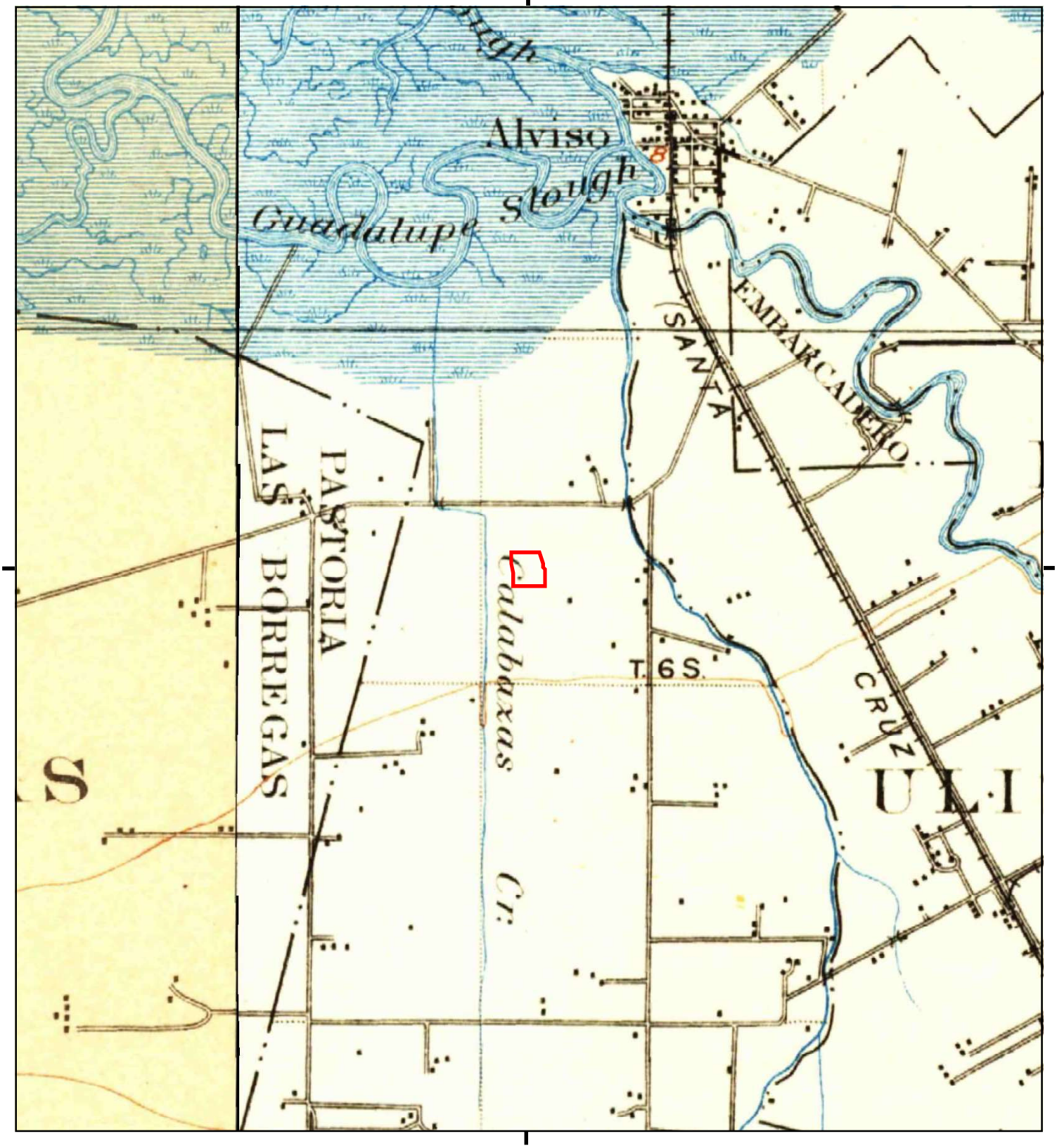
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Milpitas, 1953, 7.5-minute
NW, Mountain View, 1953, 7.5-minute

SITE NAME: 5200 Patrick Henry Drive
ADDRESS: 5200 Patrick Henry Drive
Santa Clara, CA 95054
CLIENT: ATC Group Services LLC

N



This report includes information from the following map sheet(s).

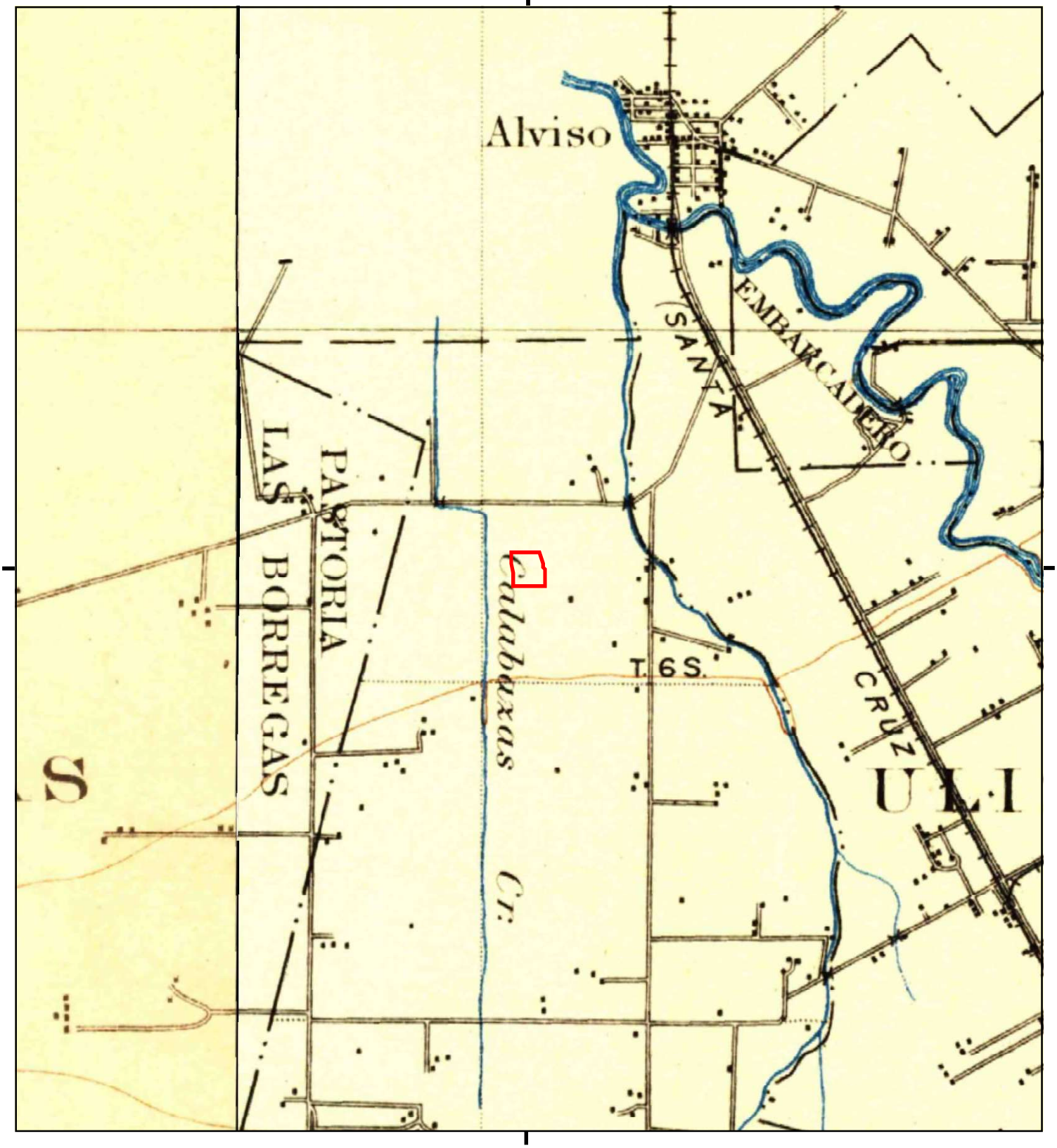
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, San Jose, 1899, 15-minute
W, Palo Alto, 1899, 15-minute

SITE NAME: 5200 Patrick Henry Drive
ADDRESS: 5200 Patrick Henry Drive
Santa Clara, CA 95054
CLIENT: ATC Group Services LLC

N



This report includes information from the following map sheet(s).

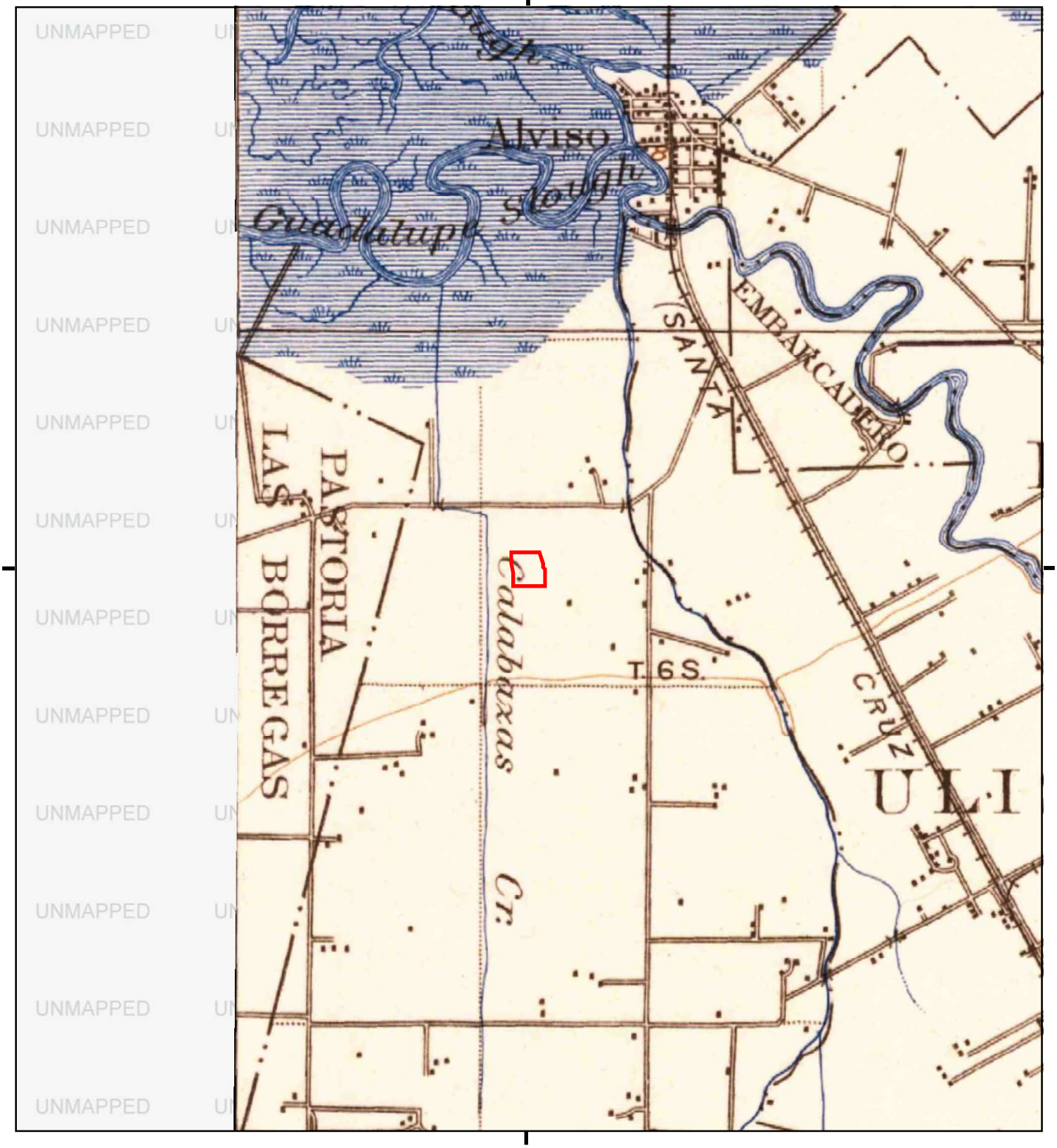
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, San Jose, 1897, 15-minute
W, Palo Alto, 1897, 15-minute

SITE NAME: 5200 Patrick Henry Drive
ADDRESS: 5200 Patrick Henry Drive
Santa Clara, CA 95054
CLIENT: ATC Group Services LLC

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, San Jose, 1889, 15-minute

SITE NAME: 5200 Patrick Henry Drive
ADDRESS: 5200 Patrick Henry Drive
Santa Clara, CA 95054
CLIENT: ATC Group Services LLC

N

5200 Patrick Henry Drive

5200 Patrick Henry Drive

Santa Clara, CA 95054

Inquiry Number: 6552598.3

July 08, 2021

Certified Sanborn® Map Report

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

Certified Sanborn® Map Report

07/08/21

Site Name:

5200 Patrick Henry Drive
5200 Patrick Henry Drive
Santa Clara, CA 95054
EDR Inquiry # 6552598.3

Client Name:

ATC Group Services LLC
2001 Crow Canyon Road, Suite 210
San Ramon, CA 94583
Contact: Noli Valera

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by ATC Group Services LLC were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 088D-4494-967F

PO # NA

Project TBD

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 088D-4494-967F

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

ATC Group Services LLC (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2021 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

APPENDIX H

PRIOR ASSESSMENTS

No documents have been associated with this appendix.

APPENDIX I

RESUMES

DESTINY HAZRA

Project Manager

OFFICE LOCATION
San Ramon, CA

EDUCATION
MA, Marine Affairs and Policy, University of Miami

BS, Biology, Wofford College

REGISTRATION
Certified Asbestos Inspector, State of California, Division of Occupational Safety and Health (Certificate Number 38295 IR, 2016)

SPECIALIZED TRAINING
Medic First Aid and CPR Training (CA, 2015)

HIRE DATE
6/2012

EXPERIENCE & RESPONSIBILITIES

Destiny Hazra serves as a direct contact and liaison for several of ATC's national clients. Ms. Hazra is responsible for project management at a national level, including: due diligence investigations (Phase I ESAs, PCAs, and Phase II ESAs), subsurface investigations and remedial actions, industrial hygiene projects, and regulatory compliance projects. Ms. Hazra engages local branches to perform environmental projects for national clients and tracks the status of the projects from the proposal development stage through invoicing stage. Her management tasks for national clients include compilation of scopes of work, preparation of cost proposals, senior review of technical documents and project deliverables, project status updates, and client relationship management..

PROJECT EXPERIENCE

Multiple Financial Clients, Phase I Environmental Site Assessments – Nationwide

Project Role: Conducts Environmental Assessments for major financial loan institutions and national clients in accordance with client-specific and/or ASTM protocols. Specific activities performed included site inspections; title searches; historical aerial photograph analyses; topographic and geologic map analyses; federal, state and local agency file reviews; and technical report preparation.

Transaction Screening Reports – California

Project Role: Performs Transaction Screenings of commercial, industrial, retail, and telecommunications facilities in accordance with ASTM E 1527-13.

Hazardous Material Surveys

Project Role: Asbestos and lead-based paint surveys with project scopes which range from limited renovation projects to full demolition projects.

Environmental Audits & Inspections

Project Role: Environmental audits and inspections per client scope of work which typically include on-site inspections of operations areas, review of waste handling, storage and disposal practices, identified existing and required permits and examined facility records related to environmental management and regulatory requirements.

Soil & Groundwater Investigations

Project Role: Subsurface investigations, including soil boring sampling, test pit explorations, groundwater sampling and groundwater monitoring well installation, as part of property characterizations for due diligence purposes.

National Environmental Policy Act (NEPA) Reviews – California

Project Role: Conducts Environmental Site Assessments, NEPA compliance studies, Biological Assessments, environmental permitting and additional NEPA requirements under the State Historic Preservation Office (SHPO) and Tribal Historic Preservation Office (THPO).

National Environmental Policy Act (NEPA) Consultant – Nationwide

Project Role: Conducts various phases of biological and environmental field investigations and data analysis related to the preparation of technical reports in accordance with NEPA. Current projects involve Environmental Planning to provide technical guidance, environmental documentation, regulatory permitting and agency coordination for an informed decision-making process related to Capital Improvement projects. Projects involve sustainable development/design to ensure environmental issues such as noise and vibration, air quality, critical habitat, hazardous wastes, soil and water quality are considered and these implications are balanced between society and stakeholders.

Florida Comprehensive Everglades Restoration Project, Faunal Density and Community Composition of the Nearshore Zone – Florida

Project Role: Managed and expedited all biological data sampling, identification of species, data processing, publishing reports. In addition, performed GIS and data acquisitions for a National Geodetic Survey (NGS)-sponsored Shallow Water Positioning System (SWaPS) Project mapping nearshore benthic habitats in Biscayne Bay, Florida. Coordinated the GIS-based field data acquisition of continuous high-resolution photographic data to monitor benthic habitats, assisted with the spatial analysis and correlative statistics for processed field data, and published results in a peer-reviewed journals.

NOLI VALERA

SENIOR PROJECT MANAGER

OFFICE LOCATION
San Ramon, CA

EDUCATION
M.S., Civil Engineering, Loyola Marymount University, 2015

B.A., Environmental Sciences, University of California, Berkeley, 2006

REGISTRATION
DOSH Certified Site Surveillance Technician (CSST), #08-4415

State of California Engineer-in-Training (EIT), June 2015

SPECIALIZED TRAINING
OSHA 40-Hour Health and Safety Training for Hazardous Waste Operations (HAZWOPER)

AHERA Accredited Building Inspector

AHERA Accredited Contractor/Supervisor

NIOSH 582 (Sampling and Quantitating Airborne Asbestos Dust) Training

First Aid/CPR Training

HIRE DATE
11/2006

EXPERIENCE & RESPONSIBILITIES

Noli Valera is an experienced environmental professional with more than 14 years of progressively responsible and diverse experience in the disciplines of environmental due diligence, compliance, industrial hygiene, and health and safety. He has provided consulting services for various lenders, real estate companies, law firms, developers, private equity firms, and government agencies.

PROJECT EXPERIENCE

Phase I ESAs for Lenders

Prepared, managed, and reviewed numerous Phase I Environmental Site Assessment reports for lending institutions, including Bank of the West, California Bank and Trust, Comerica Bank, JP Morgan Chase Bank, Union Bank, and Wells Fargo Bank. Assessments include multi-family residential, commercial (e.g. gasoline stations, dry cleaners), and industrial properties (e.g. warehouses, manufacturing facilities, refineries).

Phase I ESAs of Retail Gasoline Stations

Prepared, managed, and reviewed several 100 Phase I ESA reports for retail gasoline station facilities located throughout California. These assessments included thorough reviews of current equipment and compliance documentation, review of historical impacts and prior and/or ongoing subsurface investigations, and recommending additional assessments as necessary.

Phase I/II ESAs for Dry Cleaning Facilities

Prepared, managed, and reviewed Phase I/II ESA reports for dry cleaning facilities located throughout California. The assessments included thorough review of current equipment and compliance documentation, review of historical impacts and prior investigations, and soil and soil vapor assessments for potential subsurface impacts from chlorinated solvent usage.

Phase I ESAs for Commercial Shopping Centers

Prepared, managed, and reviewed Phase I Environmental Site Assessment reports for commercial shopping centers located throughout California. The assessments included review of subsurface investigations with ongoing remediation efforts for chlorinated solvent, petroleum, and metals releases into soil and groundwater.

Compliance Assessments/Phase I ESAs for Food Production Facilities

Conducted Phase I ESAs and compliance assessments for food processing facilities throughout California. The assessments included evaluations of wastewater and stormwater generation, hazardous waste management, and historical soil and groundwater impacts from on-site and off-site operations.

Environmental, Health and Safety Reviews for Electronics Manufacturer

Conducted Phase I ESAs, compliance reviews, and health and safety reviews for electronics manufacturing facilities in Calgary, Alberta, Canada. The reviews included evaluating hazardous material and hazardous waste management, stormwater and wastewater generation and permitting, and health and safety program deficiencies.

SPCC Plan Preparation for Metal Manufacturing Facility

Prepared a comprehensive Spill, Prevention, Control and Countermeasure (SPCC) Plan for a metal production facility in California. The plan included an evaluation of several hundred oil-containing aboveground storage tanks (ASTs) of varying sizes at the facility and review of stormwater and spill protection protocols.

EPCRA Preparation for Food Manufacturing Facility

Prepared a comprehensive Hazardous Materials Business Plan (HMBP) for a food manufacturing facility in California. The plan included an evaluation of all hazardous materials and hazardous wastes at the facility, emergency procedures, and on-site personnel.

KEY PERSONNEL

Asbestos/Lead/Mold Investigations for DMV

Conducted asbestos, lead, mold, and indoor air quality assessments for California Department of Motor Vehicles (DMV) offices throughout California. Collected samples, reviewed analytical data, prepared reports, and directed remediation efforts.

Asbestos Surveys and Remedial Oversight of Lending Institutions

Conducted comprehensive asbestos surveys and provided oversight of asbestos abatement projects for lending institutions throughout California. Asbestos surveys included review of previous investigations, assessment of current building finishes, sample collection, and report preparation. Abatement oversight consisted of supervising asbestos contractor removal, visual assessment, perimeter and clearance air sampling and on-site analysis, and issuance of clearance reports.

Fire Damage Surveys for Insurance Providers

Conducted fire damage, smoke, and asbestos surveys for single and multi-family residences throughout California in response to fire events. These assessments, which were prepared in response to fire insurance claims, consisted of bulk and air sample collection, report preparation, cleanup oversight, and follow-up assessments.

Noli Valera

Branch Manager/Senior Project Manager

Branch Location

- San Ramon, California

Education

- M.S., Civil Engineering, Loyola Marymount University, 2015
- B.A., Environmental Sciences, University of California, Berkeley, 2006

Professional Registrations/ Certifications

- DOSH Certified Site Surveillance Technician (CSST), #08-4415
- State of California Engineer-in-Training (EIT), June 2015

Specialized Training

- OSHA 40-Hour Health and Safety Training for Hazardous Waste Operations (HAZWOPER)
- AHERA Accredited Building Inspector
- AHERA Accredited Contractor/Supervisor
- NIOSH 582 (Sampling and Quantitating Airborne Asbestos Dust) Training
- First Aid/CPR Training

Professional Affiliations

- American Society of Civil Engineers (ASCE), Member
- Association of Corporate Growth (ACG), Member

ATC Start Date

- 11/2006

Noli Valera is an experienced environmental professional with more than 14 years of progressively responsible and diverse experience in the disciplines of environmental due diligence, compliance, industrial hygiene, and health and safety. He has provided consulting services for various lenders, real estate companies, law firms, developers, private equity firms, and government agencies.

Areas of Expertise

- Environmental Due Diligence
- Phase I and II Site Assessment Services
- Hazardous Material Management, EPCRA Reporting
- Environmental and Health/Safety Compliance Audits
- Industrial Hygiene, Indoor Air Quality, and Microbial Investigations
- Asbestos/Lead-Based Paint Management

Project Experience

Environmental Due Diligence

Phase I ESAs for Lenders

Prepared, managed, and reviewed numerous Phase I Environmental Site Assessment reports for lending institutions, including Bank of the West, California Bank and Trust, Comerica Bank, JP Morgan Chase Bank, Union Bank, and Wells Fargo Bank. Assessments include multi-family residential, commercial (e.g. gasoline stations, dry cleaners), and industrial properties (e.g. warehouses, manufacturing facilities, refineries).

Phase I ESAs of Retail Gasoline Stations

Prepared, managed, and reviewed several 100 Phase I ESA reports for retail gasoline station facilities located throughout California. These assessments included thorough reviews of current equipment and compliance documentation, review of historical impacts and prior and/or ongoing subsurface investigations, and recommending additional assessments as necessary.

Phase I/II ESAs for Dry Cleaning Facilities

Prepared, managed, and reviewed Phase I/II ESA reports for dry cleaning facilities located throughout California. The assessments included thorough review of current equipment and compliance documentation, review of historical impacts and prior investigations, and soil and soil vapor assessments for potential subsurface impacts from chlorinated solvent usage.

Phase I ESAs for Commercial Shopping Centers

Prepared, managed, and reviewed Phase I Environmental Site Assessment reports for commercial shopping centers located throughout California. The assessments included review of subsurface investigations with ongoing remediation efforts for chlorinated solvent, petroleum, and metals releases into soil and groundwater.

Environmental, Health & Safety Compliance

Compliance Assessments/Phase I ESAs for Food Production Facilities

Conducted Phase I ESAs and compliance assessments for food processing facilities throughout California. The assessments included evaluations of wastewater and stormwater generation, hazardous waste management, and historical soil and groundwater impacts from on-site and off-site operations.

Environmental, Health and Safety Reviews for Electronics Manufacturer

Conducted Phase I ESAs, compliance reviews, and health and safety reviews for electronics manufacturing facilities in Calgary, Alberta, Canada. The reviews included evaluating hazardous material and hazardous waste management, stormwater and wastewater generation and permitting, and health and safety program deficiencies.

SPCC Plan Preparation for Metal Manufacturing Facility

Prepared a comprehensive Spill, Prevention, Control and Countermeasure (SPCC) Plan for a metal production facility in California. The plan included an evaluation of several hundred oil-containing aboveground storage tanks (ASTs) of varying sizes at the facility and review of stormwater and spill protection protocols.

EPCRA Preparation for Food Manufacturing Facility

Prepared a comprehensive Hazardous Materials Business Plan (HMBP) for a food manufacturing facility in California. The plan included an evaluation of all hazardous materials and hazardous wastes at the facility, emergency procedures, and on-site personnel.

Industrial Hygiene

Asbestos/Lead/Mold Investigations for DMV

Conducted asbestos, lead, mold, and indoor air quality assessments for California Department of Motor Vehicles (DMV) offices throughout California. Collected samples, reviewed analytical data, prepared reports, and directed remediation efforts.

Asbestos Surveys and Remedial Oversight of Lending Institutions

Conducted comprehensive asbestos surveys and provided oversight of asbestos abatement projects for lending institutions throughout California. Asbestos surveys included review of previous investigations, assessment of current building finishes, sample collection, and report preparation. Abatement oversight consisted of supervising asbestos contractor removal, visual assessment, perimeter and clearance air sampling and on-site analysis, and issuance of clearance reports.

Fire Damage Surveys for Insurance Providers

Conducted fire damage, smoke, and asbestos surveys for single and multi-family residences throughout California in response to fire events. These assessments, which were prepared in response to fire insurance claims, consisted of bulk and air sample collection, report preparation, cleanup oversight, and follow-up assessments.

APPENDIX J

SCOPE OF WORK

PHASE I ESA SCOPE OF SERVICES

The proposed Phase I ESA will be conducted in general accordance with the ASTM Standard Practice E1527-13, consistent with a level of care and skill ordinarily practiced by the environmental consulting profession currently providing similar services under similar circumstances. The purpose of the ESA will be to identify *recognized environmental conditions* in connection with the property at the time of the site reconnaissance. The scope of ESA will include an evaluation of the following:

- Physical setting characteristics of the property through a review of referenced sources such as topographic maps and geologic, soils and hydrologic reports.

- Usage of the property, adjoining properties and surrounding area through a review of reasonably ascertainable historical sources such as land title records, fire insurance maps, city directories, aerial photographs, prior reports and interviews.

- Observations and interviews regarding current property usage and conditions including: the use, treatment, storage, disposal or generation of hazardous substances, petroleum products, hazardous wastes, non-hazardous solid wastes and wastewater.

- Observations and interviews regarding usage of adjoining and surrounding area properties and the likely impact of known or suspected releases of hazardous substances or petroleum products from those properties on the property.

- Information in ASTM-specified environmental agency databases and local environmental records, within the ASTM-specified approximate minimum search distance from the property.

- Preparation of a written report that includes findings, opinions, conclusions and supporting documentation.

Client has directed the following significant additions, deletions or deviations to ASTM Standard Practice E1527-13 for the proposed ESA. Client acceptance of this proposal confirms its awareness that such changes may result in a *data gap* being identified in the report and may impact their ability to use the report to help qualify for *Landowner Liability Protections (LLPs)* under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Unless otherwise indicated below, Client will provide Atlas with the results of Client's review of reasonably ascertainable land title and judicial records for *Environmental Liens* or *Activity and Use Limitations* (AULs) per E1527-13, Section 6.2.

Client Directed Additions, Deletions or Deviations to ASTM Standard Practice E1527-13 ***(only checked items apply)***	
☒	Atlas will review reasonably ascertainable records for Environmental Liens or AULs
☐	Atlas will not review of land title or judicial records for Environmental Liens or AULs
☐	Include Client or other scope of work guidance document entitled:
☐	Other:

APPENDIX K

LABORATORY REPORTS

No documents have been associated with this appendix.

APPENDIX L

OTHER SUPPORTING DOCUMENTATION

ICF KAISER ENGINEERS

APR 26 1993

April 23, 1993

ICF KAISER ENGINEERS, INC.
11808 NORTHUP WAY, SUITE 104
BELLEVUE, WASHINGTON 98005
206/889-1000 FAX 206/889-1010

Mr. Steve Hill
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Dear Mr. Hill:

Per your request, Anacomp, Inc. is preparing four Monitoring Reports for the facility located at 5100 Patrick Henry Drive, Santa Clara, California to determine whether there is any change in the conditions at the site. The attached document is the fourth of these reports summarizing groundwater monitoring data for the 1st quarter of 1993. ICF Kaiser Engineers, Inc. is submitting this report on behalf of Anacomp, Inc.

RWQCB requested that Anacomp, Inc. conduct quarterly monitoring of this facility for one year after trichloroethylene (TCE) was detected in a grab sample of groundwater at a concentration of 100 ppb in November 1991. Since then, Anacomp has installed eight groundwater monitoring wells to characterize further the quality of groundwater throughout the facility at 5100 Patrick Henry Drive.

Previous studies have concluded that the area where residual TCE was detected is small and well within the perimeter of the property. The main objective of the quarterly monitoring is to evaluate that conclusion, and to provide verification to the RWQCB.

Groundwater samples collected during the 1st quarter of 1993 contained no TCE or cis-1,2-dichloroethene. Samples from two wells contained Freon 113 at concentrations of 45 ppb and 19 ppb. Both concentrations are comparable to the previous quarter (42 ppb and 19 ppb), and far below the MCL for this substance (1,200 ppb). No other analytes were detected.

If you have any questions regarding this report, please call Chris van der Woerd at (510) 889-0324.

Sincerely,

for James F. Shellooe, P.E.
Project Manager

JFS/KVBJ:csr

Attachment

cc: Lee Esquibel, Santa Clara County Health Department
Pamela Foley, W.F. Batton & Co., Inc.
Greg Greggeary, Coherent
Howard Hatayama, California Department of Health Services
Tom Iwamura, Santa Clara Valley Water District
David Parker, City of Santa Clara
Chris van der Woerd, Anacomp, Inc.
Eric Whinston, Anacomp, Inc.

ICF KAISER ENGINEERS

APR 26 1993

April 23, 1993

ICF Kaiser Engineers, Inc.
11808 Northup Way, Suite 104
Bellevue, Washington 98005
206/889-1000 Fax 206/889-1010

Mr. Steve Hill
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Dear Mr. Hill:

Attached is the Monitoring Report for the 1st Quarter of 1993 for the facilities located at 5200 and 5440 Patrick Henry Drive, Santa Clara, California. ICF Kaiser Engineers, Inc. is submitting this report on behalf of Anacomp, Inc.

Manufacturing activities at 5440 Patrick Henry Drive ended on February 15, 1991. Since the groundwater discharge was tied to the manufacturing activities described in the attached report, Anacomp had to stop the extraction and treatment program when manufacturing ceased. The 1st quarter analytical results continue to indicate that methyl ethyl ketone (MEK) and acetone are well below the Final Remediation Action Plan (FRAP) clean-up goals at the 5440 facility. In fact, in this quarter neither compound was detected in any samples. The 1st quarter results also indicate that Freon 113, the only contaminant detected at the 5200 facility, remains well below the Maximum Contaminant Level for primary drinking water.

Anacomp discontinued analysis of diethylene glycol dimethyl ether (DGDE) in the 4th quarter of 1992 because it was not detected during the previous two quarters. Anacomp voluntarily began analyzing samples for extractable petroleum hydrocarbons in the diesel range in the 2nd quarter of 1992. Extractable petroleum hydrocarbons in the diesel range were detected in 5 of the 6 samples analyzed and the sixth sample contained kerosene range petroleum hydrocarbons. The concentrations, which range from 0.06 to 0.710 ppm are below the 1 ppm clean-up goal for diesel in the FRAP. Anacomp discontinued extractable petroleum hydrocarbon analysis in the 5200 facility monitoring wells because there were no detections over two consecutive quarters in 1992.

If you have any questions regarding this report, please call Chris van der Woerd at (510) 889-0324.

Sincerely,

James F. Shellooe, P.E.
Project Manager

JFS/KVBJ:csr

Attachment

cc: Lee Esquibel, Santa Clara County Health Department
Pamela Foley, W.F. Batton & Co., Inc.
Greg Greggeary, Coherent
Howard Hatayama, California Department of Health Services
Tom Iwamura, Santa Clara Valley Water District
David Parker, City of Santa Clara
Chris van der Woerd, Anacomp, Inc.
Eric Whinston, Anacomp, Inc.

ANACOMP\0517400304/1QTR9352.LTR

2189-8118

Anacomp, Inc.

(Formerly Xidex Corporation)

Monitoring Report
1st Quarter 1993

5200 Patrick Henry Drive
5440 Patrick Henry Drive
Santa Clara, California

Prepared under the direction of:

James F. Shellooe, P.E.
Registered Civil Engineer
State of California No. 32424
Expires 12/31/96

4/93

4th of 4 SMRs
(review and mitk closure
letter if appropriate)

Anaco

(Formerly Xid ~~update file follows~~

In review - # 0701

Monitoring Report
1st Quarter 1993

5100 Patrick Henry Drive
Santa Clara, California

Anacomp, Inc.

(Formerly Xidex Corporation)

Monitoring Report
1st Quarter 1993

5100 Patrick Henry Drive
Santa Clara, California

Anacomp, Inc.

(Formerly Xidex Corporation)

Monitoring Report
1st Quarter 1993

5100 Patrick Henry Drive
Santa Clara, California

Prepared under the direction of:

James F. Shellooe, P.E.
Registered Civil Engineer
State of California No. 32424
Expires 12/31/96

TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

1.0 INTRODUCTION 1

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS 2

3.0 GROUNDWATER SAMPLING AND ANALYSIS 3
- 3.1 Quality Assurance - Laboratory 4
- 3.2 Quality Assurance - Field 4
- 3.3 Analytical Results - 5100 Patrick Henry Drive 4
- 3.4 Groundwater Elevations 5

LIST OF TABLES

1. Final Remedial Action Plan Contaminant Clean-up Goals for 5200 and 5440 Patrick Henry Drive (September 1989)
2. 1st Quarter 1993 Chemical Analysis Summary
3. Groundwater Monitoring Data Concentrations of TCE and cis-1,2-DCE (ppm)
4. Groundwater Monitoring Data Concentrations of Freon 113 (ppm)
5. Groundwater Elevation Data - March 15, 1993

LIST OF FIGURES

1. Groundwater "Grab" Sample Locations - December 1991
2. Monitoring Well Locations - 5100 Patrick Henry Drive
3. Freon 113 Concentrations - 5100 Patrick Henry Drive
4. TCE and cis-1,2-DCE Concentrations - 5100 Patrick Henry Drive
5. Historical Freon 113 Concentrations for Wells MW-5 and MW-8
6. Groundwater Elevation and Contours - 5100 Patrick Henry Drive

APPENDICES

A. Groundwater Sampling Report
B. Groundwater Analytical Results

QUARTERLY REPORT FOR SAMPLING ACTIVITIES FOR THE ANACOMP, INC. FACILITY LOCATED AT 5100 PATRICK HENRY DRIVE SANTA CLARA, CALIFORNIA

1ST QUARTER 1993

EXECUTIVE SUMMARY

In response to a request from the California Regional Water Quality Control Board (RWQCB) for monitoring of groundwater quality, Anacomp, Inc. conducted the 1st Quarter 1993 groundwater sampling activities at the Anacomp, Inc. property located at 5100 Patrick Henry Drive, Santa Clara, California. Groundwater samples and water-level measurements were taken on March 15 and 16, 1993 from seven of the eight monitoring wells; MW-4 was not sampled this quarter because construction activities prevented access. The samples were analyzed chemically for volatile organic constituents using EPA Method 8240. Trichloroethylene (TCE) is the contaminant that prompted the San Francisco Bay Region of the RWQCB to request quarterly sampling for one year. TCE was not detected above the reporting limit of 5 parts per billion (ppb) in any of the wells this quarter. Freon 113 was detected in two wells this quarter, MW-5 and MW-8. Freon 113 was detected in the same wells in the previous quarter. The concentrations detected, 26 ppb in MW-5, and 19 ppb in MW-8, are far below the maximum contaminant level (MCL) of 1,200 ppb under the California Drinking Water Standards. No other analyte was detected this quarter. The data met quality assurance requirements in accordance with EPA acceptance criteria.

1.0 INTRODUCTION

This report is submitted in response to a request by the San Francisco Bay Region of the RWQCB to conduct quarterly sampling for one year.

RWQCB requested that Anacomp, Inc. conduct quarterly monitoring of this facility for one year after TCE was detected in a grab sample of groundwater at a concentration of 100 ppb in November 1991. Since then, Anacomp has installed eight groundwater monitoring wells to characterize further the quality of groundwater throughout the facility at 5100 Patrick Henry Drive.

Previous studies have concluded that the area where residual TCE was detected is small and is well within the perimeter of the property. The main objective of the quarterly monitoring is to evaluate that conclusion, and to report the evaluation and substantiating results to the RWQCB.

This report covers monitoring activities conducted from January 1, 1993 through March 31, 1993 for the Anacomp sites located at 5100 Patrick Henry Drive, Santa Clara, California.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS

Several studies have been completed documenting conditions at the Anacomp facility at 5100 Patrick Henry Drive. The first was a Phase I environmental audit report written by CHASE of Saratoga, California on November 4, 1991. That report recommended further investigation of various areas of the property, particularly an area within the site building where floor tiles were discolored. (It was later determined by Anacomp that roof leakage caused the discoloration.)

Wahler Associates conducted a second subsurface investigation in November 1991. The investigation was expanded in December 1991. Wahler Associates prepared two reports: Continued Subsurface Investigation of 5100 Patrick Henry Drive, Santa Clara, California, December 1991; and Subsurface Investigation, 5100 Patrick Henry Drive, Santa Clara, California, February 1992. Groundwater samples were taken from five additional hand-augured holes for analysis in the Continued Subsurface Investigation. Wahler Associates reported trace concentrations of Freon 113, Freon 11, cis-1,2-dichloroethene (cis-1,2-DCE), TCE, and chloroform from the hand-augured holes. The groundwater sample from hole HA-2 contained TCE at a concentration of 100 ppb, and cis-1,2-DCE at a concentration of 22 ppb. Both values exceed the MCLs for the respective chemical constituents. The location of HA-2 is shown on Figure 1.

The conclusions of the Subsurface Investigation, 5100 Patrick Henry Drive, Santa Clara, California, February 1992 are that:

1. Groundwater is tidally influenced by Calabazas Creek, and volatile organic compounds detected in MW-5 may come from the creek, or from a source west of the creek;

2. Groundwater flows to the northeast; and

3. "The lateral extent of shallow groundwater contamination by Volatile Organic Chemicals (VOCs) has not been clearly defined at the ROLM facility. VOCs were not detected at monitoring wells MW-1, MW-2, and MW-3, at the boundary between the ROLM facility and the site. However, preferential pathways for groundwater migration may exist between these wells, and the ROLM facility cannot be ruled out as a potential source of VOCs at the site."

The report written by Wahler Associates in June 1992 (Installation and Sampling of Monitoring Wells, June 1992) provides details of the installation and sampling of two additional monitoring wells, MW-7 and MW-8. The conclusions of this report relating to groundwater are that the contaminants detected at HA-2 do not appear to have migrated off site and the concentration of Freon 113 detected in MW-8 is well below the MCL.

Table 1 presents the established clean-up levels proposed in the Final Remedial Action Plan (FRAP) for the nearby Anacomp facilities at 5200 and 5400 Patrick Henry Drive.

3.0 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater samples were collected from monitoring wells located at 5100 Patrick Henry Drive on March 16, 1993. Personnel from Blaine Tech Services of San Jose, California conducted the groundwater sampling. Samples were collected from wells MW-1, MW-2, MW-3, MW-5, MW-6, MW-7, and MW-8 at the 5100 Patrick Henry Drive location. MW-4 was not sampled because construction activities prevented access. Figure 2 shows well locations of the 5100 Patrick Henry Drive facility. Appendix A contains a sampling activities report by Blaine Tech Services including summaries of field notes, purge volumes, sampling protocols, field and laboratory testing parameters, and chain of custody documents.

All samples were analyzed by Curtis and Tompkins, Ltd. of Berkeley, California. The samples were analyzed by EPA SW-846 Volatile Organics Method 8240. The results of these analyses are summarized in Table 2. Appendix B contains the complete analytical results from Curtis and Tompkins, Ltd. showing all analytes and the reporting limits.

Laboratory values reported in the units µg/L are equivalent to ppb and values reported in mg/L are equivalent to parts per million (ppm) for the purpose of comparison with the contaminant clean-up goals.

3.1 Quality Assurance - Laboratory

All surrogate recoveries for all analyses were within their respective EPA Method 8240 acceptance ranges specified in EPA SW-846, November 1986.

Samples were analyzed within the EPA Method 8240 holding times specified in SW-846.

Matrix spike and matrix spike duplicate sample results were within the EPA Method 8240 performance limits (percent recoveries and relative percent difference). Three laboratory method blank samples were analyzed. No analytes were detected at any level in any of the blanks.

3.2 Quality Assurance - Field

Field sampling activities, including well purging, sampling, and chain of custody documentation, were conducted in accordance with the standard practices presented in the Groundwater Sampling Report (Appendix A). In addition, field quality assurance generally conformed to the relevant procedures contained in the RWQCB Leaking Underground Fuel Tank Manual. Quality assurance samples collected during field activities included a equipment blank.

The equipment blank collected during sampling activities was designated MW2EB. No analytes were detected.

No split sample was taken during this round of sampling at the 5100 Patrick Henry Drive site.

3.3 Analytical Results - 5100 Patrick Henry Drive

Table 2 summarizes the analytical results for all of the monitoring wells sampled this quarter. Samples were analyzed for volatile organic constituents using EPA Method 8240. Table 3 is a summary of historical concentrations of TCE and 1,2-DCE detected in site monitoring wells. Neither analyte was detected in any of the samples in the first quarter of 1993. Figure 3 is a site map showing the locations of monitoring wells and corresponding concentrations of TCE and 1,2-DCE.

Freon 113 was the only analyte detected this quarter. It was detected in two of the eight wells, MW-5 at 26 ppb, and MW-8 at 19 ppb. These results are similar to the results of the last quarter of 1992. That quarter the only analyte detected

was Freon 113; and it was detected in the same two monitoring wells, MW-5 at 45 ppb and MW-8 at 19 ppb. Freon 113 concentrations continue to fall well below the MCL for the analyte in drinking water of 1.2 ppm (1,200 ppb) under the California drinking water quality standards (California Code of Regulations, Title 22, Article 5.5, 64444.5). Figure 4 is a site map showing the location of monitoring wells and Freon 113 concentrations. Table 4 is a summary of historical concentrations of Freon 113 detected in site monitoring wells. Figure 5 is a graphical summary of Freon 113 concentrations in MW-5 and MW-8 compared to the MCL.

Laboratory data sheets for all samples are included as Appendix B in this report.

3.4 Groundwater Elevations

Depth to water and groundwater elevation data collected during this quarterly monitoring event are presented in Table 5. Using the information provided in Table 5, Figure 6 presents the monitoring well locations and the associated groundwater elevations and contours on March 15, 1993 for the 5100 Patrick Henry Drive location. Groundwater flows to the northeast on a gradient of approximately 0.01 ft/ft.

TABLES

Table 1. Final Remedial Action Plan Contaminant Clean-up Goals for 5200 and 5440 Patrick Henry Drive (September 1989)

CONTAMINANT	CLEAN-UP GOAL (ppm)
MEK	1.8
Acetone	3.5
Cyclohexanone	17.5
Diglyme	4,900
Diesel	1.0

NOTES

MEK - methylethyl ketone, or 2-butanone

Table 2. 1st Quarter 1993 Chemical Analysis Summary* (ppb)

WELL	FREON 113[1]
MW-5	26
MW-8	19

* The analytes shown are the only constituents present, according to the analysis of samples taken March 16, 1993. The MCL for Freon 113 is 1,200 ppb.

1 Concentrations in green fall below the clean-up goal. Concentrations in red exceed the clean-up goal.

Table 3. Groundwater Monitoring Data
Concentrations of TCE and cis-1,2-DCE (ppm)

SAMPLING DATE	MONITORING WELLS SAMPLED							
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8
TCE								
January 1992	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**	**
May 1992	NS*	NS	NS	NS	NS	NS	<0.005	<0.005
June 1992	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
October 1992	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
December 1992	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
March 1993	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-DCE								
January 1992	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	**	**
May 1992	NS	NS	NS	NS	NS	NS	<0.005	<0.005
June 1992	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
October 1992	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
December 1992	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
March 1993	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

* NS - Not sampled. Wahler Associates sampled MW-1 through MW-6 between January 20 and 22, 1992, and sampled MW-7 and MW-8 on May 11, 1992.

** Not constructed until May 1992.

Table 4. Groundwater Monitoring Data
Concentrations of Freon 113 (ppm)

	MONITORING WELLS SAMPLED[1]							
SAMPLING DATE	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8
January 1992	<0.005	<0.005	<0.005	<0.005	<0.018	<0.005	**	**
May 1992	NS*	NS	NS	NS	NS		<0.005	0.084
June 1992	<0.005	<0.005	<0.005	<0.005	0.042	<0.005	<0.005	0.080
October 1992	<0.005	<0.005	<0.005	<0.005	0.035	<0.005	<0.005	0.029
December 1992	<0.005	<0.005	<0.005	<0.005	0.045	<0.005	<0.005	0.019
March 1993	<0.005	<0.005	<0.005	<0.005	0.026	<0.005	<0.005	0.019

* NS - Not sampled. Wahler Associates sampled MW-1 through MW-6 between January 20 and 22, 1992, and sampled MW-7 and MW-8 on May 11, 1992.

** Not constructed until May 1992.

1 Concentrations in green are detections that fall below the clean-up goal. Concentrations in red are detections that exceed the clean-up goal.

Table 5. Groundwater Elevation Data - March 15, 1993

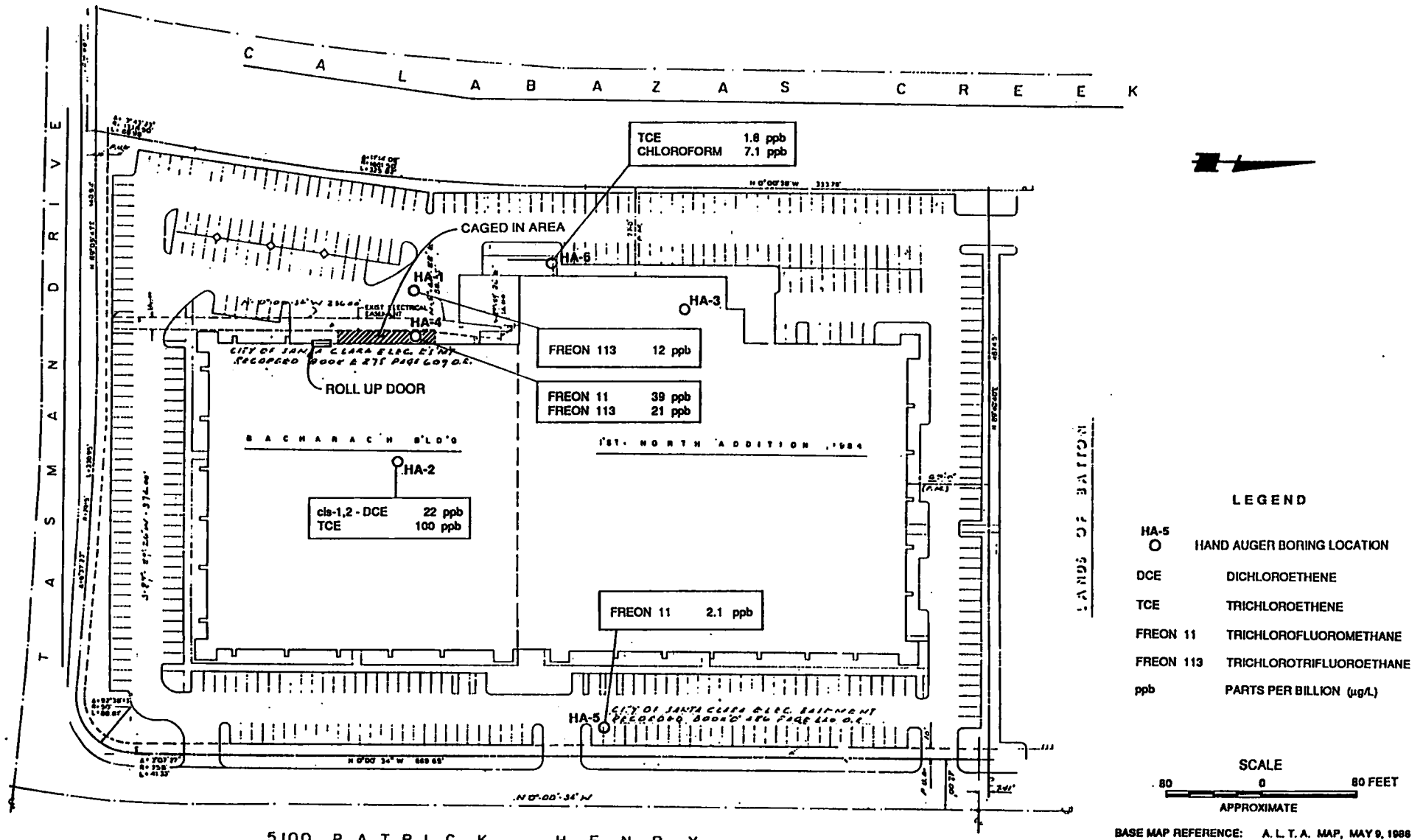
WELL NO.	CASING ELEVATION (feet)	DEPTH TO WATER (feet)	ELEVATION (feet)*
MW-1	7.27	6.08	1.19
MW-2	7.26	5.70	1.56
MW-3	7.74	5.53	2.21
MW-4	8.76	**	**
MW-5	7.04	5.30	1.74
MW-6	6.83	6.15	0.68
MW-7	7.76	7.04	0.72
MW-8	7.20	7.13	0.07

* According to the City of Santa Clara Datum D-7

** Well MW-4 was not measured due to ongoing construction activities in the vicinity of the well.

FIGURES

Figure 1
Groundwater "Grab" Sample Locations - December 1991



LEGEND

HA-5 ○	HAND AUGER BORING LOCATION
DCE	DICHLOROETHENE
TCE	TRICHLOROETHENE
FREON 11	TRICHLOROFLUOROMETHANE
FREON 113	TRICHLOROTRIFLUOROETHANE
ppb	PARTS PER BILLION (µg/L)

SCALE
80 0 80 FEET
APPROXIMATE

BASE MAP REFERENCE: A. L. T. A. MAP, MAY 9, 1986

Wahler Associates	5100 PATRICK HENRY DRIVE SANTA CLARA, CALIFORNIA	GROUNDWATER "GRAB" SAMPLE LOCATIONS DECEMBER 1991	
PALO ALTO • CALIFORNIA		PROJECT NO.	DATE	FIGURE NO.
		ANC-102H	FEBRUARY 1992	2

Figure 2
Monitoring Well Locations – 5100 Patrick Henry Drive

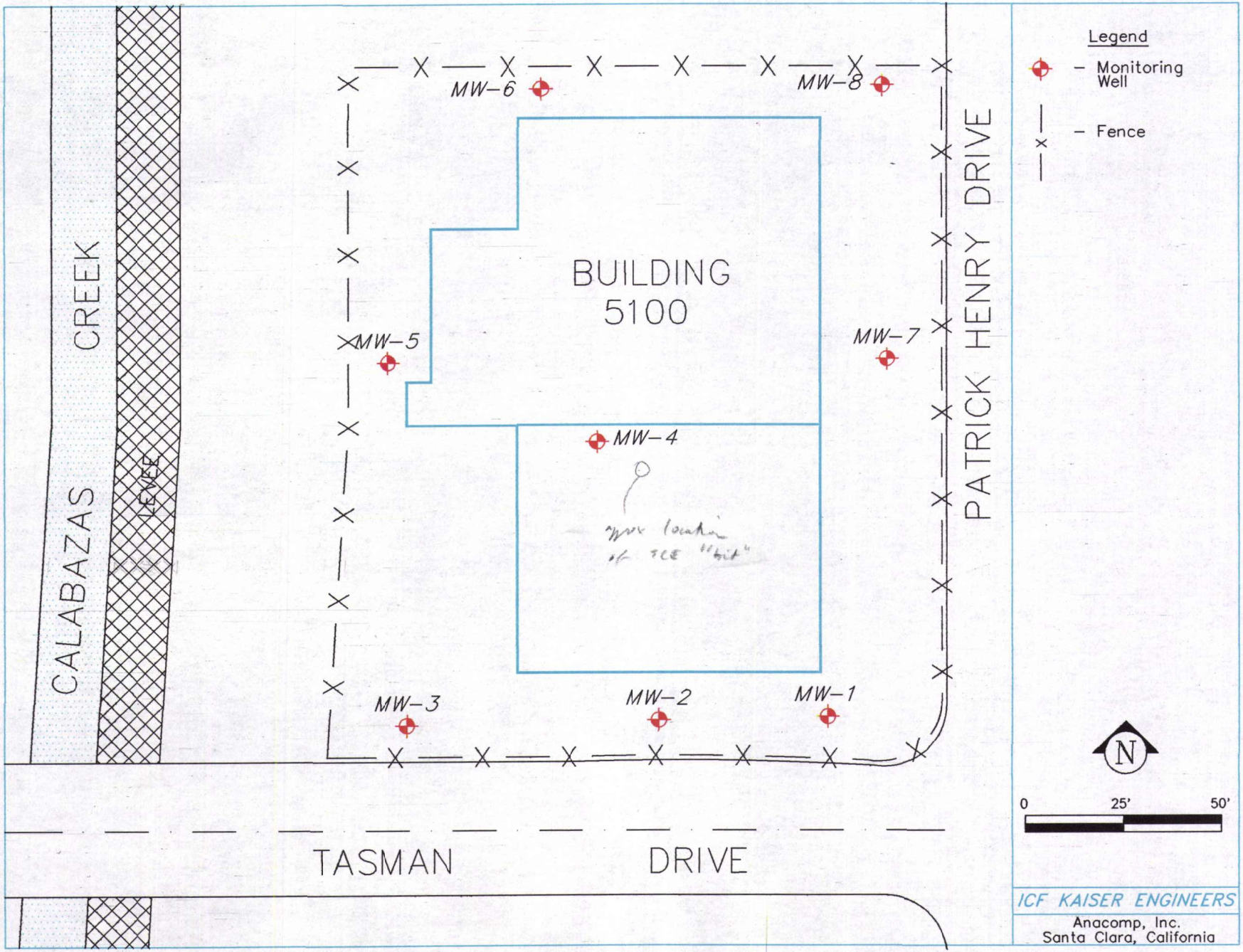


Figure 3
Freon 113 Concentrations – 5100 Patrick Henry Drive

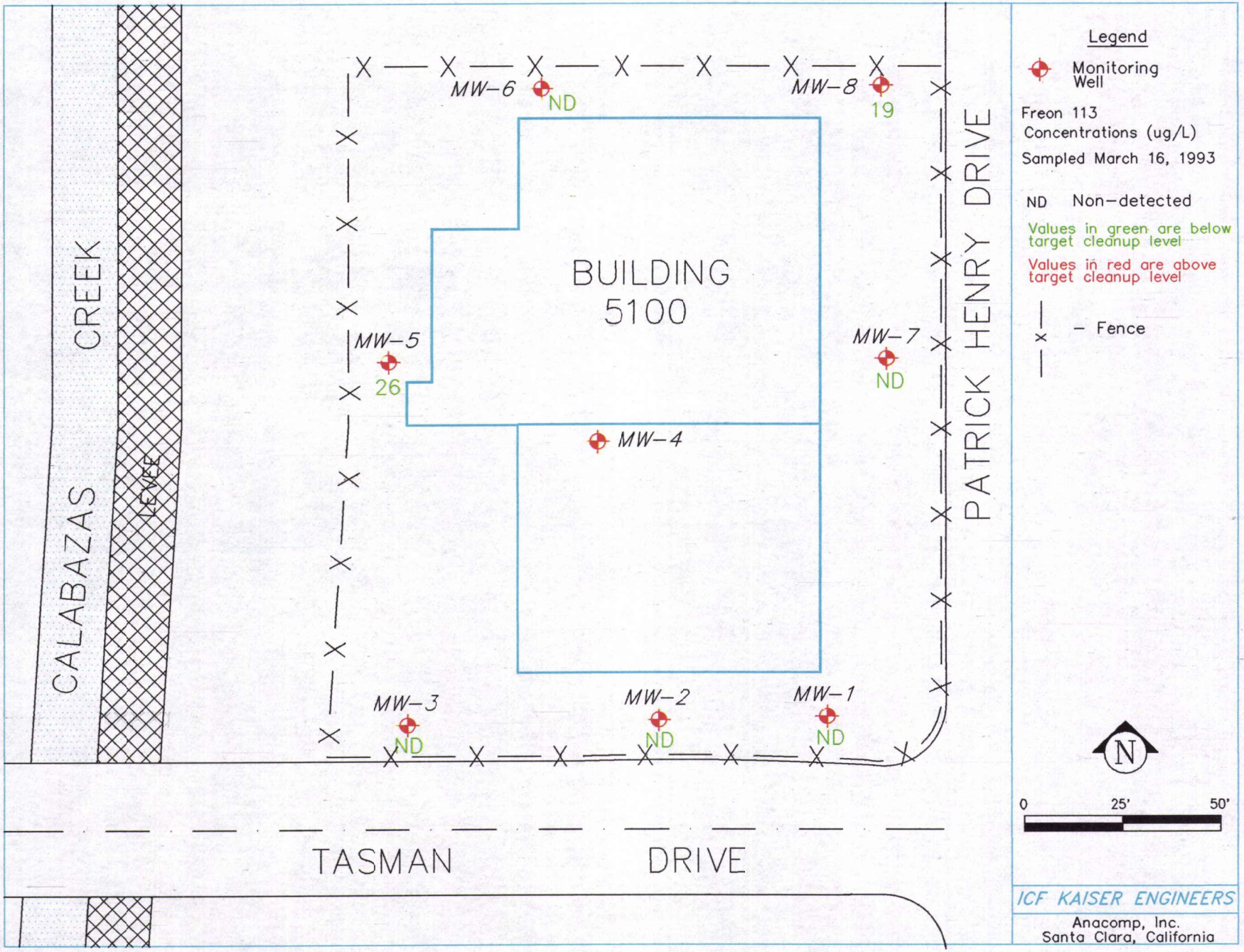


Figure 4
TCE and cis-1,2-DCE Concentrations - 5100 Patrick Henry Drive

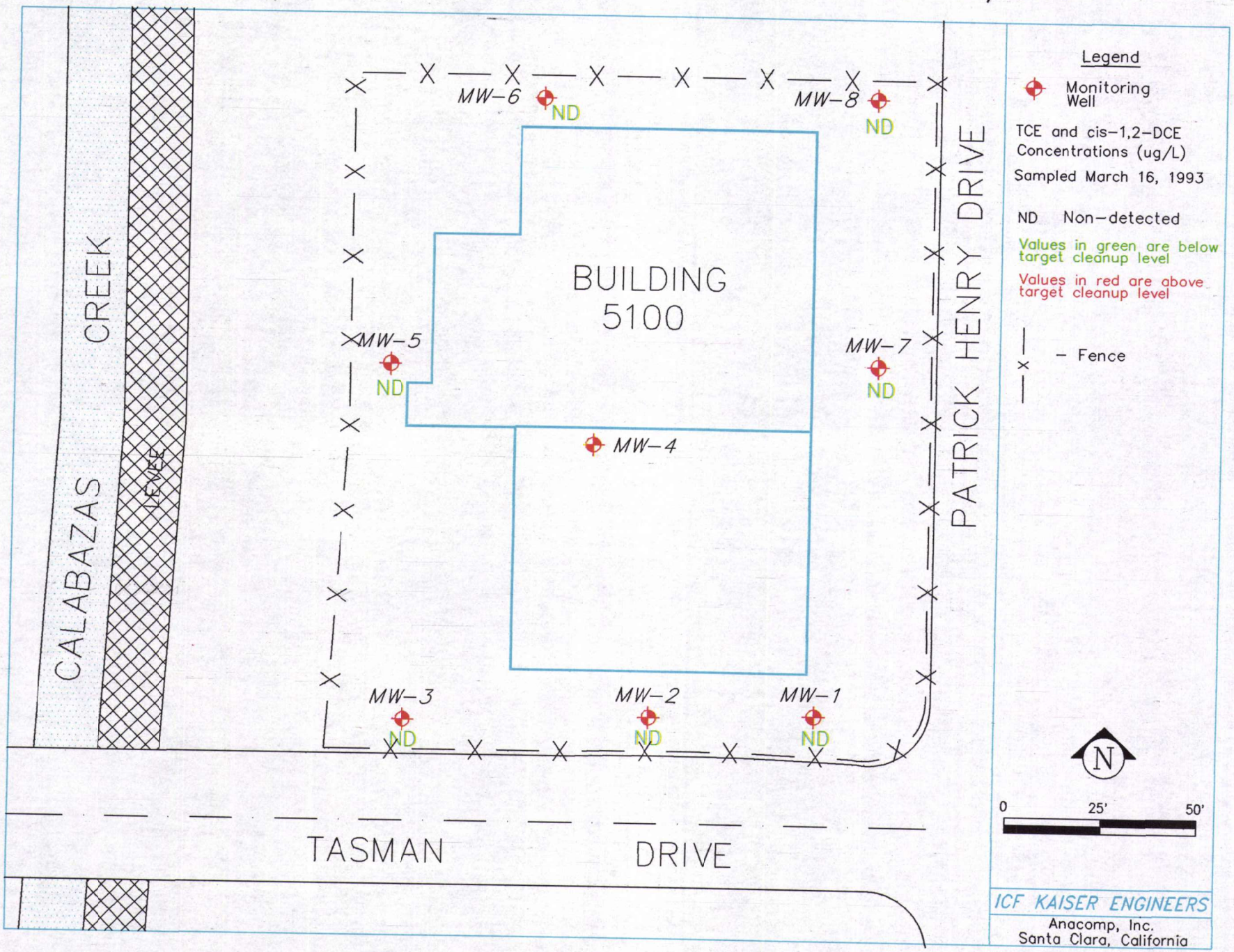


Figure 5

Historical Freon 113 Concentrations

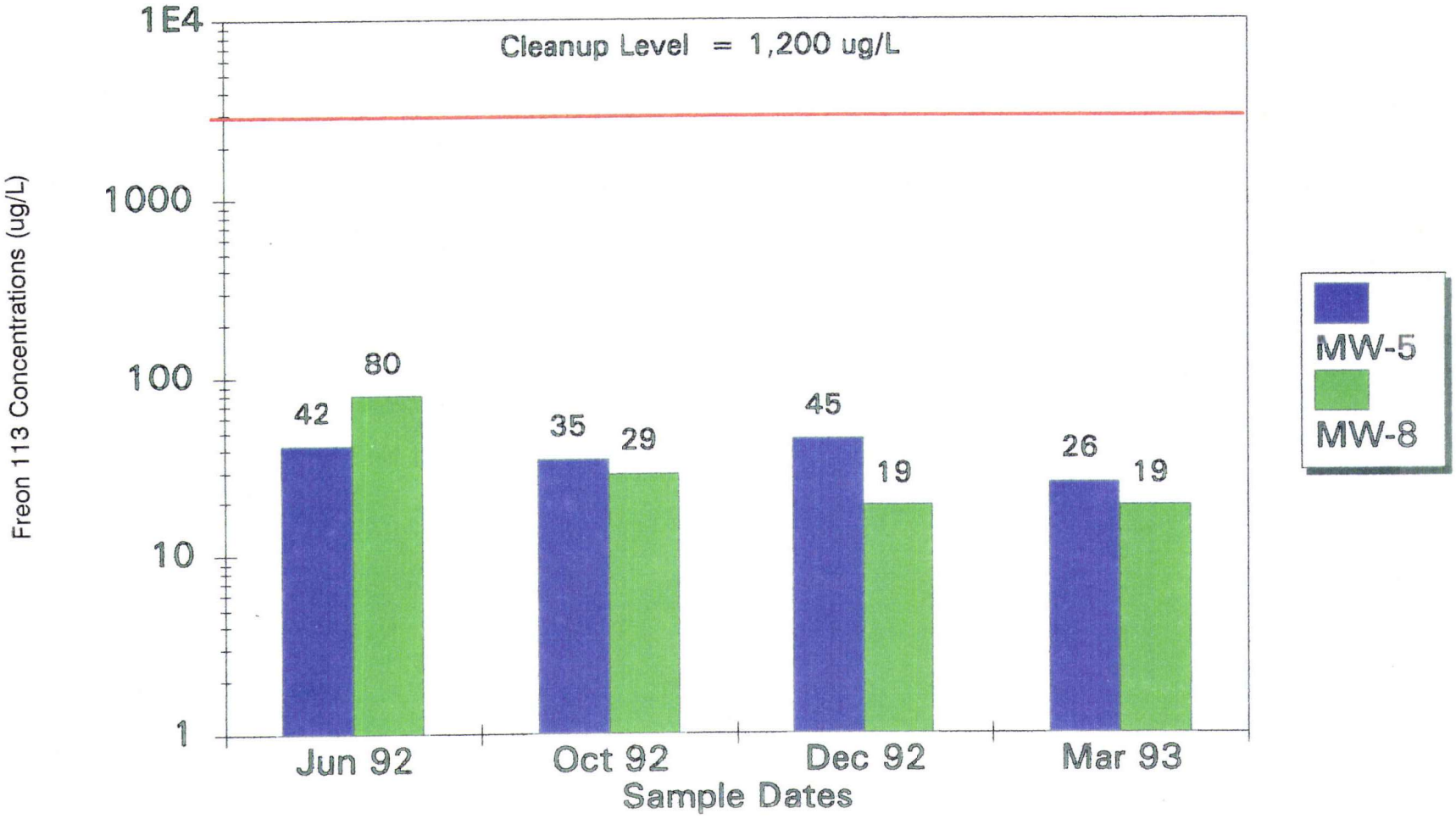
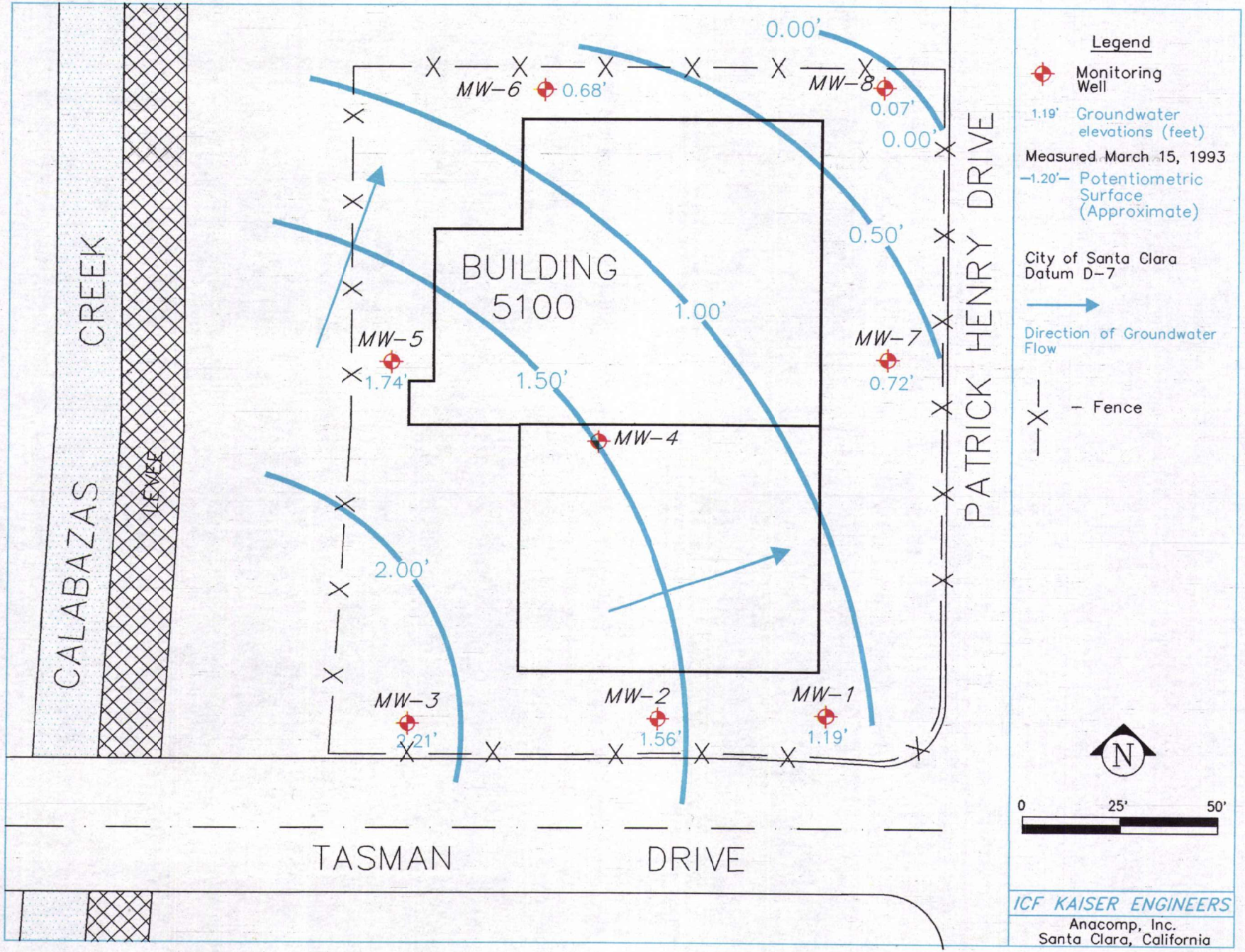


Figure 6
Groundwater Elevation and Contours – 5100 Patrick Henry Drive



APPENDIX A

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

March 26, 1993

Anacomp, Inc.
22351 City Center Drive
Suite 203
Hayward, CA 94541

Attention: Chris van der Woerd

SITE:
5100 Patrick Henry Drive
Santa Clara, California

PROJECT:
Water Level Measurements

DATE:
March 15, 1993

Water Level Report 930315-T-1.WL

Personnel from our office were present at the site on Monday, March 15, 1993 to obtain water levels and conduct a sheen and odor check. Please note that we are reporting only the water levels, not elevations.

Well designation	Well diameter	Depth to surface	Well depth	Sheen/Odor	Measured to: Top of Pipe or Grade
MW-1	2"	6.08'	19.47'	None	PVC
MW-2	2"	5.70'	18.10'	None	PVC
MW-3	2"	5.53'	17.84'	None	PVC
MW-4 *					
MW-5	2"	5.30'	18.00'	None	PVC
MW-6	2"	6.15'	17.86'	None	PVC
MW-7	2"	7.04'	18.19'	None	PVC
MW-8	2"	7.13'	18.04'	None	PVC

* Well MW-4 was not gauged due to construction.

James Blaine on:
Richard C. Blaine

RCB/kkl

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

March 26, 1993

Anacomp, Inc.
22351 City Center Drive
Suite 203
Hayward, CA 94541

Attn: Chris van der Woerd

SITE:
5100 Patrick Henry Drive
Santa Clara, California

SAMPLING EVENT:
Evacuate and sample eight wells

DATE:
March 15, 1993

GROUNDWATER SAMPLING REPORT 930315-T-1

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. does not participate in the interpretation of analytical results or become involved with the marketing or installation of remedial systems.

This report deals with the groundwater well sampling performed by our firm in response to your request. Data collected in the course of our work at the site is presented in the TABLE OF WELL MONITORING DATA. This data was collected during our inspection, well evacuation, and sample collection. Measurements include the total depth of the well and depth to water. Water surfaces were further inspected for the presence of immiscibles. A series of electrical conductivity, pH, and temperature readings were obtained during well evacuation and at the time of sample collection. Recharge performance can be evaluated by comparing the anticipated three, four, or five case volume evacuation gallonage with the volume which could actually be purged.

TABLE OF WELL MONITORING DATA

Well I.D.	MW-1			MW-2			MW-3			MW-4
Date Sampled	03/15/93			03/15/93			03/15/93			03/15/93
Well Diameter (in.)	2			2			2			2
Total Well Depth (ft.)	19.47			18.10			17.84			--
Depth To Water (ft.)	6.08			5.70			5.53			--
Free Product (in.)	NONE			NONE			NONE			NONE
Reason If Not Sampled	--			--			--			NOT SAMPLED DUE TO CONSTRUCTION
1 Case Volume (gal.)	2.0			2.0			2.0			
Did Well Dewater?	NO			NO			NO			
Gallons Actually Evacuated	6.0			6.0			6.0			
Purging Device	BAILER			BAILER			BAILER			
Sampling Device	BAILER			BAILER			BAILER			
Time	11:34	11:40	11:48	10:48	10:54	11:00	09:55	09:59	10:02	
Temperature (Fahrenheit)	62.4	62.4	62.4	63.1	62.6	63.2	58.4	59.8	59.2	
pH	7.2	7.2	7.2	7.5	7.4	7.4	7.3	7.4	7.4	
Conductivity (micromhos/cm)	2400	2400	2400	1800	1900	1900	2800	2300	2300	
BTS Chain of Custody	930315-T-1			930315-T-1			930315-T-1			
BTS Sample I.D.	MW-1			MW-2			MW-3			
DHS HMTL Laboratory	CURTIS & TOMPKINS			CURTIS & TOMPKINS			CURTIS & TOMPKINS			
Analysis	EPA 8240			EPA 8240			EPA 8240			

TABLE OF WELL MONITORING DATA

Well I.D.	MW-5			MW-6			MW-7			MW-8		
Date Sampled	03/15/93			03/15/93			03/15/93			03/15/93		
Well Diameter (in.)	2			2			2			2		
Total Well Depth (ft.)	18.00			17.86			18.19			18.04		
Depth To Water (ft.)	5.30			6.15			7.04			7.13		
Free Product (in.)	NONE			NONE			NONE			NONE		
Reason If Not Sampled	--			--			--			--		
1 Case Volume (gal.)	2.0			2.0			2.0			2.0		
Did Well Dewater?	NO			NO			NO			NO		
Gallons Actually Evacuated	6.0			6.0			6.0			6.0		
Purging Device	BAILER			BAILER			BAILER			BAILER		
Sampling Device	BAILER			BAILER			BAILER			BAILER		
Time	09:11	09:16	09:21	13:50	13:55	13:58	12:20	12:28	12:34	12:56	13:03	13:11
Temperature (Fahrenheit)	63.0	63.0	63.0	65.4	65.4	65.4	67.0	67.0	67.0	67.2	67.2	67.2
pH	7.6	7.4	7.3	7.3	7.2	7.2	7.3	7.3	7.3	7.3	7.2	7.2
Conductivity (micromhos/cm)	3200	3200	3200	3200	2900	2800	2200	2100	2100	5400	5200	5200
BTS Chain of Custody	930315-T-1			930315-T-1			930315-T-1			930315-T-1		
BTS Sample I.D.	MW-5			MW-6			MW-7			MW-8		
DHS HMTL Laboratory	CURTIS & TOMPKINS			CURTIS & TOMPKINS			CURTIS & TOMPKINS			CURTIS & TOMPKINS		
Analysis	EPA 8240			EPA 8240			EPA 8240			EPA 8240		

EQUIPMENT

Selection of Sampling Equipment

The determination of what apparatus is to be used on particular wells may be made by the property owner or the professional consultant directing the performance of the monitoring on the property owner's behalf. If no specific requirement is made known to us, our personnel will select equipment that will accomplish the work in the most efficient manner. Our personnel are equipped with a variety of sampling devices that include USGS/Middleburg pumps, down hole electric submersible pumps, air lift pumps, suction pumps, and bailers made of both Teflon and stainless steel.

Evacuation and Sampling Equipment Mechanics

When equipment is not selected by the client, the apparatus for well evacuation and sample collection is selected by our field personnel based on an evaluation of the field conditions. Four types of devices are commonly available for employment:

Bailers
High Volume Suction Pumps
Electric Submersible Pumps
USGS/Middleburg positive displacement sampling pumps

Bailers were selected for the collection of samples at this site.

Bailers: A bailer, in its simplest form, is a hollow tube which has been fitted with a check valve at the lower end. The device can be lowered into a well by means of a cord. When the bailer enters the water, the check valve opens and liquid flows into the interior of the bailer. The bottom check valve prevents water from escaping when the bailer is drawn up out of the well.

Two types of bailers are used in groundwater wells at sites where fuel hydrocarbons are of concern. The first type of bailer is made of a clear material such as acrylic plastic and is used to obtain a sample of the surface and the near surface liquids in order to detect the presence of visible or measurable fuel hydrocarbon floating on the surface. The second type of bailer is made of Teflon or stainless steel and is used as an evacuation and/or sampling device.

Bailers are inexpensive and relatively easy to clean. Because they are manually operated, variations in operator technique may have a greater influence than would be found with more automated sampling equipment. Also where fuel is involved, the bailer may include near surface contaminants that are not representative of water deeper in the well.

STANDARD PRACTICES

Evacuation

There are few accepted groundwater sampling protocols that do not call for the evacuation of at least three case volumes of water prior to sample collection, and there are situations where up to ten case volumes of evacuation may be requested. Different professional consultants may specify different levels of evacuation prior to sampling or may request that specific parameters be used to determine when to collect the sample. Our personnel use several standard instruments to record the changes in parameters as the well is evacuated. These instruments are used regardless of whether or not a specific volumetric standard has been called for. As a result, the consultant will always be provided with a record of the pH, EC, and temperature changes that occurred during the evacuation process. Additional information obtained with different types of instruments (such as dissolved oxygen and turbidity meters) can also be collected if requested in advance.

Effluent Materials

Groundwater well sampling protocols call for the evacuation of a sufficient volume of water from the well to insure that the sample is collected from water than has been newly drawn into the well from the surrounding geologic formation. The evacuation of this purge water creates a volume of effluent water which must be contained. Blaine Tech Service, Inc. will place this water in appropriate containers of the client's choice or bring new DOT 17 E drums to the site which are appropriate for the containment of the effluent materials. The determination of how to properly dispose of the effluent water must usually await the results of laboratory analyses of the sample collected from the groundwater well. If that sample does not establish whether or not the effluent water is contaminated, or if effluent from more than one source has been combined in the same container, it may be necessary to conduct additional analyses on the effluent material.

Observations and Measurements

Included in the scope of work are routine measurements and investigative procedures which are intended to determine if the wells are suitable for evacuation and sampling. These include measurement (from the top of the well case) of the total depth of the well; the depth to water, and the thickness of any free product zone (FPZ) encountered. The presence of a significant free product zone may interfere with efforts to collect a water sample that accurately reflects the condition of groundwater lying below the FPZ. This interference is caused by adhesion of petroleum to any device being lowered through the FPZ and the likelihood that minute globules of petroleum may break free of the sampling device and be included in the sample. Accordingly, evaluation of analytical results from wells containing any amount of free petroleum should take into account the possibility that positive results have been skewed higher by such an inclusion. The decision to sample or not sample such wells is left to the discretion of our field personnel at the site and the consultant who establishes sampling guidelines based on the need for current information on groundwater conditions at the site.

Sampling Methodology

Samples were obtained by standardized sampling procedures that follow an evacuation and sample collection protocol. The sampling methodology conforms with State and Regional Water Quality Control Board standards and specifically adheres to EPA requirements for apparatus, sample containers and sample handling as specified in publication SW 846.

Sample Containers

Sample material is collected in specially prepared containers appropriate to the type of analyses intended. Our firm uses new sample containers of the type specified by either EPA or the RWQCB. Often times analytical laboratories wish to supply the sample containers because checks performed on these bottles are often part of a comprehensive laboratory QC program. In cases where the laboratory does not supply sample containers our personnel collect water samples in containers that are appropriate to the type of analytical procedure that the sample is to receive. For example, 40 ml volatile organic analysis vials (VOAs) are used when analysis for gasoline and similar light volatile compounds is intended. These containers are prepared according to EPA SW 846 and will usually contain a small amount of preservative when the analysis is for TPH as gasoline or EPA 602. Vials intended for EPA 601 analysis and EPA 624 GCMS procedures are not preserved. The closure of volatile organic analysis water sample containers is accomplished with an open headed (syringe accessible) plastic screw cap brought down on top of a Teflon faced septum which is used to seal the sample without headspace.

Water samples intended for semivolatile and nonvolatile analysis such as total oil and grease (TOG) and diesel (TPH HBF) are collected and transported in properly prepared new glass liter bottles. Dark amber glass is used in the manufacture of these bottles to reduce any adverse effect on the sample by sunlight. Antimicrobial preservative may be added to the sample liquid if a prolonged holding time is expected prior to analysis. Closure is accomplished with a heavy plastic screw cap.

Groundwater well samples intended for metals analysis are transported in new plastic bottles and preserved with nitric acid. Our personnel can field filter the sample liquid prior to placing it in the sample container if instructed to perform this procedure.

Sample Handling Procedures

Water samples are collected in any of several appropriate devices such as bailers, Coliwasas, Middleburg sampling pumps etc. which are described in detail only as warranted by their employment at a given site. Sample liquid is decanted into new sample containers in a manner which reduces the loss of volatile constituents and follows the applicable EPA procedures for handling volatile organic and semi-volatile compounds. Only two variations from the EPA methods are generally employed. First, preservative is added to the sample container prior to addition of the sample liquid. We first discovered this method in bottles prepared by Stoner Laboratories in 1982. It was subsequently adopted by many northern California laboratories and environmental consulting firms as a practical means of reducing the time that a liquid is allowed to aerate prior to closure of the sampling container. Second, because tests have shown that the preservative readily mixes with sample liquid, glass stirring rods are not used to agitate the sample/preservative mixture.

Groundwater samples that are to receive metals analyses can be filtered prior to being placed in the plastic sample bottles that contain the nitric acid preservative. The filtration process employs new glass containers which are discarded and laboratory quality disposable filtering containers which are also discarded. A frequently used filtering procedure employs a vacuum pump to draw sample material through a 0.45 micron filter. The 0.45 micron pore size is standard, but the amount of filter available varies with the type of package selected. Filters are selected on the basis of the relative turbidity of the water sample. Samples which are relatively clean can be efficiently filtered with relatively inexpensive filters while very turbid water will require a very large filter with a high tolerance for sediments. One of many such filters our firm uses are the Nalgene Type A filters in which an upper and lower receptacle chamber are affixed to the filter. Sample material is poured into the upper chamber and a vacuum pump attached to the lower chamber. Simple actuation of the vacuum pump induces the flow of water through the filter and into the lower chamber. The sample is then decanted into the laboratory container and the filter assembly discarded.

Following collection, samples are promptly placed in an ice chest containing prefrozen blocks of an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

Sample Designations

All sample containers are identified with both a sampling event number and a discrete sample identification number. Please note that the sampling event number is the number that appears on our chain of custody. It is roughly equivalent to a job number, but applies only to work done on a particular day of the year rather than spanning several days as jobs and projects often do.

Chain of Custody

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under our standard chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to Curtis & Tompkins Ltd. in Berkeley, California. Curtis & Tompkins Ltd. is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1459.

Personnel

All Blaine Tech Services, Inc. personnel receive 29 CFR 1910.120(e)(2) training as soon after being hired as is practical. In addition, many of our personnel have additional certifications that include specialized training in level B supplied air apparatus and the supervision of employees working on hazardous materials sites. Employees are not sent to a site unless we are confident they can adhere to any site safety provisions in force at the site and unless we know that they can follow the written provisions of an SSP and the verbal directions of an SSO.

In general, employees sent to a site to perform groundwater well sampling will assume an OSHA level D (wet) environment exists unless otherwise informed. The use of gloves and double glove protocols protects both our employees and the integrity of the samples being collected. Additional protective gear and procedures for higher OSHA levels of protection are available.

Decontamination

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site. Decontamination procedures include complete disassembly of the device to a point where a jet of steam cleaner water can be directed onto all the internal surfaces (this applies to the *inside* of the Teflon bladders of USGS/Middleburg pumps). Teflon conductor tubing is connected to the steam cleaner water outlet and water is run through the interior of the tubing for several minutes. The devices are then reassembled and actuated for a period of time as an additional measure. Blaine Tech Services, Inc. frequently modifies apparatus to allow complete disassembly and proper cleaning.

Reportage

Submission to the Regional Water Quality Control Board and the local implementing agency should include copies of the sampling report, the chain of custody, and the certified analytical report issued by the Hazardous Materials Testing Laboratory. The property owner should attach a cover letter and submit all documents together in a package.

The following addresses have been listed here for your convenience:

Water Quality Control Board
San Francisco Bay Region
2101 Webster Street
5th Floor
Oakland, CA 94612
ATTN: SCC Local Program Coordinator

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Belinda Allen

Santa Clara Fire Department
777 Benton St.
Santa Clara, CA 95050
ATTN: Dr. Larry Monette

Please call if we can be of any further assistance.

Richard C. Blaine

RCB/kkl

attachments: chain of custody

BLAINE TECH SERVICES INC.

1370 TULLY ROAD., SUITE 505
SAN JOSE, CA 95122
(408) 995 5535

CHAIN OF CUSTODY 930315-T1

CLIENT ANACOMP

SITE 5100 PATRICK HENRY
SANTA CLARA CA.

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

LAB CURTIS & TOMPKINS DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ LIA ☐ OTHER ☑ RWQCB REGION 2

SPECIAL INSTRUCTIONS

Bill to ANACOMP, INC.

SAMPLE I.D.	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		C	EPA 8240	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW 1	W	2	40 ml VOAS		✓		ROUTINE		
MW 2	W	2	40 ml VOAS		✓				
MW 3	W	2	40 ml VOAS		✓				
MW 5	W	2	40 ml VOAS		✓				
MW 6	W	2	40 ml VOAS		✓				
MW 7	W	2	40 ml VOAS		✓				
MW 8	W	2	40 ml VOAS		✓				
MW2EB	W	2	40 ml VOAS		✓				

SAMPLING COMPLETED DATE 3/16/93 TIME 9:22

SAMPLING PERFORMED BY SCOTT DURNFORD / FRAN THIE

RESULTS NEEDED NO LATER THAN ROUTINE

	DATE	TIME		DATE	TIME
RELEASED BY Scott Durnford	3/16/93	1500	RECEIVED BY	3/16/93	1500
RELEASED BY	3/18/93	1438	RECEIVED BY Jmy E. Winter	3-18-93	1438
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

APPENDIX B

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 03/18/93
DATE REPORTED: 04/01/93

LABORATORY NUMBER: 110380

CLIENT: ANACOMP

PROJECT ID: 930315-T1

LOCATION: 5100 PATRICK HENRY

RESULTS: SEE ATTACHED

Teresa K. Morrison
Reviewed by

Reviewed by

This report may be reproduced only in its entirety.

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 110380-1
CLIENT: ANACOMP
LOCATION: 5100 PATRICK HENRY
SAMPLE ID: MW1

DATE SAMPLED: 03/16/93
DATE RECEIVED: 03/18/93
DATE ANALYZED: 03/24/93
DATE REPORTED: 04/01/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	105 %
Toluene-d8	100 %
Bromofluorobenzene	102 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 110380-2
CLIENT: ANACOMP
LOCATION: 5100 PATRICK HENRY
SAMPLE ID: MW2

DATE SAMPLED: 03/16/93
DATE RECEIVED: 03/18/93
DATE ANALYZED: 03/24/93
DATE REPORTED: 04/01/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	104 %
Toluene-d8	100 %
Bromofluorobenzene	103 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 110380-3
CLIENT: ANACOMP
LOCATION: 5100 PATRICK HENRY
SAMPLE ID: MW3

DATE SAMPLED: 03/16/93
DATE RECEIVED: 03/18/93
DATE ANALYZED: 03/24/93
DATE REPORTED: 04/01/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	104 %
Toluene-d8	101 %
Bromofluorobenzene	102 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 110380-4
CLIENT: ANACOMP
LOCATION: 5100 PATRICK HENRY
SAMPLE ID: MW5

DATE SAMPLED: 03/16/93
DATE RECEIVED: 03/18/93
DATE ANALYZED: 03/24/93
DATE REPORTED: 04/01/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND		Result ug/L	Reporting Limit (ug/L)
Chloromethane		ND	10
Bromomethane		ND	10
Vinyl chloride		ND	10
Chloroethane		ND	10
Methylene chloride		ND	20
Acetone		ND	20
Carbon disulfide		ND	5
Trichlorofluoromethane		ND	5
1,1-Dichloroethene		ND	5
1,1-Dichloroethane		ND	5
cis-1,2-Dichloroethene		ND	5
trans-1,2-Dichloroethene		ND	5
Chloroform		ND	5
Freon 113		26	5
1,2-Dichloroethane		ND	5
2-Butanone		ND	10
1,1,1-Trichloroethane		ND	5
Carbon tetrachloride		ND	5
Vinyl acetate		ND	10
Bromodichloromethane		ND	5
1,2-Dichloropropane		ND	5
cis-1,3-Dichloropropene		ND	5
Trichloroethene	detected	(3)	5
Dibromochloromethane		ND	5
1,1,2-Trichloroethane		ND	5
Benzene		ND	5
trans-1,3-Dichloropropene		ND	5
Bromoform		ND	5
2-Hexanone		ND	10
4-Methyl-2-pentanone		ND	10
1,1,2,2-Tetrachloroethane		ND	5
Tetrachloroethene		ND	5
Toluene		ND	5
Chlorobenzene		ND	5
Ethyl benzene		ND	5
Styrene		ND	5
Total xylenes		ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	107 %
Toluene-d8	100 %
Bromofluorobenzene	103 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 110380-5
CLIENT: ANACOMP
LOCATION: 5100 PATRICK HENRY
SAMPLE ID: MW6

DATE SAMPLED: 03/16/93
DATE RECEIVED: 03/18/93
DATE ANALYZED: 03/24/93
DATE REPORTED: 04/01/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	105 %
Toluene-d8	100 %
Bromofluorobenzene	103 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 110380-6
CLIENT: ANACOMP
LOCATION: 5100 PATRICK HENRY
SAMPLE ID: MW7

DATE SAMPLED: 03/16/93
DATE RECEIVED: 03/18/93
DATE ANALYZED: 03/25/93
DATE REPORTED: 04/01/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	106 %
Toluene-d8	101 %
Bromofluorobenzene	96 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 110380-7
CLIENT: ANACOMP
LOCATION: 5100 PATRICK HENRY
SAMPLE ID: MW8

DATE SAMPLED: 03/16/93
DATE RECEIVED: 03/18/93
DATE ANALYZED: 03/26/93
DATE REPORTED: 04/01/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	19	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	110 %
Toluene-d8	104 %
Bromofluorobenzene	100 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 110380-8
CLIENT: ANACOMP
LOCATION: 5100 PATRICK HENRY
SAMPLE ID: MW2EB

DATE SAMPLED: 03/16/93
DATE RECEIVED: 03/18/93
DATE ANALYZED: 03/25/93
DATE REPORTED: 04/01/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	106 %
Toluene-d8	101 %
Bromofluorobenzene	97 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 110380-METHOD BLANK
CLIENT: ANACOMP
LOCATION: 5100 PATRICK HENRY

DATE ANALYZED: 03/24/93
DATE REPORTED: 04/01/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	106 %
Toluene-d8	103 %
Bromofluorobenzene	102 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 110380-METHOD BLANK
CLIENT: ANACOMP
LOCATION: 5100 PATRICK HENRY

DATE ANALYZED: 03/25/93
DATE REPORTED: 04/01/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	106 %
Toluene-d8	101 %
Bromofluorobenzene	97 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 110380-METHOD BLANK
CLIENT: ANACOMP
LOCATION: 5100 PATRICK HENRY

DATE ANALYZED: 03/26/93
DATE REPORTED: 04/01/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	112 %
Toluene-d8	103 %
Bromofluorobenzene	110 %

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number:	110380		
Client:	Anacomp, Inc.	Spike file:	acq15
Analysis date:	03/27/93	Spike dup file:	acq16
Sample type:	Water		

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	60.11	120 %	OK	61 - 145
Trichloroethene	58.48	117 %	OK	71 - 120
Benzene	60.30	121 %	OK	76 - 127
Toluene	59.91	120 %	OK	76 - 125
Chlorobenzene	60.40	121 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	53.58	107 %	OK	76 - 114
Toluene-d8	50.20	100 %	OK	88 - 110
Bromofluorobenzene	51.42	103 %	OK	86 - 115

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	57.16	114 %	OK	61 - 145
Trichloroethene	55.68	111 %	OK	71 - 120
Benzene	56.34	113 %	OK	76 - 127
Toluene	56.90	114 %	OK	76 - 125
Chlorobenzene	57.03	114 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	53.02	106 %	OK	76 - 114
Toluene-d8	50.63	101 %	OK	88 - 110
Bromofluorobenzene	51.14	102 %	OK	86 - 115

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	60.11	57.16	5 %	OK	< 22
Trichloroethene	58.48	55.68	5 %	OK	< 24
Benzene	60.30	56.34	7 %	OK	< 21
Toluene	59.91	56.90	5 %	OK	< 21
Chlorobenzene	60.40	57.03	6 %	OK	< 21

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number:	110380		
Client:	Anacomp, Inc.	Spike file:	acn21
Analysis date:	03/24/93	Spike dup file:	acn22
Sample type:	Water		

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	52.92	106 %	OK	61 - 145
Trichloroethene	54.00	108 %	OK	71 - 120
Benzene	53.08	106 %	OK	76 - 127
Toluene	52.58	105 %	OK	76 - 125
Chlorobenzene	56.76	114 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	51.09	102 %	OK	76 - 114
Toluene-d8	48.71	97 %	OK	88 - 110
Bromofluorobenzene	52.63	105 %	OK	86 - 115

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	51.66	103 %	OK	61 - 145
Trichloroethene	52.88	106 %	OK	71 - 120
Benzene	51.48	103 %	OK	76 - 127
Toluene	51.29	103 %	OK	76 - 125
Chlorobenzene	55.25	111 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	52.23	104 %	OK	76 - 114
Toluene-d8	49.87	100 %	OK	88 - 110
Bromofluorobenzene	51.76	104 %	OK	86 - 115

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	52.92	51.66	2 %	OK	< 22
Trichloroethene	54.00	52.88	2 %	OK	< 24
Benzene	53.08	51.48	3 %	OK	< 21
Toluene	52.58	51.29	2 %	OK	< 21
Chlorobenzene	56.76	55.25	3 %	OK	< 21

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number:	110380		
Client:	Anacomp, Inc.	Spike file:	ccp15
Analysis date:	03/26/93	Spike dup file:	ccp16
Sample type:	Water		

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	44.82	90 %	OK	61 - 145
Trichloroethene	47.29	95 %	OK	71 - 120
Benzene	50.64	101 %	OK	76 - 127
Toluene	50.01	100 %	OK	76 - 125
Chlorobenzene	52.14	104 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	51.29	103 %	OK	76 - 114
Toluene-d8	48.96	98 %	OK	88 - 110
Bromofluorobenzene	49.22	98 %	OK	86 - 115

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	47.73	95 %	OK	61 - 145
Trichloroethene	48.36	97 %	OK	71 - 120
Benzene	50.00	100 %	OK	76 - 127
Toluene	51.13	102 %	OK	76 - 125
Chlorobenzene	52.84	106 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	51.86	104 %	OK	76 - 114
Toluene-d8	49.81	100 %	OK	88 - 110
Bromofluorobenzene	49.61	99 %	OK	86 - 115

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	44.82	47.73	6 %	OK	< 22
Trichloroethene	47.29	48.36	2 %	OK	< 24
Benzene	50.64	50.00	1 %	OK	< 21
Toluene	50.01	51.13	2 %	OK	< 21
Chlorobenzene	52.14	52.84	1 %	OK	< 21

BLAINE TECH SERVICES INC.

1370 TULLY ROAD., SUITE 505
SAN JOSE, CA 95122
(408) 995 5535

CHAIN OF CUSTODY: 930315-T1

CLIENT: ANACOMP

SITE: 5100 PATRICK HENRY
SANTA CLARA CA.

LAB: CURTIS & TOMPKINS DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- ☐ EPA
- ☐ LIA
- ☐ OTHER
- ☑ RWQCB REGION 2

SPECIAL INSTRUCTIONS

Bill to Anacomp, Inc.

SAMPLE I.D.	MATRIX S=SOIL W=H2O	CONTAINERS TOTAL		C=COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: EPA 8240	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW 1	W	2	40ml VOAS		✓		ROUTINE		110380-1
MW 2	W	2	40ml VOAS		✓				-2
MW 3	W	2	40ml VOAS		✓				-3
MW 5	W	2	40ml VOAS		✓				-4
MW 6	W	2	40ml VOAS		✓				-5
MW 7	W	2	40ml VOAS		✓				-6
MW 8	W	2	40ml VOAS		✓				-7
MW2EB	W	2	40ml VOAS		✓				-8

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN
	3/16/93	1222	SCOTT DURNFORD / FRAN THIE	ROUTINE

		DATE	TIME		DATE	TIME
RELEASED BY	Scott Durnford	3/16/93	1520	RECEIVED BY		
RELEASED BY		3/18/93	1438	RECEIVED BY		3/18/93 1438
RELEASED BY		DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

Anacomp, Inc.

(Formerly Xidex Corporation)

Monitoring Report
1st Quarter 1993

5100 Patrick Henry Drive
Santa Clara, California

CALIFORNIA REGIONAL WATER
JUL 0 2 1993
QUALITY CONTROL BOARD

ICF KAISER ENGINEERS

July 1, 1993

ICF KAISER ENGINEERS, INC.
11808 NORTHUP WAY, SUITE 104
BELLEVUE, WASHINGTON 98005
206/889-1000 FAX 206/889-1010

Mr. Hapte Kifle
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Dear Mr. Kifle:

Attached is the Monitoring Report for the 2nd Quarter of 1993 for the facilities located at 5200 and 5440 Patrick Henry Drive, Santa Clara, California. ICF Kaiser Engineers, Inc. is submitting this report on behalf of Anacomp, Inc.

Manufacturing activities at 5440 Patrick Henry Drive ended on February 15, 1991. Since the groundwater discharge was tied to the manufacturing activities described in the attached report, Anacomp had to stop the extraction and treatment program when manufacturing ceased. The 2nd quarter analytical results continue to indicate that methyl ethyl ketone (MEK), acetone, and Freon 113 are well below the Final Remediation Action Plan (FRAP) cleanup goals at the 5440 facility. In fact, in this quarter none of the above compounds were detected in any samples.

Anacomp discontinued analysis of diethylene glycol dimethyl ether (DGDE) in the 4th quarter of 1992 because it was not detected during the previous two quarters. Anacomp voluntarily began analyzing samples for extractable petroleum hydrocarbons in the diesel range in the 2nd quarter of 1992. Extractable petroleum hydrocarbons in the diesel range were detected in 4 of the 6 samples analyzed (all in the diesel range). The concentrations ranged from 530 to 1,200 ppb. Two of the 4 concentrations detected were above the diesel cleanup goal of 1,000 ppb. This is the first quarter diesel exceeded the cleanup goal and Anacomp will attempt to determine if the results represent a statistically insignificant fluctuation or an increasing trend. Anacomp discontinued extractable petroleum hydrocarbon analysis in the 5200 facility monitoring wells because there were no detections over two consecutive quarters in 1992.

If you have any questions regarding this report, please call Chris van der Woerd at (510) 889-0324.

Sincerely,

James F. Shellooe

James F. Shellooe, P.E.
Project Manager

JFS:csr

Attachment

cc: Lee Esquibel, Santa Clara County Health Department
Pamela Foley, W.F. Batton & Co., Inc.
Howard Hatayama, California Department of Health Services
Tom Iwamura, Santa Clara Valley Water District
David Parker, City of Santa Clara
Chris van der Woerd, Anacomp, Inc.
David Stevens, Abbott Laboratories

ANACOMP\0517400104\2QTR9352.LTR

2189-8118

Anacomp, Inc.

(Formerly Xidex Corporation)

Monitoring Report
2nd Quarter 1993

5200 Patrick Henry Drive
5440 Patrick Henry Drive
Santa Clara, California

Prepared under the direction of:

James F. Shellooe, P.E.
Registered Civil Engineer
State of California No. 32424
Expires 12/31/96

anacomp®

ADMINISTRATION

Anacomp, Inc.
22351 City Center Drive
Suite 203
Hayward, CA 94541
(510) 889-0324

CALIF. REG. WATER
DEC 17 1992
QLTY. CONTROL BOARD

December 16, 1992

Mr. Stephen Hill
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Dear Mr. Hill:

Attached is the 1992 Third Quarter Monitoring Report for the facilities located at 5200 and 5440 Patrick Henry Drive, Santa Clara, California.

Production at 5440 Patrick Henry Drive stopped in 1991. As described in the attached report, the groundwater discharge was tied to production activities. Since the groundwater discharge was associated with production activities, Anacomp had to stop the extraction and treatment program when production ceased.

The third quarter analytical results continue to indicate that methyl ethyl ketone (MEK), acetone, cyclohexanone, diglyme (diethylene glycol dimethyl ether) and diesel concentrations are below the health based clean up goals proposed in the Final Remediation Action Plan (FRAP) for the 5440 Patrick Henry Drive facility. In fact MEK, acetone, cyclohexanone and diglyme were not detected in any samples from the facility for the second consecutive quarter. The only analytes detected were carbon disulfide at a concentration of 3 micrograms per liter (ug/L) (below the reporting limit of 5 ug/L) in well B-45 and diesel ranging from 430 to 740 ug/L. The health based clean up goal proposed in the FRAP for diesel is 1,000 ug/L.

Freon 113 was detected in groundwater in two wells at 5200 Patrick Henry Drive. Freon 113 was detected at concentrations of 5 ug/L in well B-29 and 12 ug/L in well B-43. These concentrations are well below the Maximum Contaminant Level of 1,200 ug/L for Freon 113 in primary drinking water.

As we previously discussed, this report was delayed due to contamination of the original samples collected for the reporting period. After investigating both sample collection techniques and laboratory procedures, it appears that the source of the contamination was the sample bottles provided by the laboratory. This made it necessary to reschedule the sampling, analytic and consulting activities required to produce this report. Anacomp appreciates your cooperation in this matter.

If you have any questions, please feel free to call me at (510) 889-0324.

Yours Truly,

Chris van der Woerd

Chris van der Woerd
Environmental Manager
Anacomp, Inc.

cc: Lee Esquibel, Santa Clara County Health Department
Pamela Foley, W.F. Batton & Co., Inc.
Howard Hatayma, California Department of Health Services
Tom Iwamura, Santa Clara Valley Water District
David Parker, City of Santa Clara
Eric Whinston, Anacomp

2189·8118

Anacomp, Inc.

(Formerly Xidex Corporation)

Monitoring Report
3rd Quarter 1992

5200 Patrick Henry Drive
5440 Patrick Henry Drive
Santa Clara, California

Prepared under the direction of:

James F. Shellooe

James F. Shellooe, P.E.
Registered Civil Engineer
State of California No. 32424
Expires 12/31/92

2189·8118

2189.8118

Site Name: Anacomp (Former Xidex / Wysan)

Site Addr.: 5200 & 5440 Patrick Henry Drive, Santa Clara

Facility used: Computer Disk Manufacturing company.

Inv. Start: July 1982

Source of Contamin: Spillage, inadequate chemical handling practices, overflows, and/or possible leakage. {From 3 tank farms (UST) → 2 in Bldg 5200 & 1 in Bldg 5440}

Contaminants: Solvents such as MEK, Cyclohexanone, Isopropyl Alcohol (IPA) & Acetone in both soil and groundwater

Immediate Type of Remedial Action: Underground tanks have been flushed and cleaned then removed in Sept-Oct '88.

Cleanup Act: Discharger Proposed to control and cleanup the polluted groundwater by extraction. Monitoring continues on quarterly basis.

Enforcement Action: Site cleanup requirements adopted by RB on November 20, 1985.

Projected Task:
(1) Need to review RAP
(2) Prepare final cleanup Requirements or closure of case.
(3) Inspection of facility.

Anacomp (formerly

XIDEX (Dysan) Case Transfer

File No. 8118 (2189)

W.F. Ba How (Phone (415) 494-7471
1190 East Meadow Dr.
Palo Alto, CA 94303-4269

David Stevens Abbott Laboratories 5440

Facility Location: 5200 and 5440 Patrick Henry Drive, Santa Clara

Mailing Address: ~~P. O. Box 58053~~
~~Santa Clara, CA 95050~~ 22351 City Center Drive
Hayward, CA 94541 (Fax: (510) 889-8215

Company Contact: Chris Van der Woerd (510) 889-0324 ~~(408) 988-0472~~

Consultant Contact: ~~Chris van der Woerd~~ ICF Kaiser

Status: Cleanup is taking place pursuant to a Waste Discharge Requirements Order. Groundwater extraction at the sites is ongoing. 5200 and 5440 Patrick Henry Dr. (PHD) are two separate buildings but are listed under the same file name. They are part of the same facility. The facility is gradually being shut down and is now operating under a skeleton crew. Concentrations of pollutants are now at non-detect levels at 5200 PHD. At 5440 PHD, concentrations of methyl ethyl ketone (MEK) are in the single digit part per million (ppm) range. XIDEX has submitted a final remedial action plan (RAP) but it has not been reviewed. The RAP proposes a cleanup level for MEK of 1.8 ppm. The RAP should be reviewed and a final site cleanup order should be written. The final order may just need to specify future monitoring if cleanup levels have already been achieved. = 1989

Pumping has ceased due to industrial shutdown. Expect letter soon requesting case closure. Consultant, on phone, said all groundwater meets either MCLs or RAP proposed cleanup levels. Still need to review RAP to determine if levels appropriate.

Site now owned by Anacomp; same contact person ~~T. Hauck~~.

WKB
1/92

Note: No VOCs detected at 5200 PHD since 1987 except Freon 113 (≤ 40 ppb)
-SAH 11/92

+ Case is moving very smoothly.

CR

Anacomp (formerly)

XIDEX (Dysan) Case Transfer (JDW)

File No. 8118 (2189)

Facility Location: 5200 and 5440 Patrick Henry Drive, Santa Clara

Mailing Address: P. O. Box 58053
Santa Clara, CA 95050

Company Contact: Chris van der Woerd (408) 988-3472

Consultant Contact: Chris van der Woerd

Status: Cleanup is taking place pursuant to a 1985 Waste Discharge Requirements Order. Groundwater extraction at the sites is ongoing. 5200 and 5440 Patrick Henry Dr. (PHD) are two separate buildings but are listed under the same file name. They are part of the same facility. The facility is gradually being shut down and is now operating under a skeleton crew. Concentrations of pollutants are now at non-detect levels at 5200 PHD. At 5440 PHD, concentrations of methyl ethyl ketone (MEK) are in the single digit part per million (ppm) range. XIDEX has submitted a final remedial action plan (RAP) but it has not been reviewed. The RAP proposes a cleanup level for MEK of 1.8 ppm. The RAP should be reviewed and a final site cleanup order should be written. The final order may just need to specify future monitoring if cleanup levels have already been achieved.

1993 →

Pumping has ceased due to industrial shutdown. Expect letter soon requesting case closure. Consultant, on phone, said all groundwater meets either MCLs or RAP proposed cleanup levels. Still need to review RAP to determine if levels appropriate.

Site now owned by Ana Comp; same contact person - ~~E. Hank~~ Myers

WKB
1/92

Anacomp (formerly

XIDEX (Dysan) Case Transfer

File No. 8118 (2189)

W.F. Ba How (Phone (415) 494-7471
1190 East Meadow Dr.
Palo Alto, CA 94303-4269

David Stevens Abbott Laboratories 5440

Facility Location: 5200 and 5440 Patrick Henry Drive, Santa Clara

Mailing Address: ~~P. O. Box 58053~~
~~Santa Clara, CA 95050~~ 22351 City Center Drive
Hayward, CA 94541 (Fax: (510) 889-8215

Company Contact: Chris Van der Woerd (510) 889-0324 ~~(408) 988-0472~~

Consultant Contact: ~~Chris van der Woerd~~ ICF Kaiser

Status: Cleanup is taking place pursuant to a Waste Discharge Requirements Order. Groundwater extraction at the sites is ongoing. 5200 and 5440 Patrick Henry Dr. (PHD) are two separate buildings but are listed under the same file name. They are part of the same facility. The facility is gradually being shut down and is now operating under a skeleton crew. Concentrations of pollutants are now at non-detect levels at 5200 PHD. At 5440 PHD, concentrations of methyl ethyl ketone (MEK) are in the single digit part per million (ppm) range. XIDEX has submitted a final remedial action plan (RAP) but it has not been reviewed. The RAP proposes a cleanup level for MEK of 1.8 ppm. The RAP should be reviewed and a final site cleanup order should be written. The final order may just need to specify future monitoring if cleanup levels have already been achieved. = 1989

Pumping has ceased due to industrial shutdown. Expect letter soon requesting case closure. Consultant, on phone, said all groundwater meets either MCLs or RAP proposed cleanup levels. Still need to review RAP to determine if levels appropriate.

Site now owned by Anacomp; same contact person ~~T. Hauck~~.

WKB
1/92

Note: No VOCs detected at 5200 PHD since 1987 except Freon 113 (≤ 40 ppb)
-SAH 11/92

+ Case is moving very smoothly.

CR

Anacomp (formerly)

XIDEX (Dysan) Case Transfer (JDW)

File No. 8118 (2189)

Facility Location: 5200 and 5440 Patrick Henry Drive, Santa Clara

Mailing Address: P. O. Box 58053
Santa Clara, CA 95050

Company Contact: Chris van der Woerd (408) 988-3472

Consultant Contact: Chris van der Woerd

Status: Cleanup is taking place pursuant to a 1985 Waste Discharge Requirements Order. Groundwater extraction at the sites is ongoing. 5200 and 5440 Patrick Henry Dr. (PHD) are two separate buildings but are listed under the same file name. They are part of the same facility. The facility is gradually being shut down and is now operating under a skeleton crew. Concentrations of pollutants are now at non-detect levels at 5200 PHD. At 5440 PHD, concentrations of methyl ethyl ketone (MEK) are in the single digit part per million (ppm) range. XIDEX has submitted a final remedial action plan (RAP) but it has not been reviewed. The RAP proposes a cleanup level for MEK of 1.8 ppm. The RAP should be reviewed and a final site cleanup order should be written. The final order may just need to specify future monitoring if cleanup levels have already been achieved.

1993 →

Pumping has ceased due to industrial shutdown. Expect letter soon requesting case closure. Consultant, on phone, said all groundwater meets either MCLs or RAP proposed cleanup levels. Still need to review RAP to determine if levels appropriate.

Site now owned by Ana Comp; same contact person - ~~E. Hank~~ Myers

WKB
1/92

Anacomp (formerly ✓

XIDEX (Dysan) Case Transfer

File No. 8118 (2189)

W.F. Bathow (Phone (415) 494-7471
1190 East Meadow Dr.
Palo Alto, CA 94303-4269

Facility Location: 5200 and 5440 Patrick Henry Drive, Santa Clara

David Stevens
Abbott Laboratories
5440

Mailing Address: ~~P.O. Box 58053~~
~~Santa Clara, CA 95050~~

22351 City Center Drive
Hayward, CA 94541 (Fax: (510) 889-8215

Company Contact: Chris Van der Woerd (510) 889-0324 ~~(408) 988-6472~~

Consultant Contact: ~~Chris van der Woerd~~ ICF Kaiser

Status: Cleanup is taking place pursuant to a Waste Discharge Requirements Order. Groundwater extraction at the sites is ongoing. 5200 and 5440 Patrick Henry Dr. (PHD) are two separate buildings but are listed under the same file name. They are part of the same facility. The facility is gradually being shut down and is now operating under a skeleton crew. Concentrations of pollutants are now at non-detect levels at 5200 PHD. At 5440 PHD, concentrations of methyl ethyl ketone (MEK) are in the single digit part per million (ppm) range. XIDEX has submitted a final remedial action plan (RAP) but it has not been reviewed. The RAP proposes a cleanup level for MEK of 1.8 ppm. The RAP should be reviewed and a final site cleanup order should be written. The final order may just need to specify future monitoring if cleanup levels have already been achieved. = 1989

Pumping has ceased due to industrial shutdown. Expect letter soon requesting case closure. Consultant, on phone, said all groundwater meets either MCLs or RAP proposed cleanup levels. Still need to review RAP to determine if levels appropriate.

Site now owned by Anacomp, same contact person ~~E. Hatch~~.

WKB
1/92

Note: No VOCs detected at 5200 PHD since 1987 except Freon 113 (540 ppb)
-SAH 11/92

* Case is moving very smooth.

CR

Anacomp Formerly

XIDEX (Dysan) Case Transfer (JDW)

File No. 8118 (2189)

Facility Location: 5200 and 5440 Patrick Henry Drive, Santa Clara

Mailing Address: P. O. Box 58053
Santa Clara, CA 95050

Company Contact: Chris van der Woerd (408) 988-3472

Consultant Contact: Chris van der Woerd

Status: Cleanup is taking place pursuant to a 1985 Waste Discharge Requirements Order. Groundwater extraction at the sites is ongoing. 5200 and 5440 Patrick Henry Dr. (PHD) are two separate buildings but are listed under the same file name. They are part of the same facility. The facility is gradually being shut down and is now operating under a skeleton crew. Concentrations of pollutants are now at non-detect levels at 5200 PHD. At 5440 PHD, concentrations of methyl ethyl ketone (MEK) are in the single digit part per million (ppm) range. XIDEX has submitted a final remedial
1989 → action plan (RAP) but it has not been reviewed. The RAP proposes a cleanup level for MEK of 1.8 ppm. The RAP should be reviewed and a final site cleanup order should be written. The final order may just need to specify future monitoring if cleanup levels have already been achieved.

Pumping has ceased due to industrial shutdown. Expect letter soon requesting case closure. Consultant, on phone, said all groundwater meets either MCLs or RAP proposed clean up levels. Still need to review RAP to determine if levels appropriate.

Site now owned by Anacomp, same contact person - ~~I think~~ = yes

WKB
1/92

2189.8118

Site Name: Anacomp (Former Xidex / Wysan)

Site Addr.: 5200 & 5440 Patrick Henry Drive, Santa Clara

Facility used: Computer Disk Manufacturing company.

Inv. Start: July 1982

Source of Contamin: Spillage, inadequate chemical handling practices, overflows, and/or possible leakage. {From 3 tank farms (UST) → 2 in Bldg 5200 & 1 in Bldg 5440}

Contaminants: Solvents such as MEK, Cyclohexanone, Isopropyl Alcohol (IPA) & Acetone in both soil and groundwater

Immediate Type of Remedial Action: Underground tanks have been flushed and cleaned then removed in Sept-Oct '88.

Cleanup Act: Discharger Proposed to control and cleanup the polluted groundwater by extraction. Monitoring continues on quarterly basis.

Enforcement Action: Site cleanup requirements adopted by RB on November 20, 1985.

Projected Task:
(1) Need to review RAP
(2) Prepare final cleanup Requirements or closure of case.
(3) Inspection of facility.

Purpose: CERCLA Screening Site Inspection

Site: Dysan Corporation
5440 Patrick Henry Drive
Santa Clara
Santa Clara County
California

JAN 8 1991 JDW

Site EPA ID Number:	CAD063541445
TDD Number:	F9-9005-038
Program Account Number:	FCA0669SAA
FIT Investigators:	Bradford Webb Linda Stone
Date of Inspection:	July 19, 1990
Report Prepared By:	Bradford Webb BW
Through:	Daniel Hafley
Report Date:	October 25, 1990
FIT Review/Concurrence:	Karen Sadd 10/25/90
Submitted To:	Rachel Loftin EPA Region IX Site Assessment Manager

bw/dysan/ssi

ecology and environment, inc.
160 SPEAR STREET, SAN FRANCISCO, CALIFORNIA 94105, TEL. 415/777-2811
International Specialists in the Environment

recycled paper

TABLE OF CONTENTS

Section		Page
1	INTRODUCTION	1-1
2	SITE DESCRIPTION	2-1
	2.1 SITE LOCATION AND OWNER/OPERATOR HISTORY	2-1
	2.2 FACILITY PROCESSES AND WASTE MANAGEMENT	2-4
	2.2.1 HISTORICAL	2-4
	2.2.2 CURRENT	2-5
3	APPARENT PROBLEM	3-1
4	REGULATORY INVOLVEMENT	4-1
5	HRS FACTORS	5-1
	5.1 WASTE TYPE AND QUANTITY	5-1
	5.2 GROUNDWATER	5-2
	5.3 SURFACE WATER	5-6
	5.4 AIR	5-7
	5.5 ON-SITE	5-9
6	SUMMARY OF FIT INVESTIGATIVE ACTIVITIES	6-1
	6.1 AGENCIES CONTACTED	6-1
	6.2 RECONNAISSANCE OBSERVATIONS	6-1
	6.3 SAMPLING	6-2
7	EMERGENCY RESPONSE CONSIDERATIONS	7-1
8	SUMMARY OF HRS CONSIDERATIONS	8-1
9	EPA RECOMMENDATION	9-1
10	REFERENCES	10-1

APPENDIX

A	CONTACT LOG AND REPORTS
B	PHOTODOCUMENTATION
C	HISTORICAL GROUNDWATER MONITORING DATA

LIST OF ILLUSTRATIONS

Figure		Page
2-1	SITE LOCATION MAP	2-2
2-2	FACILITIES MAP	2-3
3-1	MONITORING WELL LOCATION MAP	3-2

LIST OF TABLES

Table		Page
5-1	SELECTED GROUNDWATER SAMPLING RESULTS	5-4
5-2	SELECTED SOIL SAMPLING RESULTS	5-5
5-3	SENSITIVE ENVIRONMENTS AND SPECIES	5-8
C-1	GROUNDWATER SAMPLING DATA: CONCENTRATIONS OF METHYL ETHYL KETONE	APPENDIX C
C-2	GROUNDWATER SAMPLING DATA: CONCENTRATIONS OF ACETONE	APPENDIX C
C-3	GROUNDWATER SAMPLING DATA: CONCENTRATIONS OF ISOPROPYL ALCOHOL	APPENDIX C

1. INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA) the U.S. Environmental Protection Agency (EPA) has tasked Ecology and Environment Inc.'s Field Investigation Team (E & E FIT) to conduct a Screening Site Inspection of the Dysan Corporation site, located at 5440 Patrick Henry Drive in Santa Clara, California. This report summarizes FIT's investigative efforts.

2. SITE DESCRIPTION

2.1 SITE LOCATION AND OWNER/OPERATOR HISTORY

From 1979 to 1985, Dysan Corporation (Dysan) owned and operated a manufacturing facility located at 5440 Patrick Henry Drive in the city of Santa Clara in the northern Santa Clara Valley (Township 6 South, Range 1 West, Section 16, Mount Diablo Base Line and Meridian; Latitude: 37° 23′ 20", Longitude: 121° 59′ 01") (1,2). This facility produced rigid discs, which function as the "memory" of mainframe and personal computers. In 1985, Xidex Corporation (Xidex), a division of the Anacomp Company, purchased Dysan Corporation and continued manufacturing rigid discs at the site using the same process used by Dysan (3).

The nine-acre site is located approximately 1 mile northwest of Marriott's Great America Amusement Park and 0.7 miles southeast of the intersection of Lawrence Expressway and Mountain View-Alviso Road (see Figure 2-1, Site Location Map) (2). The site is bounded on the west by Calabazas Creek, on the north by Mountain View-Alviso Road, on the east by Patrick Henry Drive, and on the south by 5200 Patrick Henry Drive, another former Dysan site now owned and operated by Xidex (4). Industrial, residential, and undeveloped areas are within 4 miles of the site (2,4).

Prior to 1979, the Dysan site was undeveloped. In 1979, Dysan completed construction of the present facility. The site may have been previously occupied by a dairy (4). Dysan started manufacturing rigid discs at the site in 1979, and these operations have continued to the present (3). Dysan also operated similar facilities at 5301 Patrick Henry Drive and 5200 Patrick Henry Drive, which are adjacent to the 5440 Patrick Henry Drive site (See Figure 2-2, Facilities Map). After purchasing Dysan in February 1985, Xidex took over operations at the site and is the current owner/operator of the site (4). Xidex is planning to discontinue operations at the site in the near future and will lay off a significant number of employees in September and October of 1990 (5).

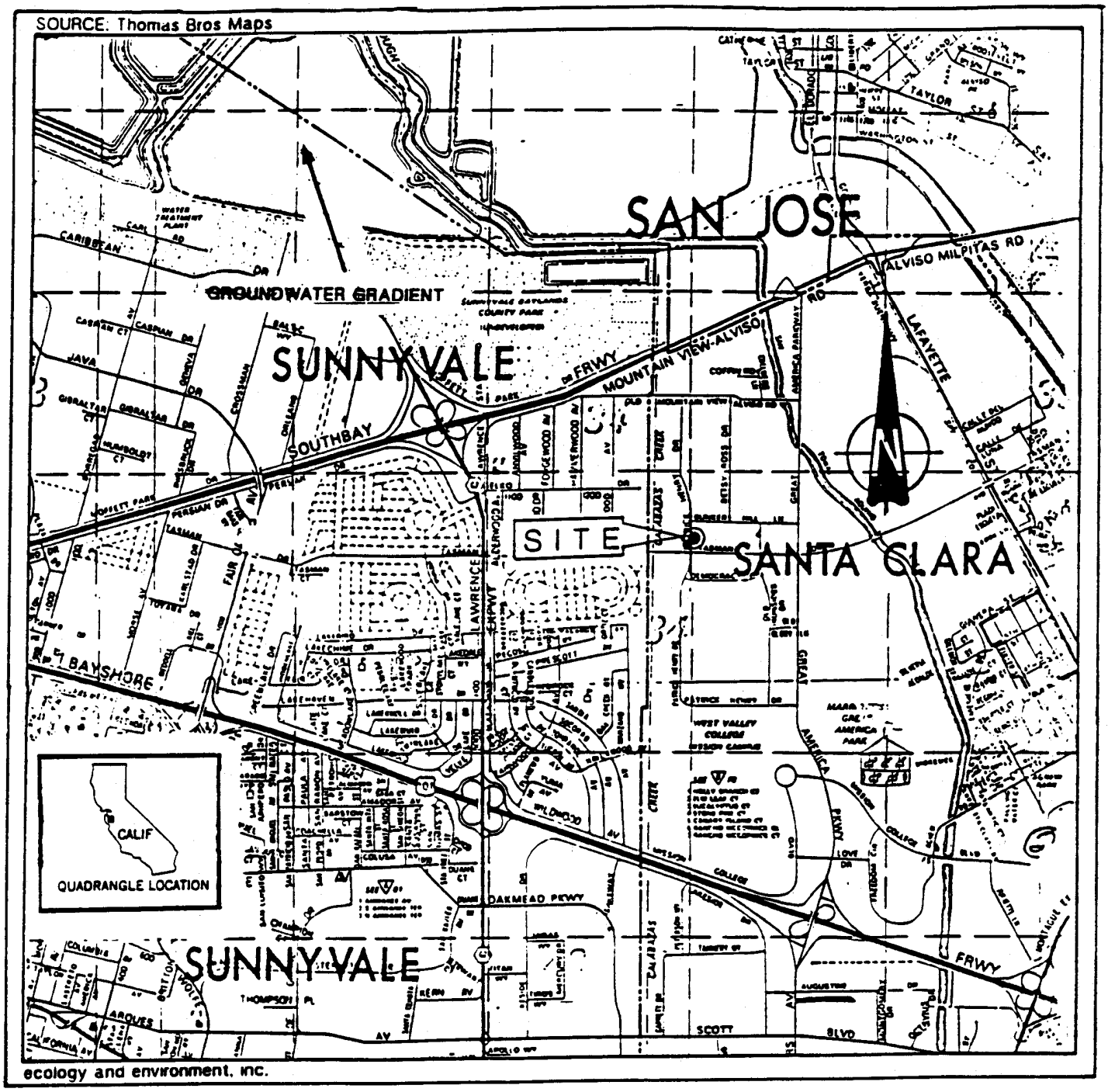


FIGURE 2-1
SITE LOCATION MAP

DYSAN CORPORATION
5440 PATRICK HENRY DRIVE
SANTA CLARA, CA 95050

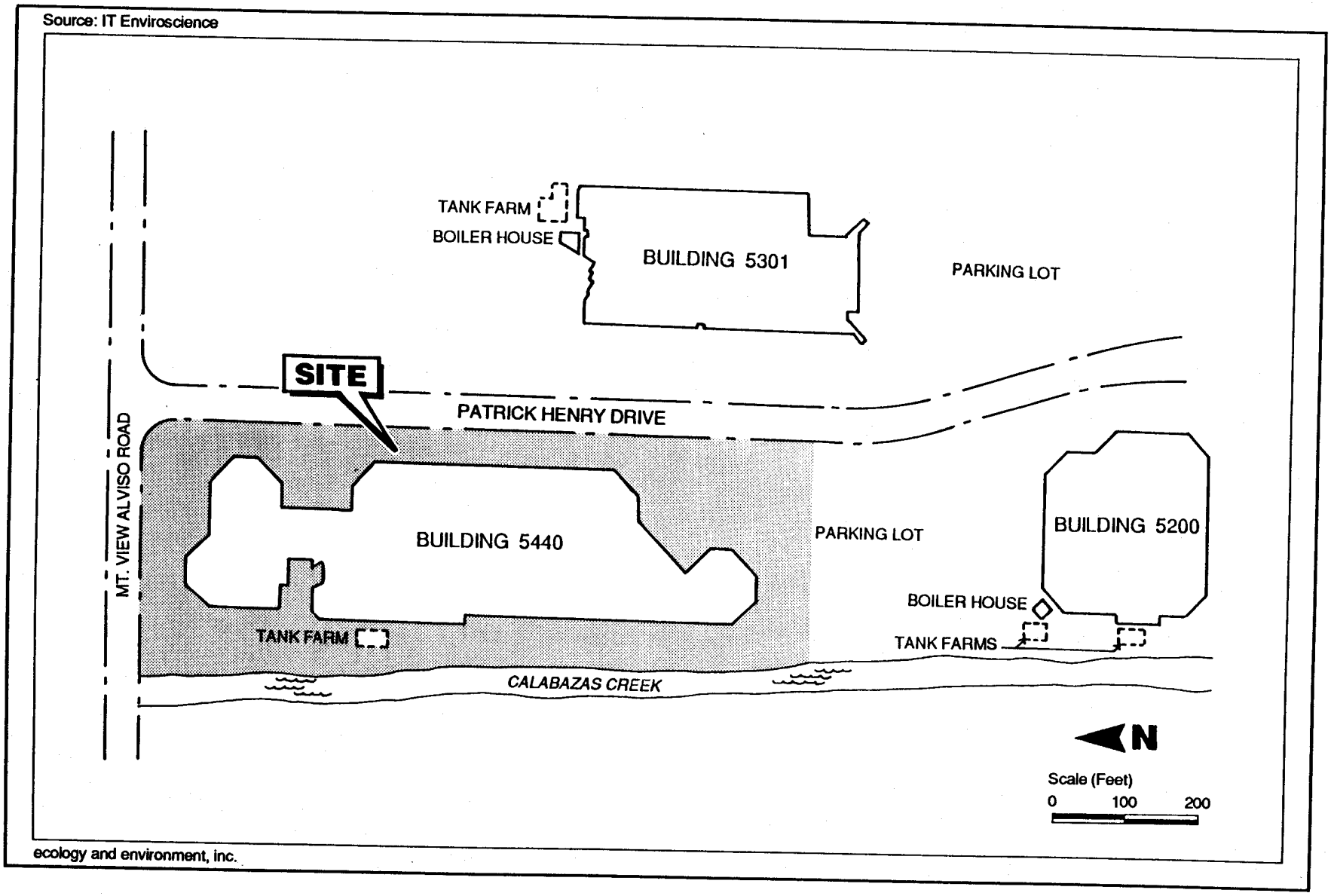


Figure 2-2

FACILITIES MAP - DYSAN CORPORATION
5440 Patrick Henry Dr.
Santa Clara, CA

The size of the site and the types of operations conducted at the site have remained constant despite the change of ownership (3). The site is occupied by a large building which is surrounded by a parking lot. The building contains manufacturing, warehouse, and quality control operations. Raw materials are delivered to the loading dock at the rear of the building. Waste materials are stored on a concrete slab in an enclosed area at the rear of the building. Manufacturing operations occur in the southwest-rear portion of the building. Warehouse operations occur in the front half of the eastern portion of the building. A quality control laboratory is located in central portion of the building (4).

2.2 FACILITY PROCESSES/WASTE MANAGEMENT

2.2.1 HISTORICAL

Prior to 1979, the site was unoccupied and undeveloped. A dairy may have occupied the site at one time. Construction of the present facility, which included the installation of four underground storage tanks at the rear of the site, was completed in 1979. Dysan commenced manufacturing operations shortly thereafter (4). Rigid discs, which serve as a computer's memory, were the end product of the manufacturing process. Both the chemicals used at the site in the past and the processes used to manufacture the product were essentially the same as those detailed below in Section 2.2.2 (3).

From 1979 to 1982, two 7,300-gallon, steel underground storage tanks were used to store both virgin and waste solvents, and two 10,000-gallon, fiberglass underground storage tanks were used to store diesel. In 1982, after discovery of contamination in the underground tank farm, the use of these tanks was discontinued, and they were flushed with steam (6). In 1988, the four underground tanks and the associated piping were removed. From 1982 to the present, the facility has received raw materials in 55-gallon drums. Since 1982, waste materials have been stored in 55-gallon drums and disposed of under manifest by a contracted waste-hauler (1).

2.2.2 CURRENT

Xidex currently manufactures rigid discs of various sizes. Pure aluminum discs (7 inch and 14 inch diameters) are provided by a supplier. These discs look much like a compact disc or an LP record. These discs have a hole in the center of them for ease of handling during the manufacturing process. The discs are first polished to a mirror finish with industrial soap and Styrofoam pads. The soap is then rinsed off the discs; the soapy water is discharged to the sewer under a permit from the San Jose/Santa Clara Water Pollution Control District (3,6).

A chain is run through the center of a number of discs. These discs are then passed through a vapor degreaser. The vapor degreaser sprays a mist of solvents on the discs to ensure that the discs are clean. At present, one vapor degreaser is in operation at the site; this vapor degreaser is equipped with emissions abatement equipment. The clean discs are placed on racks and subjected to a coating process (3).

The coating applied to the discs is a mixture of aluminum and iron oxides, cyclohexanone, methyl ethyl ketone (MEK), and diethylene glycol methyl ether (diglyme). The active ingredient in this mixture is iron oxide. Three batches per week of this coating are mixed; each batch is 50 to 60 gallons in size. The coating is prepared in the mixing room, which contains 10 to 15 mixing kettles. The coating mix is 17 to 27 per cent solids and has the consistency of pudding. During mixing, Xidex places a mylar-like material over the top of the kettles to minimize venting of volatile organic compounds (VOCs); this covering is considered to be the best available control technology (3).

The coating mix is then loaded into 5-gallon feed buckets on automated coating machines. Individual discs are picked up off racks by a robot arm. The discs are rotated at 10,000 r.p.m. while the coating is applied. Each disc is sprayed with the coating mixture for about three seconds, and the high-speed rotation ensures that the thinnest coating possible is applied. The transfer efficiency of the coating process is

very low with approximately 10% of the total volume of coating sprayed actually adhering to the discs. The excess coating mixture is collected in a recovery container and is either recycled or treated as hazardous waste and disposed of under manifest. The coating machines are equipped with emissions control equipment. Eight to 12 coating machines are currently in use although the facility is permitted for a greater number (3).

A magnet is used to orient the iron oxide particles on the disc, and the discs are then baked in an industrial oven. The final step in the manufacturing process involves polishing the discs with isopropyl alcohol (IPA) and wipe rags. Extensive quality control is then performed on the discs. Depending on the problem, defective discs are either returned to the aluminum supplier for recycling or are reconditioned by Xidex. The finished discs are then placed in carts and packs; these serve to facilitate installation of the discs in computers. The discs are then shipped to individual customers. Currently, 7,500 discs per week are produced at the site although this quantity will decrease as Xidex implements its plans to close the facility (3).

Virgin solvents and industrial soap are received at the loading dock. These materials are stored in the northeast corner of the loading dock; diking in the form of a low wall (3-4 inches) is present. At present, all hazardous materials arrive on the site in 55-gallon drums (4). Hazardous materials used on a regular basis at the site include MEK, IPA, Freon 113, diglyme, sodium hydroxide, cellosolve, methanol, cyclohexanone, diisocyanate, and acetone (7). Acetone and MEK are used to clean the mixing equipment. Methanol is used in the quality control process as well as in a solvent ink used to stamp a tracking number on the finished discs. Diisocyanate is used in the on-site production of the Styrofoam used in the initial polishing step (3). Manufacturing and process areas have polyethylene-coated concrete floors with sumps for spill control (4).

At present, a variety of wastes are generated on site. The soapy water generated during the initial polishing step is discharged to the sewer under a permit from San Jose/Santa Clara Department of Water Pollution Control (5,6). Coating mix that is not recycled is treated as hazardous waste and disposed of in 55-gallon drums. Both the solvents used to clean the mixing equipment and the IPA-contaminated wipe rags are disposed of in 55-gallon drums (3). All other liquid hazardous wastes generated on site are also disposed of in 55-gallon drums (1). These stored drums are picked up by a contracted waste hauler for disposal under manifest (4). Aluminum discs that do not meet quality control requirements are either reconditioned or returned to the aluminum disc supplier for recycling (3).

3. APPARENT PROBLEM

In 1982, Dysan discovered MEK contamination in the underground tank farm at another Dysan site located on Patrick Henry Drive. Dysan then initiated a voluntary subsurface investigation of the underground tank farm at the 5440 Patrick Henry Drive site (6). A consultant for Dysan installed six groundwater monitoring wells around the tank farm perimeter at 5440 Patrick Henry Drive (see Figure 3-1, Monitoring Well Location Map). Groundwater samples from all six wells indicated that the shallow groundwater in the vicinity of the tank farm was contaminated with IPA (700,000 µg/L), cyclohexanone (440,000 µg/L), MEK (49,000,000 µg/L), cellosolve (1,200,000 µg/L), and diesel (concentration not available); the above concentrations were the maximum detected during this sampling event (8).

The California Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, reviewed the consultant's initial report and requested that Dysan conduct additional investigations to define the lateral and vertical extent of the contamination. These supplementary investigations, which included the installation of additional monitoring wells, were performed between July 1982 and March 1983. Laterally, contamination did not extend beyond 40 feet to the north and 20 feet to the south, west, and east of the tank farm. Vertically, contamination did not extend to depths greater than 30 feet below ground surface (bgs) (6).

These supplementary investigations indicated that the potential for migration of the contaminant plume off site was low. No contamination was detected in soil and surface water samples collected from Calabazas Creek, which is located approximately 100 feet west of the tank farm (8). In 1983-84, RWQCB helped Dysan develop a remedial action plan which included removal of the underground tanks and surrounding contaminated soil, use of an extraction well and air-stripping system, and regular groundwater monitoring (9). Implementation of the plan was delayed when Dysan changed consultants in September 1984 (6).

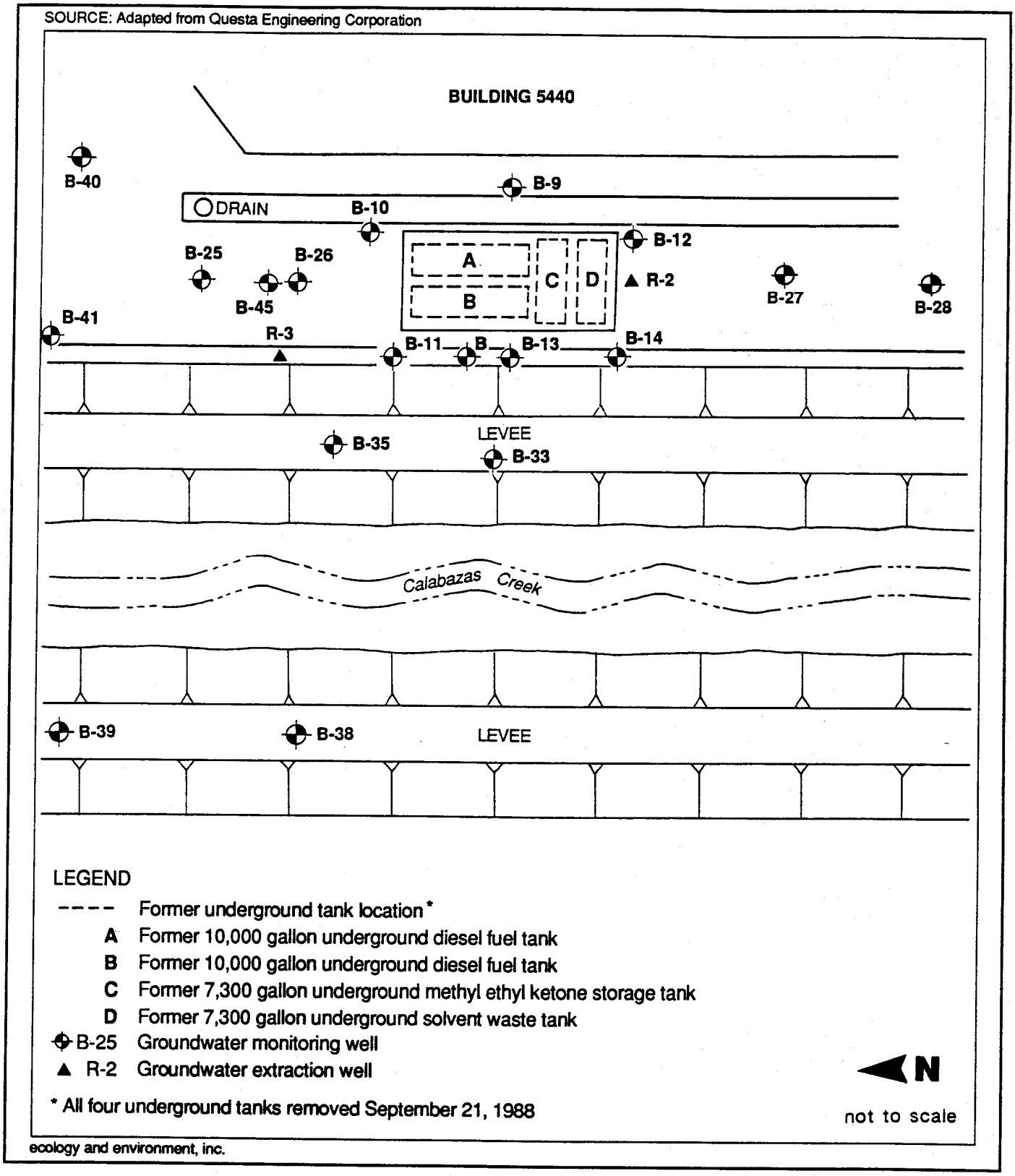


Figure 3-1

MONITORING WELL LOCATION MAP -- DYSAN CORPORATION
5440 Patrick Henry Dr.
Santa Clara, CA

In February 1985, Xidex purchased Dysan and eliminated the Dysan cleanup plan because of the prohibitive cost of excavating the underground tanks and contaminated soil. Xidex then hired another consultant to design and implement a new cleanup plan based exclusively on treatment of contaminated groundwater (6). Between May and August 1985, this new consultant installed one extraction well upgradient of the tank farm and another downgradient. During the next two months, the extraction wells were tested and evaluated, but remedial activities were not started (10). In November 1985, RWQCB issued Waste Discharge Requirements (Site Cleanup Requirements) Order 85-131 requiring Xidex to initiate cleanup of the site by January 1986, but equipment-related problems prevented Xidex from complying with the order (11,12).

Xidex started operation of the groundwater extraction and treatment system in August 1986 (12). The on-site treatment system consists of two extraction wells and an air-stripping system (1). Discharge of treated groundwater to the sewer system is done under a permit from the San Jose/Santa Clara Department of Water Pollution Control (5,6). The groundwater treatment system operated continuously until removal of the underground tanks in September 1988; operation of the treatment system was then discontinued due to concerns about silt generated during the tank removal fouling the treatment system (1).

Removal of the four underground storage tanks was accomplished in September 1988 under the supervision of the city of Santa Clara Fire Department (1,13). The concrete pad on which the underground tanks rested, which was 14 feet below ground surface (bgs), was not removed. The material excavated during the removal of the tank farm was a combination of pea gravel and sand; this material was aerated and was then placed back in the excavated area with the permission of RWQCB. Fill was placed on top of the contaminated backfill, and the entire area was paved over with asphalt (4,13).

Per RWQCB requirements, extensive sampling of soil and groundwater was done during the underground tank removal. During the tank removal, standing groundwater was found at 9 feet below ground surface (bgs). Water samples were collected from the standing water at various locations in the excavation. Soil samples were collected at the soil-water interface at various locations in the excavation, and 5 composite soil samples were collected from the 230 cubic yards of excavated backfill material. All water and soil samples were analyzed for acetone, IPA, MEK, cyclohexanone, diglyme, and diesel (13).

The water samples contained several compounds including acetone (470 µg/L), MEK (11,900 µg/L), cyclohexanone (32,700 µg/L), and diesel (870,000 µg/L). The excavated soil contained acetone (150 µg/L), IPA (68 µg/L), MEK (250 µg/L), cyclohexanone (91 µg/L), diglyme (10,600 µg/L), and diesel (75,000 µg/L) (13). The above results are a composite of the highest concentrations of compounds detected in the soil and water samples collected at different locations during the tank removal (13).

Following removal of the underground tanks, preparations were made to restart the groundwater treatment system. It was subsequently discovered that Xidex had not obtained a permit from BAAQMD to operate the air-stripping portion of the treatment system (1). The treatment system was restarted in July 1990 after the required permit was obtained. At present, MEK, IPA, and acetone concentrations in groundwater are continuing to decrease. The most recent groundwater sampling round was conducted in August 1990; the only contaminants above detection limits were acetone (1,500 µg/L) and MEK (9,800 µg/L) (5).

4. REGULATORY INVOLVEMENT

RWQCB, the lead agency at the Dysan site, began monitoring the contamination problem in 1982 (6,14). Since cleanup is not yet complete, RWQCB has classified the site as "in-progress" (15). RWQCB receives progress reports quarterly from Xidex regarding cleanup status of the site. Previously, sampling had been monthly with bimonthly reporting. In October 1990, RWQCB agreed to quarterly sampling and reporting (1). RWQCB considers this site to be a low priority site given the small areal extent of the contaminant plume and the apparent effectiveness of the present treatment system at capturing and remediating the contaminant plume (14,15).

BAAQMD regulates air releases from the Dysan site (16). Dysan and Xidex have had a history of air quality permit violations at the site (1,16). Dysan was cited for not meeting scrubber efficiency requirements and for exceeding permitted VOC emissions from specified point sources. In August 1988, Xidex received an abatement order from BAAQMD and was told to bring its facility into compliance (17). Xidex has been inspected regularly and has been found in compliance with the requirements set forth in its permits since mid-1988. BAAQMD also regulates the air-stripping portion of the groundwater treatment system at this site (16). Initially, Dysan did not obtain a "Permit to Construct" for this system, but this permit has since been obtained (1). BAAQMD does not consider the Dysan site to be a problem as of this report date (16).

The Dysan site is not listed in the January 1989 State of California Expenditure Plan for the Hazardous Substance Cleanup Bond Act of 1984 (18). The Resource Conservation and Recovery Act Database lists the facility as a Generator 1, or large quantity generator (19). DHS does not have a project officer assigned to this site (20). In its 1985 Order regarding site cleanup requirements, RWQCB required Xidex to send copies of all site-related documents to several other agencies including the Santa Clara Valley Water District (SCVWD), the Santa Clara County Health Department (SCCHD), the City of Santa Clara, and the California Department of Health Services (DHS) (11).

5. HRS FACTORS

The Hazard Ranking System (HRS) is a scoring system used to assess the relative threat associated with actual or potential releases of hazardous substances from sites. It is the principal mechanism EPA uses to place sites on the National Priorities List (NPL). EPA has proposed revisions to the HRS, pursuant to the Superfund Amendments and Reauthorization Act of 1986 (SARA). FIT has evaluated the following proposed revised HRS factors relative to this site.

5.1 WASTE TYPE AND QUANTITY

The waste types of concern are solvents including MEK, IPA, cellosolve, cyclohexanone, acetone, and diglyme. These compounds have relatively low toxicity but are highly mobile in groundwater and soil (6). Sections 101(14) and 101(33) of CERCLA exclude petroleum from the definition of a hazardous substance, pollutant, or contaminant. As such, the diesel contamination of soil and groundwater at Dysan was not considered in E & E FIT's evaluation of the site.

Shallow groundwater and soil contamination are associated with the former underground tank farm. The tank farm contained four underground tanks including two 10,000-gallon, non-vaulted, fiberglass diesel tanks; one 7,300-gallon, non-vaulted, steel MEK storage tank; and one 7,300-gallon, non-vaulted, steel waste solvent tank. The contaminants found in soil and shallow groundwater at the Dysan site are those that were stored in the tanks during the time these tanks were in use, 1979 to 1982 (6). RWQCB has attributed the soil and groundwater contamination at the Dysan site to spillage, inadequate chemical handling practices, overflows, and/or possible leakage (11).

Contaminants released to air are also a concern at the Dysan site. The site has a history of air quality permit violations involving releases of VOCs exceeding permitted amounts (1,16,17,21). The primary VOC released to air was MEK (5). The exact quantity of hazardous materials released to air in the past is unknown.

5.2 GROUNDWATER

An observed release of several contaminants to shallow groundwater has occurred at the Dysan site, and this has been confirmed by extensive sampling. The Dysan site is located in the Santa Clara subbasin of the northern Santa Clara Valley groundwater basin. The Santa Clara subbasin is composed of a shallow, unconfined aquifer and a deeper, confined aquifer. This aquifer system is the product of the alluvial environment in which the sediments of the Santa Clara Valley were deposited. The Santa Clara Valley consists of interfingering and overlapping stream and floodplain deposits. The stream deposits consist of highly permeable sands and gravels in channels. The thickness of these deposits ranges from 1 foot to 10 feet. The floodplain deposits are composed primarily of low permeability silts and clays (6).

The Dysan site is located on the distal portion of an alluvial fan. As such, the soils underlying the Dysan site consist primarily of low permeability clays. Depth to groundwater at the site ranges from 5 to 7 feet bgs, and the regional groundwater gradient is north toward San Francisco Bay. The shallow groundwater is typically saline due to saltwater intrusion from the nearby bay; as such, it is generally not used for drinking water purposes (6). Depth to the lower aquifer, which is the principal drinking water aquifer for the Santa Clara Valley, is approximately 200 to 250 feet bgs at the Dysan site (6,24). A continuous clay layer exists between the two aquifers in this portion of the Santa Clara Valley (6,22,23). In the vicinity of the Dysan site, this intervening clay layer between the upper and lower aquifers is approximately 100 feet thick (22). The net annual precipitation for Santa Clara is 6.07 inches (24,25).

Aquifer interconnection via conduit wells has been documented at certain locations in the Santa Clara Valley. However, no such conduit wells are known to exist within two miles of the Dysan site (22,23). Additionally, pump testing performed during evaluation of the groundwater treatment system showed that the stratigraphy underlying the Dysan site is not

conducive to migration of groundwater from the upper aquifer to the lower aquifer (6).

Selected groundwater sampling results are presented in Table 5-1. The results presented in Table 5-1 are from the initial subsurface investigation in August 1982, the underground tank removal in September 1988, and the August 1990 quarterly sampling event (5,8,13). The August 1982 and August 1990 data was derived from samples collected from groundwater monitoring wells installed around the former underground tank farm (see Figure 3-1, Monitoring Well Location Map) (5,8). All of the monitoring wells at the Dysan site were completed in the upper aquifer; forty feet is the maximum depth of completion for groundwater monitoring wells at the site (6). The September 1988 samples were collected from standing groundwater which was encountered at a depth of nine feet bgs in the excavated area of the former tank farm (13). The results presented in Table 5-1 are a composite of the highest concentration of compounds that were above detection limits in the respective sampling event. Samples were collected from several different locations during each event, and this table is intended to present only the maximum concentrations of contaminants at a given time.

The August 1982 sampling was conducted by a private consultant retained by Dysan (8). The September 1988 and August 1990 sampling was conducted by other private consultants hired by Xidex (5,13). All sampling was performed under RWQCB oversight (5,8,13). Neither the analyses run or the detection limits used in the August 1982 sampling are known. For the September 1988 sampling event, the water samples, with detection limits in parentheses, were analyzed for IPA (10 µg/L), MEK (2 µg/L), diglyme (1,000 µg/L), acetone (4 µg/L), cyclohexanone (10 µg/L), and diesel (1,000 µg/L) (13). The water samples collected during the August 1990 quarterly sampling episode were analyzed for VOCs (EPA Method 624); selected groundwater samples were analyzed for Aromatic VOCs (EPA Method 602) and Total Petroleum Hydrocarbons (26). The detection limits used on these water samples were 20.0 µg/L for MEK, 20.0 µg/L for acetone, and 100 µg/L for IPA; the detection limits for other compounds are unknown (5,26).

TABLE 5-1
SELECTED GROUNDWATER SAMPLING RESULTS

Compound	August 1982 (µg/L)	September 1988 (µg/L)	August 1990 (µg/L)
Acetone	NA	470	1,500
IPA	700,000	ND	ND
Cellosolve	1,200,000	ND	ND
MEK	49,000,000	11,900	9,800
Cyclohexanone	440,000	32,700	ND
Diglyme	NA	ND	ND

NA = analysis not performed for this compound
ND = compound not present at a concentration above detection limit
Note: Detection limits are unknown for August 1982.

Historical groundwater sampling results for MEK, acetone, and IPA are presented in Tables C-1, C-2, and C-3 in Appendix C; locations of monitoring wells are presented in Figure 3-1. In general, groundwater sampling results show that concentrations of contaminants in groundwater have steadily decreased over time (26). This decrease is most directly attributable to the operation of the groundwater extraction and treatment system (5,6).

Table 5-2 presents the results of soil sampling performed during an investigation to determine the vertical extent of contamination in February 1983 and during the removal of the four underground tanks in September 1988 (13,27). These soil sampling results show that concentrations of contaminants in the soil have also decreased over time. The method and detection limits used to analyze the samples obtained during the February 1983 sampling event are unknown. Samples collected in September 1988 were analyzed using a modified EPA method 8015 with the following detection limits: acetone (10 µg/L), IPA (30 µg/L), MEK (10 µg/L), cyclohexanone (30 µg/L), and diglyme (1,000 µg/L) (13). Although

specific sample depths are unknown, the soil samples were collected from a maximum depth of 20 feet in February 1983 and 14 feet in September 1988 (13,27).

TABLE 5-2
SELECTED SOIL SAMPLING RESULTS

Compound	February 1983 (µg/L)	September 1988 (µg/L)
Acetone	NA	150
IPA	600	68
Cellosolve	100	ND
MEK	200,000	250
Cyclohexanone	200	91
Diglyme	NA	10,600

NA = analysis not performed for this compound
ND = compound not present at a concentration above detection limit
Note: detection limits are unknown for February 1983.

The beneficial uses for groundwater underlying the site below a depth of approximately 200 feet include municipal, agricultural, and industrial water supply (6,22). Thirteen municipal wells are located within 4 miles of the Dysan site; 8 of these wells are operated by the city of Santa Clara, and 5 are operated by the city of Sunnyvale (28,29). The city of Santa Clara operates a 28-well, blended system which serves a population of 90,000 (30,31). Santa Clara drinking water well SC-19 is the closest active well to the site; this well is located approximately 1.6 miles southeast of the site (28,31,32). The city of Sunnyvale has five wells within 4 miles of the site, and 112,000 people are served by this blended system (29,33). Both Santa Clara and Sunnyvale import water from San Francisco's Hetch Hetchy Reservoir and from SCVWD's Riconada Treatment Plant to supplement the water produced by municipal wells (30,33). The city of Cupertino has no wells within 4 miles of the Dysan site (34).

Within 4 miles of the Dysan site, all municipal wells draw water from the deep aquifer at depths greater then 175 feet (6,22,23,35). Given the presence of a thick, continuous clay sequence between the upper and lower aquifer, the lack of any known conduit wells within 2 miles of the site, and the apparent containment of the contaminant plume by the groundwater treatment system, the potential for a release of contaminants to the drinking water aquifer appears to be low (6,15,22,23,27,35).

5.3 SURFACE WATER

At the Dysan site, an observed release to surface water has not been documented, and the potential for such a release appears to be low (4,6). The Dysan site is in a highly-developed industrial park, an area where paving and engineered drainage systems predominate. An earthen levee 10 feet high is present at the rear of site; this levee serves as a barrier between the site and Calabazas Creek. The soil and groundwater contamination in the former tank farm is subsurface, and containment, in the form of fill and asphalt, is in place over this contamination (4).

Calabazas Creek, which is adjacent to the site, is directly connected to San Francisco Bay and experiences tidal fluctuations. It was suggested by a consultant for Dysan that the local groundwater gradient might be affected by this tidal action and might allow for migration of subsurface contaminants into Calabazas Creek. Given that the elevation of the bottom of Calabazas Creek is higher than the uppermost limit of contamination, the potential for migration of subsurface contamination into Calabazas Creek as a result of tidal action appears to be low (6).

Two groundwater monitoring wells have been installed on each of the levees bordering Calabazas Creek to determine if there has been a subsurface migration of contaminants toward Calabazas Creek; Figure 3-1 presents the locations of these monitoring wells, while historical groundwater sampling data for these wells is presented in Appendix C (6,26). These wells have been sampled for MEK, IPA, cellosolve, diglyme, and acetone on a regular basis. Specifically, the wells have been sampled for MEK since August 1982, for IPA since June 1986, and for

acetone since November 1986; these contaminants have been below detection limits in both wells since December 1987 for acetone, since October 1987 for IPA, and since January 1988 for MEK (26).

The potential for a release of chemicals stored on site to surface water appears to be low. Containment in the form of diking is present in chemical storage areas. An earthen levee effectively separates Calabazas Creek from the site, and would prevent any overland flow from reaching Calabazas Creek. Any overland flow from the Dysan site would likely be intercepted by storm drains before reaching any of the other surface water bodies in the area (4).

Calabazas Creek is used for recreation, fish migration and habitat, wildlife habitat, and aesthetic enjoyment (2,6). Surface waters in the Santa Clara area are not used for drinking water purposes (36,37). Numerous sensitive environments or species are in the vicinity of the site, many of which are associated with the unique salt marsh environment found along the fringes of San Francisco Bay (38). The San Francisco Bay National Wildlife Refuge is located 2.5 miles north of the site (2). The 2-year, 24-hour rainfall for the Santa Clara area is 2.2 inches (39).

5.4 AIR

It appears that a release of hazardous materials to air has as occurred in the past at the Dysan site. This release occurred prior to March 1988 (21). Specifically, Dysan was repeatedly cited by BAAQMD for releasing VOCs in excess of the permitted level, which was 22 pounds/day of total VOCs per coating line (17,21). The sources contributing to the release included vapor degreasers, coating machines, the scrubbing system, and the air-stripping tower. Also, Dysan was cited for not meeting 95 per cent scrubber efficiency as required in the permit issued by BAAQMD (5,17,21). MEK was the primary VOC released to air (5). E & E FIT was unable to determine the quantity of materials released to air in the past at the Dysan site. BAAQMD issued an abatement order to Xidex in August 1988; subsequent inspections by BAAQMD show Xidex has been in compliance with permit requirements (16,17).

At present, the potential for an air release at the Dysan site appears to be low. The subsurface soil and groundwater contamination at the Dysan site is another possible source for an air release at the Dysan site. However, this contamination is subsurface and appears to be contained by fill and asphalt paving (4,6). It appears that the potential for an air release from this source is low. Chemicals received as raw materials and wastes generated during the manufacturing process are also potential sources for an air release. Virgin solvents, including cyclohexanone and MEK, are received in 55-gallon drums; these materials are stored in areas with diking (1,4). Emission control devices are in place on equipment in which these compounds are used (3,4). Wastes generated on site are stored in sealed 55-gallon drums for pick-up by a contracted waste hauler, and the potential for an air release from this source appears to be low (4).

Approximately 250 employees work at the site (5). Approximately 11,600 people live within 1 mile of the Dysan site, and 170,000 people live within 4 miles of the Dysan site (40,41). The nearest residential area is located 0.5 miles from the site (4). Seven sensitive environments or species are near the site and are presented in Table 5-3 (38).

TABLE 5-3
SENSITIVE ENVIRONMENTS AND SPECIES

Environment/Species	Distance from Site (miles)	Federal or State Status
California Clapper Rail	2 to 3	S3
Burrowing Owl	3 to 4	S2
Salt Marsh Yellowthroat	2 to 3	S2
Salt Marsh Harvest Mouse	3 to 4	S2
Pt. Reyes Bird's Beak	2 to 3	S2.1
North Coastal Salt Marsh	2 to 3	S2
San Francisco Bay National Wildlife Refuge	2 to 3	*

*--The San Francisco Bay National Wildlife Refuge does not have a letter designation as the other species/environments do.

5.5 ON-SITE

The potential for on-site exposure to contaminants appears to be low. Soil and groundwater contamination is subsurface and appears to be adequately contained by fill and asphalt, although the exact thickness of the fill is not known. Access to chemical receiving, storage, and use areas is controlled by fencing and Xidex security. The site perimeter is not fenced, but it is patrolled by Xidex security 24 hours per day. The groundwater extraction and treatment system is also enclosed; the air-stripping tower is in a locked enclosure, and the extraction wells have locking covers in place (4).

The total population within 1 mile of the site is approximately 11,600 people (40,41). Land use of the surrounding area is primarily commercial/industrial. The nearest residence is located 0.5 miles from the site. There are no schools or parks on or near the site (4). Xidex plans to discontinue operations at the site in the near future due to lack of business. A lay-off of the majority of the facility's workers will occur by October 1990. However, remedial activities will continue until RWQCB has declared the site clean-closed (5).

6. SUMMARY OF FIT INVESTIGATIVE ACTIVITIES

6.1 AGENCIES CONTACTED

A file search was performed at RWQCB, and a meeting was held with the current project officer (14). BAAQMD provided E & E FIT with a violation history of the Dysan site (17,21). A review of the actual violation notices and other file information was then conducted at BAAQMD's office. Phone contact was made with SCVWD, SCCHD, the City of Santa Clara, and DHS (11). SCCHD has no specific involvement with the Dysan site although information was provided on small (from 5 to 199 service connections) water well systems in the Santa Clara Valley (42). DHS has a very small file on the site, and this file was reviewed; no DHS project officer is currently assigned to the site (20). SCVWD also has a file on the site; this agency provided information on groundwater in the Santa Clara Valley (23).

6.2 RECONNAISSANCE OBSERVATIONS

A site reconnaissance was performed for the Dysan site on July 19, 1990. E & E FIT representatives Brad Webb and Linda Stone met with Chris van der Woerd and Frank Whisenant of Xidex Corporation. After an informational meeting conducted in Xidex's offices, a walking tour of the site was performed. The following observations were made on this walking tour (4).

- With the exception of ornamental landscaping, the site is completely paved;
- The site perimeter is not fenced;
- The site is separated from Calabazas Creek by an earthen levee approximately 10 feet high. The levee is used for recreational purposes such as cycling or jogging by workers in the surrounding industrial park;
- Current housekeeping practices at the site appeared to be good, with the exception of a small quantity of waste material stored on a pallet outside. The material was to be picked up by a

waste hauler for disposal. However, the material was stored on a concrete pad above a ramp leading directly to a storm drain; no secondary containment was in place around the stored material; and

- Within the manufacturing area, the concrete floors were coated with polyethylene, and sumps for spill control were present. Secondary containment in the form of concrete diking was present in chemical receiving areas.

6.3 SAMPLING

A determination was made by E & E FIT with EPA concurrence that sampling was not appropriate at the Dysan site for this CERCLA Screening Site Inspection. Existing information and analytical data are sufficient to characterize the site with respect to EPA's Hazard Ranking System.

7. EMERGENCY RESPONSE CONSIDERATIONS

The National Contingency Plan [40 CFR 300.415(b)(2)] authorizes the Environmental Protection Agency to consider emergency response actions at those sites which pose an imminent threat to human health or the environment. Hazardous materials stored or used on the Dysan site appear to be adequately contained. Contaminated soil and groundwater are covered by fill and asphalt. As such, there appears to be little risk posed to human health or the environment by the Dysan site. Although the site is not fenced, it is patrolled 24 hours per day by Xidex security, which minimizes access. Given that the materials currently used on site have low flammability, the risk of future fire, explosion, or on-site exposure is believed to be minimal (4).

8. SUMMARY OF HRS CONSIDERATIONS

The Dysan site, located at 5440 Patrick Henry Drive in Santa Clara, California, is a 9-acre site located approximately 4 miles south of San Francisco Bay (2,6). The area surrounding the site is an industrial park. Dysan began manufacturing rigid discs at this site in 1979. Xidex purchased the Dysan site in 1985 but continued to manufacture the same product using the same process (3). The site is completely paved. An earthen levee approximately 10 feet high separates the site from Calabazas Creek, located 100 feet west of the site (4).

In 1982, Dysan detected methyl ethyl ketone (MEK) contamination in the underground tank farm at its 5200 Patrick Henry Drive facility. Site characterization work at 5440 Patrick Henry Drive revealed that contamination of both soil and shallow groundwater had occurred in the area surrounding the underground tank farm. The contaminants detected in both soil and groundwater included MEK, isopropyl alcohol (IPA), cellosolve, acetone, cyclohexanone, diethylene glycol methyl ether (diglyme), and diesel. Sampling did not detect contamination in Calabazas Creek (6).

The underground tank farm contained two 10,000-gallon, fiberglass, diesel storage tanks; one 7,300-gallon, steel, supply MEK tank; and one 7,300-gallon, steel, waste solvent tank (6). The four underground tanks were excavated in 1988 (13). A groundwater extraction and treatment system has been operating intermittently since 1986 (1,5,6).

Dysan and Xidex have been cited repeatedly by the Bay Area Air Quality Monitoring District (BAAQMD) for air quality permit violations at this site; Xidex has since brought the facility into compliance with the requirements set forth in the air quality permits issued by BAAQMD (16,17). A past release of hazardous materials to air appears to have occurred at the Dysan site, but the potential for a release to air at present appears to be low (4,17). Additionally, given the subsurface

nature and apparent containment of contaminants in soil and shallow groundwater at the site, the potential for a release to surface water or for on-site exposure also appears to be low (4).

An observed release of hazardous materials to shallow groundwater has occurred at the Dysan site. However, the contaminated shallow groundwater is not used for drinking water purposes (6). Within 2 miles of the site, stratigraphic conditions do not appear to allow for aquifer interconnection, nor do any known conduit wells exist that would allow contaminants to migrate from the upper aquifer to the lower aquifer (6,22,23).

The significant rHRS factors associated with the Dysan site are as follows:

- Although a release from the site to shallow groundwater has occurred, the potential for a release of contaminants to the drinking water appears to be low due to the apparent lack of interconnection of aquifers;
- There is a low potential for on-site exposure or a release to surface waters;
- A large waste quantity can be documented for the Dysan site as two 7500-gallon, solvent tanks appear to have leaked; and
- Past releases of hazardous substances to the air appear to have occurred at the site, but the present potential for a release to air appears to be low.

9. EPA RECOMMENDATION

	Initial	Date
No Further Remedial Action Planned under CERCLA	RL	12/18/90
Higher-Priority Listing Site Inspection under CERCLA	_____	_____
Lower-Priority Listing Site Inspection under CERCLA	_____	_____
Defer to other authority (e.g., RCRA, TSCA, NRC, etc.)	_____	_____

Notes:

10. REFERENCES

1. Van der Woerd, Chris, Xidex Corporation, and Brad Webb, Ecology and Environment, Inc.'s Field Investigation Team (E & E FIT), telephone conversation, June 25, 1990.

2. U.S. Geological Survey, maps of Cupertino, Milpitas, Mountain View, and San Jose West, California, 7.5-minute quadrangles, 1961 (photorevised 1980).

3. Van der Woerd, Chris, Xidex Corporation, and Brad Webb, Ecology and Environment, E & E FIT, telephone conversation, September 24, 1990.

4. Van der Woerd, Chris and Frank Whisenant, Xidex Corporation, and Brad Webb and Linda Stone, E & E FIT, Site Reconnaissance Report, July 21, 1990.

5. Van der Woerd, Chris, Xidex Corporation, and Brad Webb, E & E FIT, telephone conversation, August 31, 1990.

6. ICF Kaiser Engineers, "Final Remedial Action Plan for the 5200 and 5440 Patrick Henry Drive Facilities, Santa Clara, California," prepared for Xidex Corporation, September 1989.

7. Xidex Corporation, City of Santa Clara Hazardous Material Inventory Statement, May 29, 1990.

8. IT Enviroscience, "Report on the Spread of Solvent Contamination (Phase IA)," prepared for Dysan Corporation, August 1982.

9. IT Enviroscience, "Proposal for Design and Construction of a Heated Air Stripper and Incinerator System to Treat Groundwater at Dysan Buildings 5440 and 5200," July 11, 1984.

10. Questa Engineering Corporation, to Eric Terhorst, Dysan Corporation, letter regarding pump test on Recovery Well R-3 at Dysan Building 5440, November 11, 1985.

11. California Regional Water Quality Control Board (RWQCB), San Francisco Bay Area Region, "Waste Discharge Requirements (Site Cleanup Requirements) for: Xidex Corporation, Patrick Henry Drive Facility, Santa Clara, California," Order No. 85-131, November 1985.

12. Terhorst, Eric, Dysan Corporation, to Bob Marek, RWQCB (S.F. Bay Region), letter re: operation of the groundwater extraction system at 5440 Patrick Henry Drive, December 15, 1986.

13. Xidex Corporation, "Tank Closure Report for Xidex Corporation Facilities located at 5200, 5301, and 5440 Patrick Henry Drive, Santa Clara, CA," November 28, 1988.

REFERENCES (cont.)

14. Wolfenden, John, RWQCB, and Brad Webb, E & E FIT, telephone conversation, June 21, 1990.

15. Godwin, Mike, RWQCB and Brad Webb, E & E FIT, telephone conversation, June 26, 1990.

16. Sachsin, Alex, Bay Area Air Quality Management District (BAAQMD), and Brad Webb, E & E FIT, telephone conversation, September 6, 1990.

17. Hearing Board of BAAQMD, "BAAQMD v. Xidex Corporation, Order for Abatement, Docket No. 1884," August 25, 1988.

18. California Department of Health Services (DHS), Toxic Substances Control Division, Expenditure Plan for the Hazardous Subtance Cleanup Bond Act of 1984, revision No. 4, revised January 1989.

19. Resource Conservation and Recovery Act Database, May 8, 1989.

20. Cruz, Doris, DHS, and Brad Webb, E & E FIT, telephone conversation, August 29, 1990.

21. Hearing Board of BAAQMD, "BAAQMD v. Xidex Corporation, Accusation of Violation and Application for an Order for Abatement, Docket No. 1884," March 4, 1988.

22. DHS, RWQCB #2, Santa Clara County Health Department, Santa Clara Valley Water District (SCVWD), U.S. Environmental Protection Agency (EPA), Groundwater and Drinking Water in the Santa Clara Valley: A White Paper, October 1984.

23. Iwamura, Tom, SCVWD, and Brad Webb, E & E FIT, telephone conversation, October 4, 1990.

24. Federal Register, Vol. 53, No. 247, Proposed Rules, 52029-52030, December 23, 1988.

25. U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Environmental Satellite Data and Information Service, National Climatic Data Center, Comparative Climatic Data for the United States Through 1985, Nashville, TN.

26. Xidex Corporation, "Quarterly Report for Xidex Corporation Facilities Located at 5200 and 5440 Patrick Henry Drive, Santa Clara, California, 2nd Quarter 1990," July 12, 1990.

27. IT Enviroscience, "Report on the Vertical Extent of Solvent Contamination," prepared for Dysan Corporation, March 1, 1983.

28. City of Santa Clara, Well location map, supplied by Don Massee, City of Santa Clara Water Department.

REFERENCES (cont.)

29. James, Ed, City of Sunnyvale, and Ayn Schmidt, EPA Toxics and Waste Management Division, Record of telephone conversation, July 23 1984.

30. Grodeno, John, City of Santa Clara Water Department, and Orlando J. Mauricio, ICF Technology, telephone conversation, October 4, 1988.

31. Massee, Don, City of Santa Clara, and Brad Webb, E & E FIT, telephone conversation, October 4, 1990.

32. Dulude, Mike, City of Santa Clara, and Brad Webb, E & E FIT, telephone conversation, October 4, 1990.

33. Disgue, Larry and John Linda, City of Sunnyvale Water Department, and Tom Beer, E & E FIT, telephone conversation, April 6, 1987.

34. McKee, Ken, City of Cupertino Water Department, and Ayn Schmit, EPA Toxics and Waste Management Division, telephone conversation, July 26, 1984.

35. Weisend, Bill, City of Sunnyvale Public Works Department, and Brad Webb, E & E FIT, telephone conversation, June 25, 1990.

36. Cournoyer, Leo, SCVWD, and Julia Diridoni, ICF Technology, telephone conversation, February 18, 1988.

37. Morse, Teddy, Santa Clara Valley Water District, SCVWD, and Orlando J. Mauricio, E & E FIT, telephone conversation, July 21, 1987.

38. California Department of Fish and Game, Natural Diversity Data Base, San Jose West, Mountain View, Milpitas, and Cupertino Quadrangles, expired April 1, 1990.

39. U.S. Department of Commerce, NOAA, National Weather Service, NOAA Atlas II, Precipitation-Frequency Atlas of the Western United States, Volume IX-California, p. 37, Silver Spring, Maryland, 1973.

40. California Department of Finance, 1980 Census of Population and Housing, Summary Tape File.

41. EPA Office of Toxic Substances, Graphical Exposure Modeling System, March 1989.

42. Hildebrand, Glen, Santa Clara County Health Department, and Brad Webb, E & E FIT, telephone conversation, July 5, 1990.

APPENDIX A

CONTACT LOG AND REPORTS

CONTACT LOG

Facility Name: Dysan Corporation
Facility ID: CAD063541445

Name	Affiliation	Phone #	Date	Information
Larry Disgue John Linda	City of Sunnyvale	408-730-7500	4/6/87	See Contact Report.
Teddy Morse	Santa Clara Valley Water District (SCVWD)	408-265-2600	7/21/87	See Contact Report.
Leo Cournoyer	SCVWD	408-265-2600	2/18/88	See Contact Report.
John Grodeno	City of Santa Clara	408-984-3183	10/4/88	See Contact Report.
John Wolfenden	Regional Water Quality Control Board (RWQCB)	415-464-0689	6/21/90	See Contact Report.
Mike Clarke	SCVWD	408-265-2600	6/21/90	Need to complete a request form for information.
Chris van der Woerd	Xidex Corp.	408-970-6453	6/25/90	See Contact Report.
Bill Weisend	City of Sunnyvale	408-730-7510	6/25/90	See Contact Report.
Mike Godwin	RWQCB	415-464-1255	6/26/90	See Contact Report.
Christine Shaufelberger	Bay Area Air Quality Management District (BAAQMD)	415-771-6000	7/3/90	Told me to FAX a request for site violation history to Will Taylor at 415-928-8560.
Glen Hildebrand	Santa Clara County Health Department	408-299-5930	7/5/90	See Contact Report.

bw/dysan/clcr

CONTACT LOG (Cont.)

Facility Name: Dysan Corporation
Facility ID: CAD063541445

Name	Affiliation	Phone #	Date	Information
Chris van der Woerd, Frank Whisenant	Xidex Corp.	408-970-6453 408-727-8855	7/19/90	See Reconnaissance Report.
Will Taylor	BAAQMD	415-771-6000	8/22/90	Set up file review for August 28, at 9:30 am.
Doris Cruz	California Department of Health Services	415-540-3738	8/29/90	See Contact Report.
Chris van der Woerd	Xidex Corp.	408-970-6575	8/31/90	See Contact Report.
Alex Sachsin	BAAQMD	415-771-6000	9/6/90	See Contact Report.
Chris van der Woerd	Xidex Corp.	408-970-6575	9/24/90	See Contact Report.
Mike Dulude	City of Santa Clara	408-984-3183	10/4/90	See Contact Report.
Don Massee	City of Santa Clara	408-984-3183	10/4/90	See Contact Report.
Tom Iwamura	SCVWD	408-927-0710	10/4/90	See Contact Report.

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: City of Sunnyvale		
DEPARTMENT: Water Department		
ADDRESS/CITY: Sunnyvale		
COUNTY/STATE/ZIP: Santa Clara, California		
CONTACT(S)	**TITLE**	**PHONE**
1. Larry Disgue		408-730-7500
2. John Linda		
E & E PERSON MAKING CONTACT: Tom Beer		**DATE:** 4/6/87
SUBJECT: City of Sunnyvale Well System		
SITE NAME: Dysan Corporation-5440 Patrick Henry		**EPA ID#:** CAD063541445

City wells supply all of the City of Sunnyvale. Resident population is approximately 112,000 people plus a large influx of daily workers for the aerospace and semiconductor industries. At present, wells supply 26% of the water. Forty-eight percent is from the Hetch-Hetchy and the remaining 26% from the Santa Clara Valley Irrigation District. The wells are in a fully integrated supply system with 30,000 metered service connections. The wells are perforated from 250 to 700 feet. Mr. Linda related two interesting incidents:

1) In 1985 an old, improperly abandoned well collapsed beneath a housing development at the corner of Torrington and Hellenbeck Road.

2) In 1986 an old 12 inch agricultural well near the corner of Moffett Park Drive and Borregas Avenue started artesian flow. The well was plumbed to a depth of 240 feet.

* This contact report was completed as part of an investigation of the Signetics Corporation site in Sunnyvale, CA by ICF Technology, Inc. (September 1987).

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Santa Clara Valley Water District (SCVWD)		
DEPARTMENT:		
ADDRESS/CITY: 5750 Almaden Expressway, San Jose		
COUNTY/STATE/ZIP: Santa Clara, California 95118		
CONTACT(S)	**TITLE**	**PHONE**
1. Teddy Morse		408-265-2600
2.		ext. 279
E & E PERSON MAKING CONTACT: Orlando J. Mauricio*		**DATE:** 7/21/87
SUBJECT: Surface water		
SITE NAME: Dysan Corporation-5440 Patrick Henry		**EPA ID#:** CAD063541445

There are no artificial recharge systems for any creeks or rivers near the City of Santa Clara because of the hazardous waste handled by the surrounding industry. There is no artificial recharge in Calabazas Creek. Only natural recharge occurs into the upper aquifer of Santa Clara Valley. The surface water in Santa Clara is not used for drinking water purposes.

SCVWD has 16 recharge ponds, most are located in South San Jose. The pond furthest north is in Campbell. The ponds recharge the aquifers which provide drinking water. The Guadalupe River feeds the Alameda and Guadalupe Ponds which recharge the aquifers in South San Jose.

Tom Iwamura (ext. 386), Environmental Geologist, should be contacted for further information.

* This contact report was completed as part of a Preliminary Assessment of the Monolithic Memories, Inc. site in Santa Clara, CA by Ecology and Environment, Inc.'s Field Investigation Team (October 1987).

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Santa Clara Valley Water District		
DEPARTMENT:		
ADDRESS/CITY: 5750 Almaden Expressway, San Jose		
COUNTY/STATE/ZIP: Santa Clara, California 95118		
CONTACT(S)	**TITLE**	**PHONE**
1. Leo Cournoyer		408-265-2600
E & E PERSON MAKING CONTACT: Julia Diridoni (ICF)*		**DATE:** 2/18/88
SUBJECT: Surface water and groundwater in the San Jose area		
SITE NAME: Dysan Corporation - 5440 Patrick Henry		**EPA ID#:** CAD063541445

The Santa Clara Valley Water District (SCVWD) is a groundwater recharge operation which sells surface supplies of water to 19 purveyors in the Santa Clara Valley. During the summer months, surface waters such as San Tomas Creek, Los Gatos Creek, Coyote Creek and the Guadalupe River are dammed. These waters are diverted to the nine reservoirs and/or three treatment plants to be stored, blended with imported water, and distributed by the Water District. Sources of the imported water are Hetch-Hetchy and water purchased from the state and federal government. Surface water uses are limited to instream recharge and on a small scale, agricultural irrigation.

The SCVWD has no groundwater production in San Jose. It owns/rents approximately 12 monitor wells within the San Jose city limits. The district serves three purposes: as a storage basin, a transporter of water, and a treatment process operator. This treatment process, according to Mr. Cournoyer, is such that nonpotable water that enters the aquifer system at one end may come out of the system as potable water later on. This results from the geologic structure of the aquifer system: granular alluvial deposits divided by a clay layer into two zones.

The upper aquifer zone is polluted by point sources such as the semi-conductor industry. The lower aquifer zone, a source of potable groundwater in the basin, is protected from contamination by the clay layer separating the two zones. SCVWD is currently sealing all non-active wells in the valley. Additionally, an attempt to seal all potential conduit wells (wells that penetrate both upper and lower aquifer zones) is ongoing.

* This contact report was completed as part of a Preliminary Assessment of Red Star Laundry site in San Jose, California by ICF Technology, Inc. (March 1988).

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: City of Santa Clara		
DEPARTMENT: Water Department		
ADDRESS/CITY: 1500 Warburton Avenue, Santa Clara		
COUNTY/STATE/ZIP: Santa Clara, California 95050		
CONTACT(S)	**TITLE**	**PHONE**
1. John Grodeno		408-984-3183
2.		
E & E PERSON MAKING CONTACT: Orlando J. Mauricio (ICF)*		**DATE:** 10/4/88
SUBJECT: City of Santa Clara Water Supply		
SITE NAME: Dysan Corporation-5440 Patrick Henry		**EPA ID#:** CAD063541445

Twenty-eight wells provide the city with 70% of their water supply. an additional 15% is supplied by Hetch-Hetchy Reservoir and the remaining 15% is supplied by the Rinconada Treatment Plant which is operated by the Santa Clara Valley Water District. The waters are not "intentionally" blended, but mixing occurs at the connection points. The population of the City of Santa Clara is approximately 90,000.

* This contact report was completed as part of a CERCLA Site Inspection of Almaden Quicksilver County Park site in San Jose, CA by ICF Technology, Inc. (October 1988).

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Regional Water Quality Control Board (RWQCB)		
DEPARTMENT: 1800 Harrison Street, Suite 700		
ADDRESS/CITY: Oakland		
COUNTY/STATE/ZIP: Alameda, California		
CONTACT(S)	**TITLE**	**PHONE**
1. John Wolfenden	Project Manager	415-464-0689
2.		
E & E PERSON MAKING CONTACT: Brad Webb		**DATE:** 6/21/90
SUBJECT: Status of Dysan site at 5440 Patrick Henry Drive		
SITE NAME: Dysan Corporation-5440 Patrick Henry		**EPA ID#:** CAD063541445

Mr. Wolfenden said that this site is a low priority in his opinion. Currently, three Dysan sites are being overseen by RWQCB. 5200 Patrick Henry Drive is currently showing non-detects. 5301 Patrick Henry is no longer a problem. The treatment system at 5440 Patrick Henry Drive is currently being repaired. He has seen a decrease in contaminant concentrations over time, and all underground tanks were removed over a year ago. Hours to review files are 10:00 a.m. to 4:00 p.m., Tuesday through Thursday.

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Xidex Corporation		
DEPARTMENT: Environmental Affairs		
ADDRESS/CITY: Santa Clara		
COUNTY/STATE/ZIP: Santa Clara, California		
CONTACT(S)	**TITLE**	**PHONE**
1. Chris van der Woerd	Manager	408-970-6453
2.		
E & E PERSON MAKING CONTACT: Brad Webb		**DATE:** 6/25/90
SUBJECT: Site History, past/present/operations		
SITE NAME: Dysan Corporation-5540 Patrick Henry		**EPA ID#:** CAD063541445

Mr. van der Woerd said that this facility is involved in the manufacturing of the memory portion of hard disk drives of computers. This involves applying a very thin magnetic coating composed of iron oxide with some aluminum oxide that is affixed with binders. These disks are then baked and polished.

All underground tanks on site were removed in 1988. The actual removal was overseen by the Santa Clara Fire Department with inspectors present at the removal of each tank. From 1979 to 1982, the underground tanks were leaking. In 1980-1981, RWQCB sent out a survey about underground tanks. When the contamination was discovered in 1982, use of the tanks was stopped immediately. The tanks looked "good" when inspected after their removal. Any releases are very old (pre-1982). The tanks were not tested prior to their removal. One tank containing diesel had a spill which occurred during installation of the tank. 55-gallon drums have been used to contain wastes since 1982. During tank removal, extensive sampling was done, but no soil was removed offsite.

There are two extraction wells on site. Shortly after Mr. van der Woerd started working at the site, the underground tanks were removed. In order to prevent silt generated during the removal process from getting into the stripper, the system was shut down in early 1989, Xidex wanted to restart the treatment system. It was discovered that no permit to run the stripping system existed. A permit to run this system was just recently granted. The site has history of air quality permit violations.

It is believed that a significant amount of bacterial activity is occurring in their area of contamination. Mr. van der Woerd thinks that the operation of the treatment system may have inhibited the activity of naturally occurring bacteria by reducing its population by physically

removing the bacteria. Since the air stripping system has been shut down, bacterial populations have increased resulting in a decline in contaminant levels. Once contaminant levels are reduced to 100 parts per million (ppm), the bacteria are able to have their maximum effect.

Previously, sampling was done monthly and a bimonthly report was produced. In December 1989, RWQCB agreed to quarterly sampling and report preparation. Sampling is performed by Exceltech of Fremont.

Mr. van der Woerd believes that contamination at present is limited to three wells with the greatest concentration being 2 ppm. At the time of the last sampling, only one well exceeded the cleanup standard. The Final Remedial Action Plan was completed in September 1989. A site reconnaissance was scheduled for Thursday, July 19, 1990 at 10:00 a.m.

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: City of Sunnyvale		
DEPARTMENT: Public Works		
ADDRESS/CITY: Sunnyvale		
COUNTY/STATE/ZIP: Santa Clara, California 95050		
CONTACT(S)	**TITLE**	**PHONE**
1. Bill Weisend	Field Services Superinten.	408-730-7510
2.		
E & E PERSON MAKING CONTACT: Brad Webb		**DATE:** 6/25/90
SUBJECT: City of Sunnyvale water sources/use		
SITE NAME: Dysan Corporation-5440 Patrick Henry		**EPA ID#:** CAD063541445

Mr. Weisend stated that Sunnyvale obtains water from three sources: Hetch-Hetchy Reservoir, the Santa Clara Valley Water District (SCVWD) and city-owned municipal wells. The sources of the SCVWD water are the South Bay Aqueduct (State Water Project) and the San Felipe Pipeline (San Luis Reservoir), and some local reservoirs. These local basins are primarily used for groundwater recharge. The Sunnyvale municipal system is a blended system with well water accounting for 25% of the supply on a yearly basis. The well water is pumped directly into the distribution system and blended with the other water. Hetch-Hetchy water and SCVWD water is treated before arriving in Sunnyvale. There is no municipal water treatment plant in Sunnyvale.

The relative proportions of water from each source vary with regard to location. The northern portion of Sunnyvale uses primarily Hetch-Hetchy water blended with a small amount of well water. The south central section of the city is the biggest user of well water, which is blended with SCVWD water. This is a blended system with approximately 30,000 service connections. Water utilization in Sunnyvale is approximately 55% residential and 45% commercial/industrial/irrigation. The municipal wells are screened at a minimum of 175 feet below ground surface. All city wells are monitored according to the provisions of AB1803, which enumerates standards for drinking water in California. The city has no contamination problems with any of its wells, nor has it had any problems with them in the past.

Mr. Weisend feels that there is a very limited potential for contaminants to travel from one aquifer to another and get into the potable supply. He said this is demonstrated by the Signetics site, where a contaminant plume has been in place for a number of years in

the vicinity of three municipal wells. Thus far, no contamination has been detected in any of the wells. He feels the highest potential for inter-aquifer communication exists in the hills at the southern end of the city. He says this is evidenced by the groundwater recharge basins located there. The further north one goes, the thicker and more extensive thick clay aquitards become. He feels that Mountain View is probably in another groundwater basin.

Mr. Weisend said there are some irrigation uses within Sunnyvale including the Twin Creeks softball complex (13 softball fields and 2 football fields), the Community Center, and a cherry orchard. All of these locations are greater than 5 acres in size.

He believes that Moffett Field is a direct customer of the the City of San Francisco (Hetch Hetchy). He is unsure about water suppliers for Ames Research Center and Lockheed. He referred me to Ron Caton in the Finance/Reference Department (408-730-7603).

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Regional Water Quality Control Board		
DEPARTMENT:		
ADDRESS/CITY: 1800 Harrison Street, Suite 700		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Mike Godwin		415-464-1255
2.		
E & E PERSON MAKING CONTACT: Brad Webb		**DATE:** 6/26/90
SUBJECT: Status of Site		
SITE NAME: Dysan Corporation-5540 Patrick Henry		**EPA ID#:** CAD063541445

Mr. Godwin first recommended that I obtain a copy of RWQCB's South Bay Quarterly Report as it gives much information about the current status of RWQCB sites. Also recommended was the South Bay Map published in Fall 1989 showing all of RWQCB's sites in the South Bay. These are available from City Blue (415-444-6771) in Oakland.

The final Remedial Action Plan was completed September 30, 1989. It is expected by RWQCB that the current configuration of the extraction system will sufficiently control the plume. The site is located on distal fan deposits. Mr. Godwin is aware of no additional conduit wells in the Santa Clara Valley.

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Santa Clara County Health Department		
DEPARTMENT: Water Program		
ADDRESS/CITY: Santa Clara		
COUNTY/STATE/ZIP: Santa Clara, California		
CONTACT(S)	**TITLE**	**PHONE**
1. Glen Hildebrand		408-299-5930
2.		
E & E PERSON MAKING CONTACT: Brad Webb		**DATE:** 7/5/90
SUBJECT: Small system wells in Santa Clara		
SITE NAME: Dysan Corporation-5440 Patrick Henry		**EPA ID#:** CAD063541445

Mr. Hildebrand said that the Santa Clara Health Department has oversight on small water systems having 5 to 199 connections. Several categories of users may fall under their jurisdiction including restaurants, home clusters, and schools in rural areas. Small system water quality is regularly monitored in a manner similar to municipal systems (AB1803). He believes that Santa Clara University is hooked up to the public water system. A well-sealing program (for conduit wells) has been undertaken by the Santa Clara Valley Water District (SCVWD). Larry Wilson is the contact person for this program, and he is in the SCVWD's Camden office at 408-927-0710.

bw/dysan/clcr

SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT

Ecology and Environment, Inc.		
Field Investigation Team (FIT)		
160 Spear Street, Suite 1400		
San Francisco, California 94105		
(415) 777-2811		
E & E PERSON(S) CONDUCTING INTERVIEW AND MAKING OBSERVATIONS:		
Brad Webb, Linda Stone		
FACILITY REPRESENTATIVE(S):	**TITLE:**	**PHONE:**
Chris van der Woerd	Environmental Affairs Mgr.	408-970-6453
Frank Whisenant	Facilities Manager	408-727-8855
SITE NAME: Dysan Corporation-5440 Patrick Henry Drive		**DATE:**7/19/90
CITY/STATE: Santa Clara, California		**EPA ID#:** CAD063541445

The following information was obtained during the interview:

Mr. van der Woerd provided E & E FIT a current site map as well as a City of Santa Clara Hazardous Materials Inventory for the site. The inventory covers the period from 3/29/89 to 3/29/90.

During the 1970s, the site was open, unused land. It might have been used as a dairy. The deposits underlying the site are alluvial. The facility was originally built for Dysan Corporation, which was the first occupant. In 1978 and 1979, the levees that separate Calabazas Creek from the site were constructed as was the building. The levees are necessary due to the four-foot tidal fluctuation of Calabazas Creek.

The four underground tanks were installed during the construction of the facility in 1978-79. The site has always been completely paved. The site is not enclosed by a fence. There were two underground diesel tanks as well as two underground solvent tanks. When the tanks were removed, the excavated soil was put back into the excavation area. The balance of material used to fill the hole was imported clean fill dirt. The concrete pad that the tanks sat on was not removed. The pipelines attached to the tank were sealed, and there are monitoring wells adjacent to the run of the pipes.

bw/dysan/recon

Air quality permits were ignored for a long period of time. New air emission sources were added without filing for the proper permits with the Bay Area Air Quality Monitoring District (BAAQMD). Xidex now complies with permitting. A carbon adsorption system for the vapor degreaser was installed in 1988 and 1989.

From 1985-88, the Manager of Environmental Affairs operated the air-stripping portion of the groundwater treatment system without abatement devices. In 1988, an emissions abatement system was installed on the groundwater treatment system.

Since 1982, wastes and virgin materials have been stored on site in drums. A contracted waste hauler, Romic Chemical Corporation, picks up the wastes weekly. The drums of waste material are kept inside the mix room. The floor in this room is cement. For waste materials, forty drums of wastes is the maximum number on site at any one time; the average number of drums containing wastes on site is twenty. Wipe cloths are a solid waste, and they are picked up by Chem Waste Management for disposal at Kettleman Hills.

The manufacturing process involves putting aluminum oxide into a binder and applying it. Batches of coating are approximately 250 to 300 gallons in size. MEK, diglyme, and cyclohexanone are also part of the mix. This mixing occurs on site.

Monitoring well sampling is done quarterly at present. The analyses run are EPA Methods 602 and 624. The detection limits are better on the 602 analysis. At present, only three wells show anything above detection limits. It is believed that at concentrations less than 100 ppm, the bacteria bloom, which results in increased activity and a continued decrease in contaminant levels. When the operation of the treatment system resumes, Xidex will use the treated water as "makeup water" for the facility's operations.

At present, there are 120 employees on site. Previously, the work force had been as large as 1,000 employees.

The following observations were made during the site reconnaissance visit:

The rear of the site is separated from Calabazas Creek by a levee that is approximately 10 feet high. The levee is utilized at the noon hour by recreational joggers and cyclists. There is no fence separating the levee and the creek from the site. The four underground tanks were located at the base of the levee. The excavated area was delineated by new asphalt. One extraction well was present at each end of the former tank farm. Two monitoring wells (B33 and B35) are located on the eastern levee.

The entire area around the site, with the exception of ornamental planters is paved. Storage of cardboard and other non-hazardous refuse occurs at the rear area of the site. A north-south trending cement drainage trough is in place at the rear of the site and leads to a storm drain. The storm drain has always been in this location. A ramp

slopes down from an outside storage area toward the storm drain. There was a small quantity (less than 5 gallons) of hazardous material with no secondary containment stored in this area. The waste was stored in small metal and plastic cans on a pallet on a concrete pad. There were various empty plastic containers and drums also located in this area. The material on the pallet was awaiting pick up by Romic, a waste hauler.

The mix room is located in the southwest corner of the building. The mixing area had stainless steel vats and a polyethylene-coated cement floor. Methyl ethyl ketone is used to clean up some of the equipment used to mix the coating. Fume hoods were present over the "sinks" used to clean the equipment. The floor in the cleaning area was also polyethylene-coated cement. Sumps with no outlet were present for spill control. Barrels were stored in an orderly fashion. No secondary containment was observed in the form of retaining walls or dikes, but the floor is sloped in such a way that a spill would flow into one of the sumps. Barrels along the eastern wall of the cleaning room are used to store wipe rags used to polish disks. These rags are contaminated with isopropyl alcohol. All drums in these areas were clearly labeled with the contents. The facility also has aluminum and iron powder in storage.

The loading dock area is located in the rear central portion of the building. Approximately 20 drums containing cyclohexanone, MEK, and soap were stored in a corner of the loading dock area. The hazardous materials were in an area bounded by secondary containment. The truck ramp leading to the loading dock is sloped toward the loading dock. A storm drain is located at the base of the ramp in front of the loading dock. The downward slope of the ramp would direct any spilled material toward the storm drain. A large (approximately 500-gallon) stainless steel tank containing Freon 113 is located at the southwest corner of the loading dock. Secondary containment in the form of a plastic wall surrounded by a concrete wall is in place for this tank.

The eastern half of the site consists of offices and a warehouse area. It is also used for quality assurance/control and very small quantities of hazardous materials are used here. There are no control points or fence along the site boundary to control access. However, the site is patrolled 24 hours per day by Xidex security. Also, all chemical storage areas are either fenced or located inside the facility building.

The surrounding area, is an industrial park. Calabazas Creek forms the rear (western) boundary of the facility, and Patrick Henry Drive forms the front (eastern) boundary of the facility. To the south is 5200 Patrick Henry Drive, a former Xidex facility that also has groundwater contamination problems. To the north is an open field (across Mountain View-Alviso Road). A holding basin for the city of Santa Clara Sewer Department is 0.25 miles east of the site.

CONTACT REPORT

AGENCY/AFFILIATION: California Department of Health Services		
DEPARTMENT:		
ADDRESS/CITY: Emeryville		
COUNTY/STATE/ZIP: Alameda, California		
CONTACT(S)	**TITLE**	**PHONE**
1. Doris Cruz	File Clerk	415-540-3738
2.		
E & E PERSON MAKING CONTACT: Brad Webb		**DATE:** 8/29/90
SUBJECT: Files on site		
SITE NAME: Dysan Corporation		**EPA ID#:** CAD063541445

Ms. Cruz said that a very small file exists on the site. Currently, there is no project officer assigned to the site. An appointment to review the file was made for Friday, August 31 at 3:00 p.m.

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Xidex Corporation		
DEPARTMENT: Environmental Affairs		
ADDRESS/CITY: 5302 Betsy Ross Drive		
COUNTY/STATE/ZIP: Santa Clara, California		
CONTACT(S)	**TITLE**	**PHONE**
1. Chris van der Woerd	Manager	408-970-6575
2.		
E & E PERSON MAKING CONTACT: Brad Webb		**DATE:** 8/31/90
SUBJECT: Air quality violations, chemicals used on site, site status		
SITE NAME: Dysan Corporation-5440 Patrick Henry		**EPA ID#:** CAD063541445

Mr. van der Woerd said that the chemicals used at the 5440 Patrick Henry site (in order of decreasing quantity) are are follows: methyl ethyl ketone (MEK), cyclohexanone, diglyme (diethylene glycol methyl ether), and isopropyl alcohol (IPA). The first three chemicals are used in the coating operation, whereas isopropyl alcohol is used only in the polishing operation.

Mr. van der Woerd briefly outlined the manufacturing process used at the 5440 Patrick henry facility. Soap is used to create a substrate, an operation having no air quality implications. The coating that will be applied is mixed using MEK, cyclohexanone, and diglyme. This mixture is then sprayed on with coaters. Dysan was cited by the Bay Area Air Quality Management District for adding coaters without permits. The coating process has a low "transfer efficiency," meaning that of the mixture sprayed on, only a very small amount actually adheres to the target. The portion of coating that does not adhere to the target is collected as waste or recycled. The high volume of material sprayed on by the coaters is what resulted in the air quality violations. The scrubber then uses water to wash materials out of the airstream. Out of the chemicals used in the coating process (MEK, diglyme, and cyclohexanone). MEK is the most volatile and was what made up the bulk of the air emissions that Dysan was cited for. After baking the disks, IPA is used in the polishing process to flatten and smooth the surface of the disks.

Dysan discharges water from the scrubber to the City of Santa Clara sewer system under permit. MEK is the only compound monitored for in the water discharged to the sewer. Thus far, water discharged to the sewer has not exceeded permitted levels of 5.0 ppm.

bw/dysan/clcr

The extraction wells and air stripper resumed operations on July 20, 1990.

Approximately 500,000 gallons of water have cycled through the system since then with the treated water being used as "makeup water" in the plant's operations. Monitoring well sampling and operation of the treatment system will continue until operations at the site cease, at which time Xidex will discuss site closure with the Regional Water Quality Control Board. The results of the most recent sampling round are as follows:

Well	MEK (µg/L)	Acetone (µg/L)
B-19	Non-detect (ND)	ND
B-23	ND	ND
B-24	ND	ND
B-35	ND	ND
B-26	5,550	850
B-9	6,600	1,300
(split)	9,800	1,500

Detection limits used:

MEK = 20 µg/L
acetone = 20 µg/L
IPA = 100 µg/L

Xidex is currently in the process of reducing the workforce at the 5440 Patrick Henry Drive in anticipation of closing the facility in the near future. One hundred and fifty four employees will be laid off on September 28 and an additional 73 employees on October 9, which will leave approximately 100 employees at the site.

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Bay Area Air Quality Management District (BAAQMD)		
DEPARTMENT:		
ADDRESS/CITY: 939 Ellis Street		
COUNTY/STATE/ZIP: Santa Clara, California 94109		
CONTACT(S)	**TITLE**	**PHONE**
1. Alex Sachsin	Inspector/Permit Writer	(415)-771-6000
2.		
E & E PERSON MAKING CONTACT: Brad Webb		**DATE:** 9/6/90
SUBJECT: Air quality permit violations at Dysan		
SITE NAME: Dysan Corporation-5440 Patrick Henry		**EPA ID#:** CAD063541445

Mr. Sachsin said that this Dysan facility has had abatement problems in the past. These problems have been corrected in the last one and a half to two years. As part of the corrective action, the facility must source test emission units on site once every six months. Part of the problem stemmed from the use of two vapor degreaser units which were used to clean the disks prior to coating. There had been a problem with breakthrough on the carbon canisters of these two units. The facility has since installed an automatic shutdown and alarm system on these units to prevent breakthrough.

With respect to trying to calculate the total amount of VOC emissions over permitted levels, Mr. Sachsin said a mass balance approach would be the best. He said such an approach would be difficult since it would require a large number of records from the facility regarding the amounts and types of chemicals used. Basically, his feeling is that a problem no longer exists at this site. This may be related to decreased production at the facility, which has allowed the site to address environmental concerns.

The BAAQMD regulates air stripping systems that are newly installed. The air stripping system at Dysan has been in place for several years and must only comply with certain generic BAAQMD rules. The air stripper would be covered in regular inspections as the inspector is given a list of sources to review while at the facility.

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Xidex Corporation		
DEPARTMENT: Environmental Affairs		
ADDRESS/CITY: 5302 Betsy Ross Drive		
COUNTY/STATE/ZIP: Santa Clara, CA		
CONTACT(S)	**TITLE**	**PHONE**
1. Chris van der Woerd	Manager	408-970-6453
2.		
E & E PERSON MAKING CONTACT: Brad Webb		**DATE:** 9/24/90
SUBJECT: Rigid disc manufacturing process		
SITE NAME: Dysan Corporation-5440 Patrick Henry		**EPA ID#:** CAD063541445

Mr. van der Woerd stated that only rigid discs have been manufactured at the 5440 Patrick Henry Drive facility since it opened in 1979. Both Dysan and Xidex have used the same manufacturing process to make rigid disks. Xidex bought Dysan Corporation in 1985. Dysan and Xidex have made floppy discs at other sites in the Santa Clara area.

Xidex currently manufactures rigid discs of various sizes. Pure aluminum discs of various sizes (7 inch and 14 inch diameters) are provided by a supplier to Xidex. These discs look much like a compact disc or an LP record. These discs have a hole in the center of them for ease of handling during the manufacturing process. The discs are first polished to a mirror finish with industrial soap and styrofoam pads. The soap is then rinsed off the discs, and the soapy water is discharged to the sewer under permit.

A chain is then run through the center of a number of discs. These discs are then passed through a vapor degreaser. The vapor degreaser sprays a mist of solvents on the disc to ensure that each disc is clean. At present, one vapor degreaser is in operation at the site; this vapor degreaser is equipped with emissions abatement equipment. The clean discs are placed on racks and then subjected to a coating process.

The coating applied to the discs is a mixture of aluminum and iron oxides, cyclohexanone, methyl ethyl ketone (MEK), and diethylene glycol methyl ether (diglyme). The "active ingredient" in this mixture is the iron oxide. Three batches per week of this coating are mixed and each batch is 50 to 60 gallons in size. This mixing occurs in the mixing room which contains 10 to 15 mixing kettles. The coating mix is 17 to 27 per cent solids and has the consistency of pudding. During mixing, Xidex places a mylar-like material over the top of the kettles to minimize

venting of Volatile Organic Compounds (VOCs); this covering is considered to be the best available control technology.

The coating mix is then loaded into 5-gallon feed buckets on automated coating machines. Individual discs are picked-up off the rack by a robot arm. The discs are rotated at 10,000 r.p.m. while the coating is applied. Each disc is sprayed with the coating mixture for about three seconds, and the high-speed rotation ensures that the thinnest coating possible is applied. The transfer efficiency of the coating process is very low with about 10% of the total volume of coating sprayed actually adhering to the disks. The excess coating mixture is collected in a recovery container and is either recycled or treated as hazardous waste and disposed of under manifest. The coating machines are fully-abated, and 8 to 12 are currently in use although the facility is permitted for a greater number.

A magnet is used to orient the iron oxide particles on the disc, and the discs are then baked in a Class I industrial oven. The final step in the manufacturing process involves polishing the discs with isopropyl alcohol (IPA) and wipe rags. Extensive quality control is then performed on the discs. Depending on the problem, defective discs are either returned to the aluminum supplier for recycling or are reconditioned by Xidex. The finished discs are then placed in "carts" and "packs;" these serve to facilitate installation of the disks in computers. The discs are then shipped to individual customers. At present, Xidex is producing approximately 7,500 discs per week at the 5440 Patrick Henry Drive facility although this quantity will decrease as Xidex implements its plans to close the facility.

Acetone and MEK are used to clean the mixing equipment. Methanol is used in the quality control process as well as in a solvent ink used to stamp a tracking number on the finished discs. The styrofoam used in the initial polishing step is made on site by combining diisocyanate (the "A component") with a "B component"; Mr. van der Woerd is not certain what compound is used as the B component.

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: City of Santa Clara		
DEPARTMENT: Water		
ADDRESS/CITY: 1500 Warburton Avenue, Santa Clara		
COUNTY/STATE/ZIP: Santa Clara, CA 95050		
CONTACT(S)	**TITLE**	**PHONE**
1. Mike Dulude	Senior Engineering Aide	408-984-3183
2.		
E & E PERSON MAKING CONTACT: Brad Webb		**DATE:** 10/4/90
SUBJECT: Contaminated Wells/Well Locations		
SITE NAME: Dysan Corporation		**EPA ID#:** CAD063341445

Mr. Dulude said that Don Massee is the new water quality specialist in the department; he should be contacted in the future for this information. Well SC-20-02 is located at the corner of Semiconductor Drive and Tahoe; this well is in the parking lot of National Semiconductor. This company uses almost all of the water produced by this well although a small amount may be used as drinking water since the Santa Clara has a looped, or blended system. This well is contaminated with low levels of one of the following chemicals TCA (0.0026 mg/L), or cis-1,2 dichloroethylene (0.0005 mg/L), or Freon 113 (0.0028 mg/L). The contaminant in the well is probably 1,2-DCE since that is what has been found there in the past. Well SC-19 is located at the intersection of Nelson and Burke; this is the city's northernmost well. SC-19 is not contaminated. SC-15 might be contaminated also, but Mr. Dulude was not certain that this was the case. The contaminated wells are along the Sunnyvale-Santa Clara border. The city of Santa Clara has 28 wells in a blended system.

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: City of Santa Clara		
DEPARTMENT: Water		
ADDRESS/CITY: 1500 Warburton Avenue, Santa Clara		
COUNTY/STATE/ZIP: Santa Clara, CA 95050		
CONTACT(S)	**TITLE**	**PHONE**
1. Don Massee	Civil Engineer I	408-984-3183
2.		
E & E PERSON MAKING CONTACT: Brad Webb		**DATE:** 10/4/90
SUBJECT: Well Locations/Contamination in City Wells		
SITE NAME: Dysan Corporation-5440 Patrick Henry		**EPA ID#:** CAD063341445

Mr. Massee has replaced Mike Dulude as the water quality specialist in the department. At present, two city wells, SC-20-02 and SC-15 are considered contaminated. Since January 1990, Well SC-20-02 has shown non-detects for cis-1,2-dichloroethylene, a compound which had been detected at low levels in the well in the past. Non-detects were also obtained for other compounds analyzed for during the same period of time. The well is located in a parking lot at National Semiconductor, and almost all of the water produced by this well is used by this company. SC-20-02 produces approximately 900 gallons per minute (gpm). SC-15 is located in Santa Clara at the north end of Hubbard on the north side of Pruneridge Avenue.

Extensive water quality testing is done on the city's wells as follows: weekly testing for bacteria and microorganisms; monthly testing for Volatile Organic Compounds and physical characteristics (turbidity, clarity, etc.); quarterly testing for trihalomethanes; and yearly testing for complete physical characteristics (hardness, alkalinity, physical constituents, etc.).

A FAXed request for information on wells SC-20-02 and SC-15 should be submitted to Dick Hathorn, Director, Water and Sewer Utilities, City of Santa Clara, 1500 Warburton Avenue, Santa Clara, CA, 95050, FAX: 408-241-8291.

bw/dysan/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Santa Clara Valley Water District (SCVWD)		
DEPARTMENT:		
ADDRESS/CITY: 5750 Almaden Expressway, Santa Clara		
COUNTY/STATE/ZIP: Santa Clara, CA 95118		
CONTACT(S)	**TITLE**	**PHONE**
1. Tom Iwamura	Hydrogeologist	408-265-2600
2.		
E & E PERSON MAKING CONTACT: Brad Webb		**DATE:** 10/4/90
SUBJECT: Aquifer Characteristics/Structure, Conduit Wells		
SITE NAME: Dysan Corporation-5440 Patrick Henry		**EPA ID#:** CAD063541445

Mr. Iwamura said the Santa Clara Valley is composed of basin-type deposits. The more shallow deposits are not as tightly compacted as the deeper deposits, which results in non-compacted clay cap between the upper and lower aquifers in some areas of the valley. The upper aquifer may occur as a series of shallow aquifers contained in sandy lenses. The groundwater gradient is flat in the Santa Clara Valley. The leaky characteristics of the clay materials exist down to approximately 100 feet. As depth increases, so does the compaction of the clay aquitards. This compaction becomes very tight at a depth of 150 to 200 feet, resulting in a very good clay cap over the drinking water aquifer. The area in which the shallow and deep aquifers are separated by a continuous clay cap is north from San Francisco Bay, south to downtown San Jose, and west along Stevens Creek Boulevard to where this street crosses Interstate 280.

The integrity of this clay cap was responsible for the land subsidence that has occurred in the Santa Clara Valley. Essentially, overpumping of the lower aquifer occurred, and the clay cap prevented recharge of groundwater from the upper aquifer to the lower aquifer. Since insufficient recharge was occurring, there was not enough water present in the pore spaces of the lower aquifer to support the load of the upper aquifer and subsidence occurred. Several wells were damaged as a result of this subsidence.

Wells can act as a conduit for contaminants in a variety of ways. First, infiltration of contaminants down through the gravel pack can occur if the well is a gravel-packed well. Secondly, the well can be screened in both aquifers. For wells in which metal casing was installed in the upper zone, corrosion of this casing could have occurred. Since the upper aquifer is typically saline near the bay and the lower aquifer is

fresh water, an electrochemical potential would develop resulting in corrosion of the casing. Currently, Responsible Parties are required to conduct a search for conduit wells around their site; this includes sites at which fuel tank leaks have occurred. SCVWD will assist private parties in sealing conduit wells. Wells within a contaminant plume are not sealed.

bw/dysan/clcr

APPENDIX B

PHOTODOCUMENTATION

FIELD PHOTOGRAPHY LOG SHEET

DATE: 7/19/90

TIME: 1:07 PM

DIRECTION:

southwest

WEATHER: sunny, slight breeze,

PHOTOGRAPHED BY:

Brad Webb

DESCRIPTION:

Southern entrance of site showing access is not controlled.

DATE: 7/19/90

TIME 12:58 PM

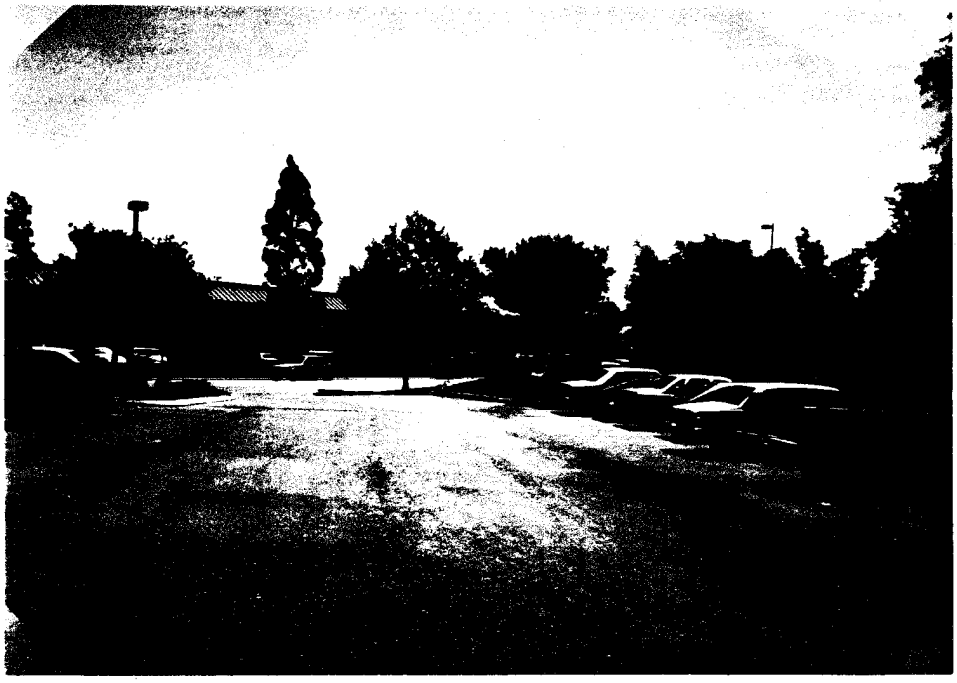
DIRECTION:

east

WEATHER: sunny, slightly breezy, warm

PHOTOGRAPHED BY:

Brad Webb



DESCRIPTION:

Northern entrance of site as seen from northwest corner of the site.

bw/dysan/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 7/19/90

TIME: 12:45 PM

DIRECTION:

northwest

WEATHER: sunny, slight breeze, warm

PHOTOGRAPHED BY:

Brad Webb

DESCRIPTION:

Extraction well R-2 adjacent to southern boundary of former underground tank farm. The darker asphalt represents areal extent of former tank farm located at rear of site. Calabazas Creek is on the other side of the levee.

DATE: 7/19/90

TIME 12:46 PM

DIRECTION:

north

WEATHER: sunny, slight breeze, warm

PHOTOGRAPHED BY:

Brad Webb

DESCRIPTION:

Dark asphalt is area of former tank farm. Extraction well R-2 is in the left corner of the picture. Calabazas Creek is on the other side of the levee.

bw/dysan/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 7/19/90

TIME: 12:12 PM

DIRECTION:

south

WEATHER: sunny, slight breeze, warm

PHOTOGRAPHED BY:

Brad Webb

DESCRIPTION:

Monitoring wells B35 and B33 are on the levee at the rear of the site. Calabazas Creek is on the right side of levee. The levee is used for recreation. There is no fence separating the levee from the site.

DATE: 7/19/90

TIME 12:36 PM

DIRECTION:

southeast

WEATHER: sunny, slight breeze, warm

PHOTOGRAPHED BY:

Brad Webb

DESCRIPTION:

Raw materials are received at the loading dock at the rear of the facility building. The pavement is sloped toward storm drain seen in the picture.

bw/dysan/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 7/19/90

TIME: 12:34 PM

DIRECTION:

northeast

WEATHER: sunny, slight breeze, warm

PHOTOGRAPHED BY:

Brad Webb

DESCRIPTION:

Area at rear of loading dock where incoming raw materials are stored. Secondary containment in the form of a low (3-4") wall is present around a majority of this area.

DATE: 7/19/90

TIME 12:20 PM

DIRECTION:

north

WEATHER: sunny, slight breeze, warm

PHOTOGRAPHED BY:

Brad Webb

DESCRIPTION:

Chemical storage area adjacent to mixing room. Floors are concrete and sealed with a polyethylene coating. Floor drain leads to a sump used for spill control.

bw/dysan/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 7/19/90

TIME: 12:31 PM

DIRECTION:

north

WEATHER: sunny, slight breeze, warm

PHOTOGRAPHED BY:

Brad Webb

DESCRIPTION:

Assorted stored wastes awaiting disposal or profiling. No secondary containment is evident.

DATE: 7/19/90

TIME 12:17 PM

DIRECTION:

southeast

WEATHER: sunny, slight breeze, warm

PHOTOGRAPHED BY:

Brad Webb

DESCRIPTION:

Storm drain northwest of the outdoor chemical storage area (above photo). Ramp slopes down toward sewer.

bw/dysan/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 7/19/90

TIME: 12:23 PM

DIRECTION:

east

WEATHER: sunny, slight breeze, warm

PHOTOGRAPHED BY:

Brad Webb

DESCRIPTION:

Stations used for cleaning equipment used to mix coating materials. Solvents are used in the cleaning process.

DATE: 7/19/90

TIME 12:25 PM

DIRECTION:

north

WEATHER: sunny, slight breeze, warm

PHOTOGRAPHED BY:

Brad Webb

DESCRIPTION:

Area used to clean equipment used in mixing process. Concrete, polyethylene-coated floors are in this area. Drain leads to sump used for spill control. Wipe rags are disposed of in barrels along right wall.

bw/dysan/fpls

APPENDIX C

HISTORICAL GROUNDWATER MONITORING DATA

TABLE C-1

GROUNDWATER MONITORING DATA: CONCENTRATIONS METHYL ETHYL KETONE (MEK)
5440 PATRICK HENRY DRIVE

WELLS TESTED (PPM)

SAMPLING DATE	B-9	B-10	B-11	B-12	B-13	B-14	B-25	B-26	B-27	B-33	B-35	B-41	B-45	R-2	R-3
AUG 82	13500	12500	18500	49000	17200	7000	<1	700	<1	<1	<1				
AUG 83			11000	800		64		7000		10000				770	
APR 84	<1		5000	2	9	14	<1	4000	<1	4000					
AUG 84	28	<1	6000	<1	9		<1	3100	<1	1700	32				
DEC 84			2900				ND	1900		590	480	ND			
FEB 85			1200									<1	1300		
JUL 85			3700				0.6	1500		200	3600				
OCT 85			2700					2400							100
JUN 86	<0.1		235	<0.1			<0.1	685		13.5					
JUL 86	3.9		250	3			<0.1	1100		12					
AUG 86	<0.1		445	0.1			1	136		11.3					
NOV 86			321				<0.1	1492		1.3	1712	44	1500		76
DEC 86			290				<0.1	480		<0.1	1500				
DEC 86			123				<0.1	660		<0.1	890				
JAN 87			200				ND	420		ND	930				
FEB 87			150				ND	960		ND	650	ND	1500	25	70
MAR 87			170				ND	460		ND	530				
APR 87			130				<1	340		<1	220			13.4	44
MAY 87			150				ND	1100			130	ND		22	59
JUN 87			110				ND	360		ND	130		860	<0.5	
JUL 87			46				ND	590		ND	52				24
AUG 87			4.4				ND	220		ND	ND				22.7
SEP 87			10				ND	280		ND	12			6.6	
OCT 87			87				<1.0	300		<1.0	30	<1.0	890		
NOV 87			68				<1.0	390		<1.0	18				
DEC 87			52				<0.5	463		<0.5	3.2				

Continued on following page...

Source: Quarterly Report for Sampling Activities for Xidex Corporation Facilities Located at 5200 and 5400 Patrick Henry Drive, Santa Clara, California, 2nd Quarter, 1990.

TABLE C-1 (Cont.)

GROUNDWATER MONITORING DATA: CONCENTRATIONS
METHYL ETHYL KETONE (MEK) 5440 PATRICK HENRY DRIVE

WELLS TESTED (ppm)

SAMPLING DATE	B-9	B-10	B-11	B-12	B-13	B-14	B-25	B-26	B-27	B-33	B-35	B-41	B-45	R-2	R-3
JAN 88			40				ND	190			ND				
FEB 88			56				<4	300		<4	<4				
MAR 88			35					330			ND				
APR 88			45				ND	370		ND	ND		1000		
MAY 88			26					190		ND	ND	ND			
JUN 88			21				ND	240		ND	ND				
JUL 88			15				ND	280		ND	ND				
AUG 88			7				ND	81		ND	ND				
SEP 88			20				ND	42		ND	ND				
OCT 88			4				ND	10		ND	ND				
NOV 88			1.5				ND	0.73		ND	0.005				
DEC 88															
JAN 89	91	<.020	45				<.020	1.1	<.02	<.020	<.020	<.020	3.2		
FEB 89	120		<.020				<.020	0.13		<.020	<.020		0.23		
MAR 89	0.149		2				<.020	2.4		<.020	<.020	ND	0.92	0.58	0.28
APR 89	82		4.9				<.020	1.1		<.020	<.020		2.7		
MAY 89	132		2.2				<.020	2.4		<.020	<.020				
JUN 89	70		5.2				<0.20	1.1		<.020	<.020		1.2		
JUL 89	64		<1					0.55		<.020	<.020	<.020	0.14		
AUG 89	80		0.675				<.020	3.5		<0.20	<.020				
								0.42	DUPLICATE						
SEP 89	21		0.22				<.020	0.52		<.020	<.020				
	44	DUPLICATE													
OCT 89	31		0.62				<0.20	0.1		<.020	<.020	<.020	0.14		
FEB 90	13		0.19					0.42	<.010		<.010				
MAY 90	8.4		<.400					0.68	<.020		<.020				

Source: Quarterly Report for Sampling Activities for Xidex Corporation Facilities Located at 5200 and 5440 Patrick Henry Drive, Santa Clara, California, 2nd Quarter, 1990.

TABLE C-2

GROUNDWATER MONITORING DATA: CONCENTRATIONS OF ACETONE
5440 PATRICK HENRY DRIVE

WELLS TESTED (ppm)

SAMPLING DATE	B-9	B-10	B-11	B-25	B-26	B-27	B-33	B-35	B-41	B-45	R-2	R-3
AUG 82												2.8
FEB 85												
JUN 86												
AUG 86												
NOV 86			43	<0.4	34		10.6	228	<0.4	125		
DEC 86			37	<0.4	88		<0.4	24				
APR 87			43	<1	34		<1	39			0.8	<0.5
MAY 87											0.7	<0.5
JUL 87											<0.5	<0.5
SEP 87											<0.1	<0.1
OCT 87			21	<1.0	19		<1.0	7.6	<1.0	68		
NOV 87			17	<1.0	14		<1.0	3.7				
DEC 87			10.5	<0.5	15.9		<0.5	<0.5				
FEB 88			17	<2	8.1		<2	<2				
JAN 89	2	<.020	7.1	<.020	0.34		<.020	<.020	<.020	0.82		
FEB 89	27		<.020	<.020	<.100		<.020	<.020		<.020		
MAR 89	0.034		9.3	<.020	<.100		<.020	<.020		0.15		
APR 89	26		13	<.020	<.220		0.071		<.020	0.28		
MAY 89	32		9.5	<.020	<.660		<.020	<.020				
JUN 89	9.8		4.7	<.020	<2		<.020	<.020		0.101		
JUL 89	13		2.8	<.020	<.100		<.020	<.020	<.020	0.034		
AUG 89	16		2.3	<.020	<.400		<.020	<.020				
					0.63		DUPLICATE					
SEP 89	3.3		0.5	<.020	0.64		<.020	<.020				
	8.9	DUPLICATE										
OCT 89	7		0.69	<.020	0.027		<.020	<.020	<.020	<.021		
FEB 90	3.6		3.2		0.14	<.010		<.010				
MAY 90	<2.0		4		0.1	<.020		<.020				

Source: Quarterly Report for Sampling Activities for Xidex Corporation Facilities Located at 5200 and 5440 Patrick Henry Drive, Santa Clara, California, 2nd Quarter, 1990.

bw/dysan/tC2,C3

TABLE C-3

GROUNDWATER MONITORING DATA: CONCENTRATIONS OF ISOPROPYL ALCOHOL
5440 PATRICK HENRY DRIVE

WELLS TESTED (ppm)

SAMPLING Date	B-9	B-10	B-11	B-25	B-26	B-27	B-33	B-35	B-41	B-45	R-2	R-3
AUG 82	120	100	160									
FEB 85			40						<1			
JUN 86	<0.4		5.7	<0.4	206		3.5					
AUG 86	<0.4		21.6	<0.4	362		3.7					
NOV 86			13	<0.4	34		<0.4	26	<0.4	68		2.8
DEC 86			25	<0.4	41		<0.4	150				
APR 87			12	<1	34		<1	6.7			<0.5	<0.5
MAY 87											<0.5	<0.5
JUL 87											<0.5	<0.5
SEP 87											<0.1	<0.1
OCT 87			5	<1.0	19		<1.0	<1.0	<1.0	24		
NOV 87			4.7	<1.0	14		<1.0	<1.0				
DEC 87			3	<0.5	15.9		<0.5	<0.5				
FEB 88			2.3	<2	8.1		<2	<2				
JAN 89	35	<.100	15	<.100	0.34		<.100	<.100	<.100	0.53		
FEB 89	13		2.1	<.100	<.100		<.100	<.100		<.100		
MAR 89	<.100		<.100	<.100	<.100		<.100	<.100		<.100		
APR 89	11		<2.0	<.100	<.100		<.100		<.100	<.100		
MAY 89	<1.00		<.100	<.100	<.100		<.100	<.100				
JUN 89	<25		<1	<.100	<2		<.100	<.100		<.500		
JUL 89	<2		<5	<.100	<1.00		<.100	<.100		<.100		
AUG 89	<.100		1.3	<.100	<.100		<.100	<.100				
					<.100		DUPLICATE					
SEP 89												
OCT 89	<2		<.25	<.10	<.10		<.10	<.10	<.10	<.10		
FEB 90												
MAY 90	<1.00		<1.00	<1.00	<1.00	<1.00						

Source: Quarterly Report for Sampling Activities for Xidex Corporation Facilities Located at 5200 and 5440 Patrick Henry Drive, Santa Clara, California, 2nd Quarter, 1990.

bw/dysan/tC2,C3

EOA, Inc.

Eisenberg, Olivieri, & Associates
Environmental and Public Health Engineering
FAX Number (510) 832-2856

FACSIMILE TRANSMITTAL SHEET

Date: 7-7-94

To: Habte Kifle
RWQCB

Fax#: 510/286-1380

From: Jon Konnan

Project: AN04

Pages: 7 (including this transmittal)

Comments:

As we discussed, attached are chemical analysis results for water sample (WT-1) from ~ 600 gallons water stored in a water truck (stainless steel tank) at the site. We would like to discharge the water to the storm drain at the site, since chemicals were not detected. Please call me at —

NB: Since chemicals were not detected in the water verbal approval is granted to discharge the water to the storm drain. -HTK 7/8/94

File No 2189.8118

1410 Jackson Street • Oakland, CA 94612 • (510) 832-2852

07-07-1994 04:20PM FROM EOA,Inc. TO 2861380 P.01

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710. Phone (510) 486-0900

[redacted]

Date: 06-JUL-94
Lab Job Number: 116138
Project ID: AN04
Location: Patrick Henry

Reviewed by: [signature]

Reviewed by: [signature]

This package may be reproduced only in its entirety.

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116138
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY

DATE SAMPLED: 06/28/94
DATE RECEIVED: 06/28/94
DATE EXTRACTED: 06/30/94
DATE ANALYZED: 07/01/94
DATE REPORTED: 07/07/94

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT (ug/L)
116138-1	WT-1	ND	ND	50
116138-METHOD BLANK		200	ND	50

Hydrocarbons detected in lab method blank, but not in WT-1

ND = Not detected at or above reporting limit. Reporting limit applies to all analytes.

QA/QC SUMMARY:

LCS RECOVERY, %	98

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116138-1
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY
SAMPLE ID: WT-1

DATE SAMPLED: 06/28/94
DATE RECEIVED: 06/28/94
DATE ANALYZED: 07/01/94
DATE REPORTED: 07/07/94

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	10
Acetone	ND	20
Carbon disulfide	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	10
Carbon tetrachloride	ND	5
Vinyl acetate	ND	5
Bromodichloromethane	ND	50
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	5
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	10
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5
Cyclohexanone	ND	5
Isopropyl alcohol	ND	100
	ND	100

ND = Not detected at or above reporting limit

extra compounds associated with site

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	102 %
Toluene-d8	90 %
Bromofluorobenzene	106 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116138-METHOD BLANK
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY

DATE ANALYZED: 07/01/94
DATE REPORTED: 07/07/94

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	10
Acetone	ND	20
Carbon disulfide	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	10
Carbon tetrachloride	ND	5
Vinyl acetate	ND	5
Bromodichloromethane	ND	50
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	5
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	10
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5
Cyclohexanone	ND	5
Isopropyl alcohol	ND	100
	ND	100

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	100 %
Toluene-d8	88 %
Bromofluorobenzene	104 %

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number:	116138		
Client:	EOA, Inc.	Spike file:	bfu15
Analysis date:	06/30/94	Spike dup file:	bfu16
Sample type:	Water		
Sample spiked:	116130-002		

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	50.58	94 %	OK	61 - 14
Trichloroethene	38.88	72 %	OK	71 - 12
Benzene	46.83	87 %	OK	76 - 12
Toluene	46.95	88 %	OK	76 - 12
Chlorobenzene	48.21	90 %	OK	75 - 13
SURROGATES				
1,2-Dichloroethane-d4	50.29	101 %	OK	76 - 114
Toluene-d8	47.75	96 %	OK	88 - 110
Bromofluorobenzene	49.86	100 %	OK	86 - 115

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	51.40	95 %	OK	61 - 145
Trichloroethene	39.31	73 %	OK	71 - 120
Benzene	46.99	87 %	OK	76 - 127
Toluene	44.62	83 %	OK	76 - 125
Chlorobenzene	47.17	88 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	48.45	97 %	OK	76 - 114
Toluene-d8	45.35	91 %	OK	88 - 110
Bromofluorobenzene	49.53	99 %	OK	86 - 115
MATRIX RESULTS				
1,1-Dichloroethene	3.7			
Trichloroethene	2.91			
Benzene	3.47			
Toluene	3.16			
Chlorobenzene	3.31			

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	50.58	51.40	2 %	OK	< 14
Trichloroethene	38.88	39.31	1 %	OK	< 14
Benzene	46.83	46.99	0 %	OK	< 11
Toluene	46.95	44.62	5 %	OK	< 13
Chlorobenzene	48.21	47.17	2 %	OK	< 13

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY FORM

Page 1 of 1

Sampler: JK

Report to: Jon Konnan

Project No: AN04

Company: EOA

Project Name: Patrick Henry

Telephone: 510/832 2852

Turnaround Time: 1 week

Fax:

Laboratory Number	Sample ID.	Sampling Date	Sampling Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservative: HCl	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: ICE	Preservative: Air-ice	Field Notes	Analyses: EPA 8240 + Cyclohexanone isopropanol	Analyses: Diesel
Laboratory Use	WT-1	6-28-94	2PM		X		5	4				1		X	X

Notes:

RELINQUISHED BY:	RECEIVED BY:
Jonathan Konnan EOA 6-28-94 2:20PM DATE/TIME	Troy E. Wright 6-28-94 2:40PM DATE/TIME
DATE/TIME	DATE/TIME
DATE/TIME	DATE/TIME

CLOSURE OF WELLS AND ASSOCIATED EQUIPMENT AT 5200 AND 5440 PATRICK HENRY DRIVE SANTA CLARA, CALIFORNIA

Prepared For:

ANACOMP, INC.

Prepared By:

EOA, Inc.
(Eisenberg, Olivieri and Associates)
1410 Jackson Street
Oakland, CA 94612

August 29, 1994

EOA, Inc.

Eisenberg, Olivieri, & Associates
Environmental and Public Health Engineering

August 29, 1994

Mr. Chris van der Woerd
Anacomp, Incorporated
22351 City Center Drive, Suite 203
Hayward, California 94541

Subject: Closure of Groundwater Wells and Associated Equipment
5200 and 5440 Patrick Henry Drive
Santa Clara, California

Dear Chris:

The following report prepared by EOA, Inc. (EOA) documents the closure of groundwater wells and associated equipment at the former Anacomp, Inc. (Anacomp) site at 5200 and 5440 Patrick Henry Drive in Santa Clara, California. Anacomp and its predecessors, Xidex Corporation and Dysan Corporation, conducted a groundwater investigation and cleanup program at the site, beginning in 1982. On January 19, 1994, the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) rescinded the Waste Discharge Requirements (WDR) for the site. As part of the order rescinding the WDR, the RWQCB required that Anacomp properly close the existing groundwater wells and remediation equipment at the site. Anacomp retained EOA to perform this work. The closure activities, which were carried out June through August 1994, are described below.

1.0 WELL CLOSURES

A total of thirty-nine monitoring wells were closed. These wells were designated A, B, R-1, R-2, R-3, B-9 through B-18, B-20 through B-41, B-44 and B-45. Figures 1 and 2 show their locations.

A well destruction permit was obtained for each well from the Santa Clara Valley Water District (SCVWD) prior to performing the work (Appendix A) and all wells were closed in accordance with SCVWD standards.

The same general procedure was used to close wells B-9 through B-18, B-20 through B-41, B-44 and B-45. Each of these 2-inch diameter casing wells was drilled-out using 8-inch diameter hollow-stem augers. Drilling was performed by Bayland Drilling, Inc. of Menlo Park, California under the supervision of Jonathan I. Konnan, an EOA Associate Engineer. The seal of each well was drilled-out and as much of the well casing as possible

1410 Jackson Street • Oakland, CA 94612 • (510) 832-2852 • Fax 832-2856

was removed intact. A wooden plug was then placed in the lead auger to prevent water from entering the augers and the well was drilled-out to the original bottom-of-hole depth indicated on the well boring log. The wooden plug was then knocked out by placing a rod down the augers and the bore hole was grouted through the augers with neat cement. At 5200 Patrick Henry Drive, well Christy boxes were left in-place.

At 5440 Patrick Henry Drive, well Christy boxes were removed and the parking lot was repaired with base rock and asphalt to the property owner's specifications.

Wells R-1, R-2 and R-3 were groundwater extraction wells. Submersible pumps and associated piping and electrical lines were removed from these wells prior to their destruction. Well R-3 was drilled-out using the above procedure except that 15-inch diameter hollow-stem auger was used, since the casing of this well was 8 inches in diameter. Wells R-1 and R-2 were constructed with 12-inch diameter steel casings. Since these casings were too large to drill-out, an attempt was made to pull the casing of well R-2 out of the ground using a Denver-Gardner water well drill rig. This attempt was unsuccessful. Permission was obtained from the SCVWD to close this well and well R-1, which was constructed similarly to R-2, by pressure pumping. Ten sack sand slurry cement grout was pumped into each well using a tremie pipe and the wells were filled to the top of their casings. The vault for well R-2 was filled with cement grout and finished at the surface with base rock and asphalt in accordance with the property owner's specifications. The vault for well R-1 was filled to the surface with neat cement.

2-inch wells A and B were constructed with 12-inch diameter outer steel pipes. Since these pipes were too large to drill-out, an attempt was made to pull the outer steel pipe of well A out of the ground using the Denver-Gardner water well drill rig. The casing and seal inside this pipe were drilled-out using 8-inch hollow stem augers prior to making this attempt, which was unsuccessful. Permission was obtained from the SCVWD to drill-out well A inside the outer steel pipe (leaving the pipe in place); this well was drilled-out using the above procedures. Permission was also obtained from the SCVWD to pressure-grout well B, also leaving its outer steel pipe in place. Neat cement was pumped into the casing of this well from the bottom until the casing was full and the pressure had reached about 25 - 50 psi.

One of four inspectors (Dave Zozaya, Brett Calhoun, Bill Cameron or Mike Heller) from the SCVWD observed the grouting of each destroyed well. Well Destruction Completion Notices, which document that each well was closed in accordance with SCVWD standards, are presented in Appendix B.

2.0 REMOVAL OF ABOVE-GROUND EQUIPMENT

The approximate one-quarter mile of above-ground 2-inch diameter PVC piping which ran along the western property lines of 5200 and 5440 Patrick Henry Drive was cut into approximate ten-foot lengths and removed. A small amount of residual water remaining in the piping (about five gallons) was captured in buckets and stored in a water truck along with other wastewaters generated during the project (see below).

Above-ground electrical control boxes and flow meters located near each extraction well

were removed. The electrical boxes were tested to confirm no current was present prior to their removal. In addition, using an electrical plot plan provided by Anacomp, it was confirmed that the electrical supply for the groundwater extraction equipment at 5440 Patrick Henry Drive had been disconnected at the circuit box inside the facility. The facility manager for 5200 Patrick Henry Drive could not locate the circuit box indicated on the electrical plot plan for the groundwater extraction equipment at that property.

3.0 EQUIPMENT LEFT IN-PLACE

At the request of the property owner, three wells at the 5200 Patrick Henry Drive property were not destroyed. These wells, designated B-19, B-42 and B-43 (Figure 1), may be monitored in association with future property transactions.

Sections of underground 2-inch PVC piping and electrical lines running beneath the parking lot at both properties were capped below-grade and left in place. Their locations are shown on Figures 1 and 2.

4.0 WASTE STORAGE, TESTING AND DISPOSAL

Well remnants generated during drilling were stored on-site in roll top hazardous waste bins. The remnants were segregated into three bins: one bin for remnants from wells in the parking lot at 5440 Patrick Henry Drive (bin A), one bin for remnants from wells west of the parking lot at 5440 Patrick Henry Drive (bin B) and one bin for remnants from wells located at 5200 Patrick Henry Drive and the SCVWD levees (bin C). Groundwater displaced during grouting, rinsate waters generated during steam-cleaning of augers, and the residual water captured from the above-ground piping were contained and stored on-site in a water truck with a 1,200 gallon stainless steel tank.

EOA collected four samples from each of the three waste bins (A-1,2,3,4; B-1,2,3,4 and C-1,2,3,4) and a water sample from the water truck (WT-1). All samples were collected in appropriate sample containers, stored in an ice chest and shipped to Curtis and Tompkins, Ltd. of Berkeley, California. Curtis and Tompkins composited the four samples from each of the waste bins and analyzed the three composite samples and the water truck sample for chemicals associated with the site. The samples were analyzed for volatile organics (using EPA Method 8240, including isopropanol and cyclohexanone) and Extractable Petroleum Hydrocarbons (diesel). Table 1 summarizes the chemical analysis results. Appendix C contains the Curtis and Tompkins laboratory reports.

The contents of bins A and C were transported by a licensed hazardous waste hauler to a Class I landfill (Chemical Waste Management's Kettleman Hills facility in California) and disposed of in accordance with applicable regulations. Appendix D contains a copy of the manifest for this waste. The contents of bin B were accepted by a Class III landfill (Redwood Landfill in Nevato, California) and disposed of in accordance with applicable regulations.

Since chemicals were not detected in sample WT-1, EOA obtained permission from the RWQCB to discharge the water stored in the water truck (approximately 600 gallons) to

the storm drain at 5200 Patrick Henry Drive.

The above-ground PVC piping was disposed of in accordance with applicable regulations at a Class III landfill, based on data provided by Anacomp and described below. This piping was used to convey extracted groundwater from the extraction wells to a former treatment system and then from the treatment system to the sanitary sewer. Extraction from these wells and groundwater treatment was permanently discontinued early in 1991. Anacomp provided EOA with the fourth quarter 1990 monitoring report for the site. During that quarter, about 500,000 gallons of groundwater were extracted and treated. Chemicals were not detected in samples collected from the extraction wells during the quarterly sampling event in October 1990, except that acetone was detected at a low level (0.021 mg/L) in well R-2. This detection was believed to be due to laboratory contamination. In addition, chemicals were not detected in influent samples to the treatment system collected during October and November 1990. This influent consisted of the mixed flows pumped from the three extraction wells and conveyed by the above-ground piping. Diesel, a chemical associated with the site, was not tested for in the above analyses. According to Anacomp, diesel was detected only at low levels (2 - 3 mg/L) in the groundwater at the site during the course of the investigation and cleanup. Since the piping was drained and diesel is a relatively non-hazardous and degradable compound, it was deemed that the piping could be disposed of as a non-hazardous substance even if did convey water containing traces of diesel at the above low concentration.

If you have any questions, please do not hesitate to call.

Very truly yours,
EOA, Inc.

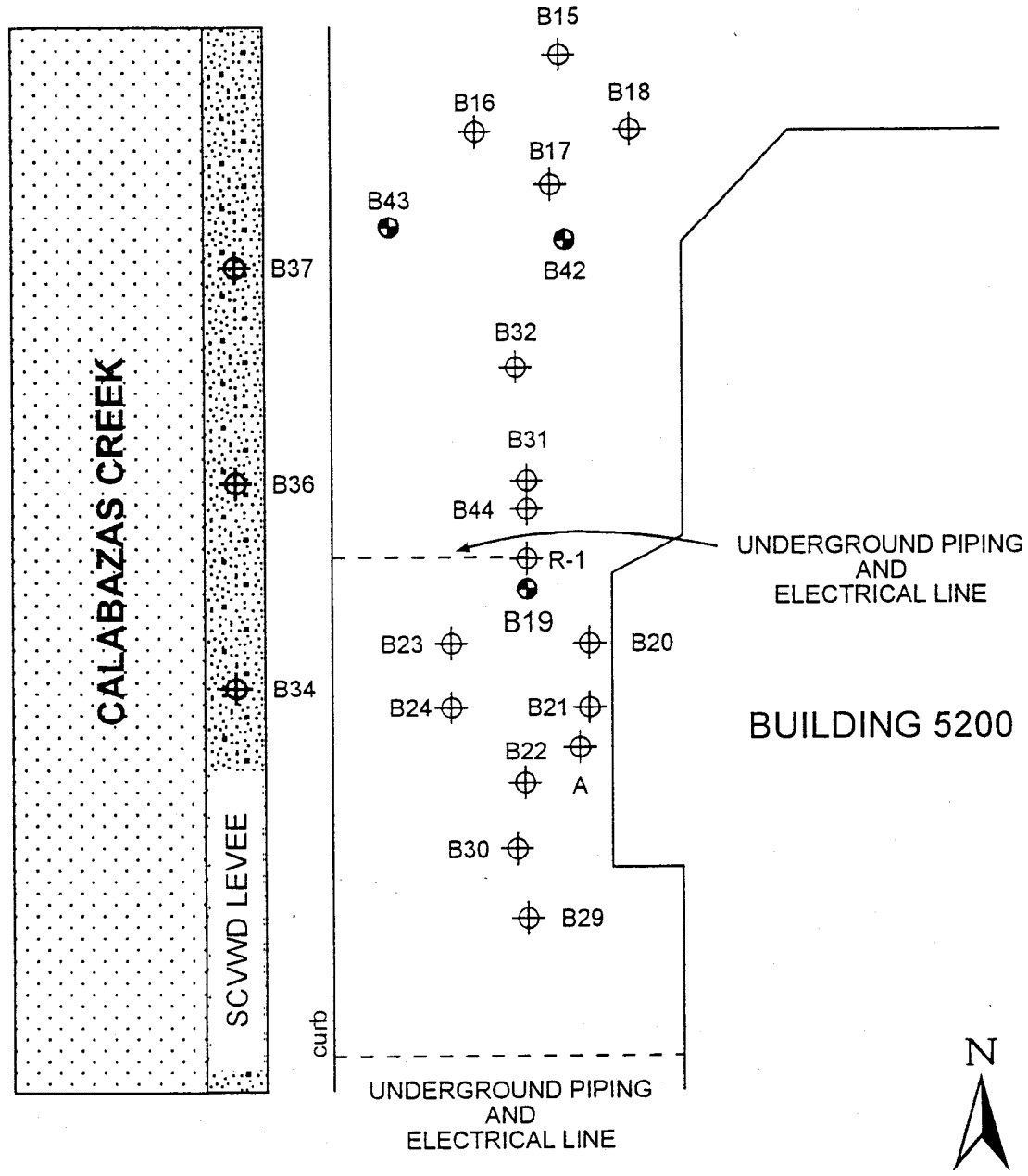
Jonathan I. Konnan, M.S.
Project Engineer

Don M. Eisenberg, Ph.D., P.E.
Principal Engineer

TABLE 1
CHEMICAL ANALYSIS RESULTS SUMMARY

SAMPLE	DIESEL	ACETONE	2-BUTANONE
WT-1	< 0.05	<0.02	<0.01
A-1,2,3,4	30	0.03	0.18
B-1,2,3,4	2	<0.02	<0.01
C-1,2,3,4	4	0.04	0.01

All results in milligrams/kilogram (parts-per-million).
Other compounds on the EPA Method 8240 list, including isopropanol and cyclohexanone, were not detected in the above samples. See the laboratory reports (Appendix C) for detection limits.



LEGEND

Monitoring Well

Destroyed Well

0′ 40′

Approx. Scale

All Locations Approximated 1" = 40′

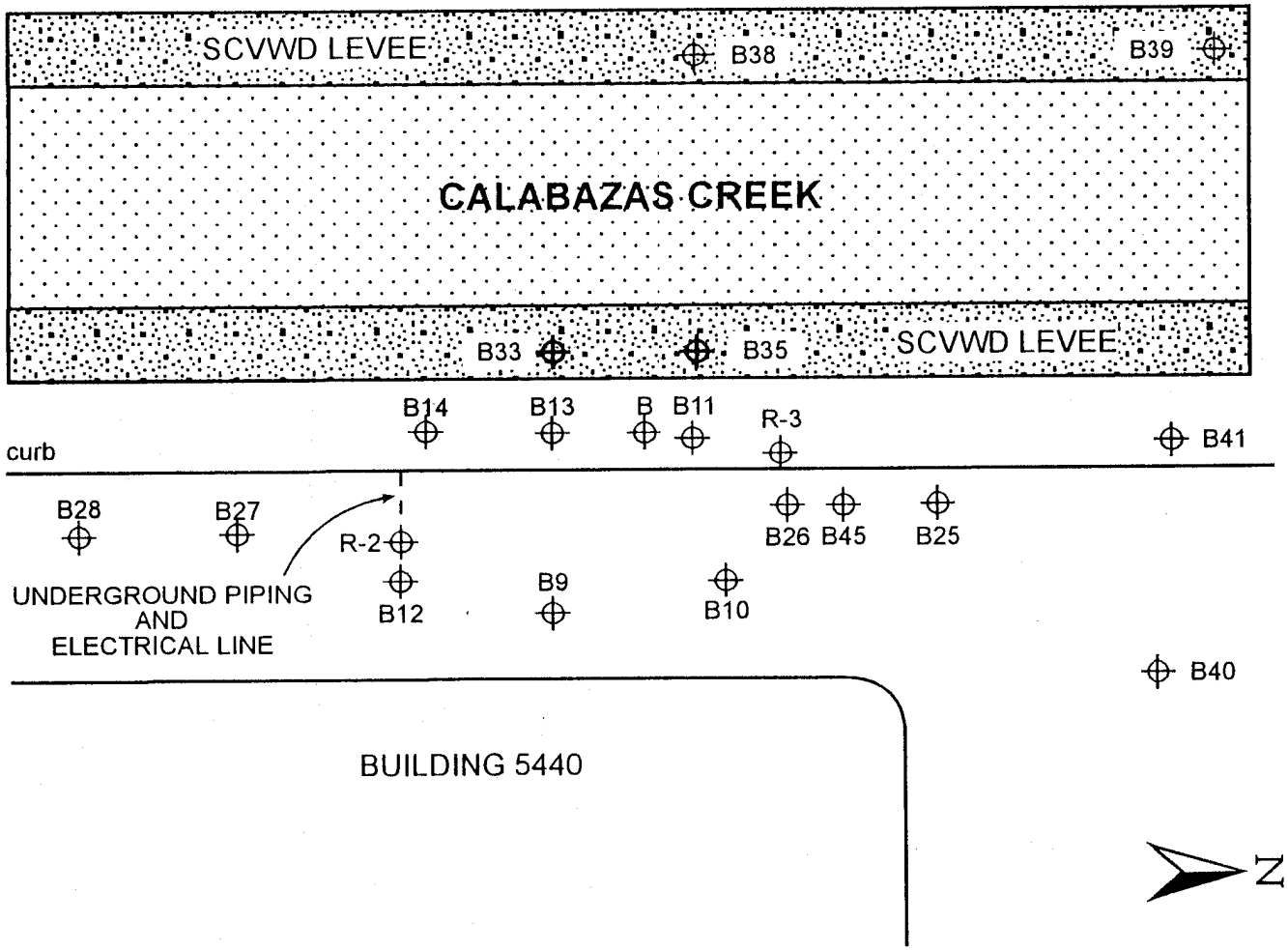
WELL LOCATIONS
5200 PATRICK HENRY DRIVE
SANTA CLARA, CA

FIGURE

1

EOA, Inc.

F:\AN04\ANA-5200.CDR



LEGEND

⊕ Destroyed Well

All Locations Approximated

0′ 50′

Approx. Scale

1" = 50′

WELL LOCATIONS
5440 PATRICK HENRY DRIVE
SANTA CLARA, CA

FIGURE

2

EOA, Inc.

F:\AN04\ANA-5440.CDR

Appendix A

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 196 (06-14-90) DP 4-901

5750 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

DISTRICT PERMIT NO. 94D0160

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konman 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (if any): 065IW16M19A

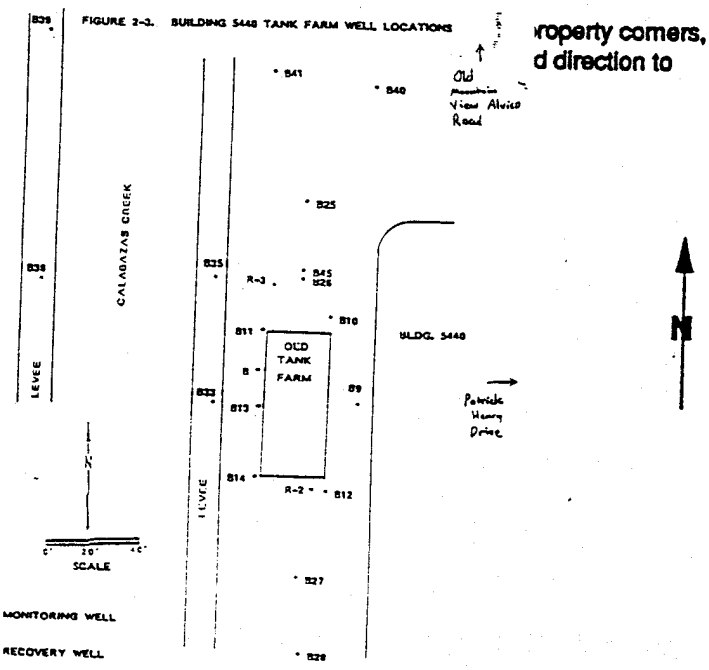
WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: 83W0440 Well No.: R-2

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Site Sh bo ne



roperty corners, d direction to

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes	☐ No NA

REASON FOR SEALING (Check one):

☒ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well? ~~Concrete (parking lot)~~

Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 30 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 8 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. Special Conditions on Permit may be added by District upon receiving completed Application.)

Thomas J. Konman
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0160 * Well No.: 06S1W16M19A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Clay opposite screen)

David C. Bozaya

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 94D0161

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (if any): 06S1W16M-unreg.

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

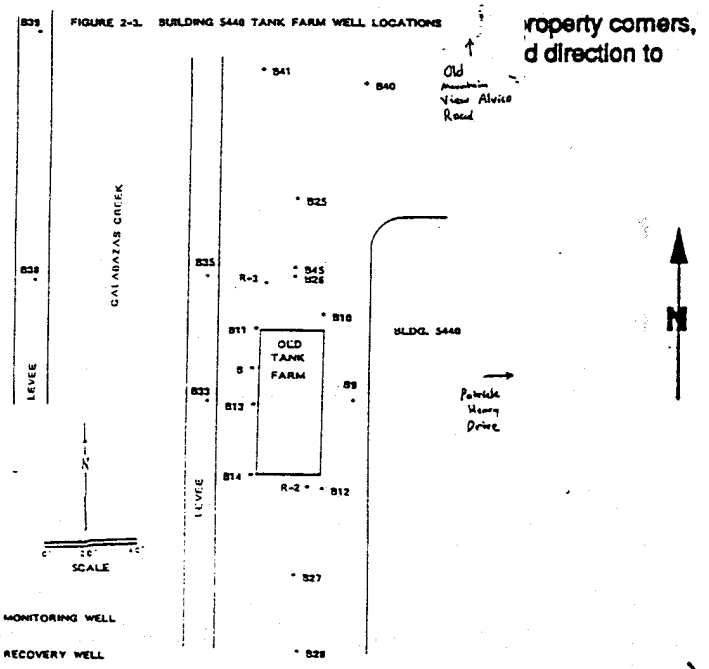
☒ No longer needed ☐ Land development

Well Construction Permit No.: N/A Well No.: R-3

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit

Sh ... roperty corners, bo ... d direction to ne



What is to be placed/constructed on the ground surface over the sealed well? ~~Concrete (parking lot)~~

Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 40 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 8 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan d. Konnan — Contractor's Signature

5-2-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0161 * Well No.: 06S1W16M- unreg.

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(30' of screen - clay opposite screen)

David C. Fogarty

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0162

5700 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

Owner's Name: Anacomp, Inc.	Consultant Firm: EOA, Inc.	Drilling Co.: Bayland Drilling, Inc.
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900 — Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S1W16M17A

Well Construction Permit No.: 83W0030 Well No.: A

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☒ Yes	☐ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

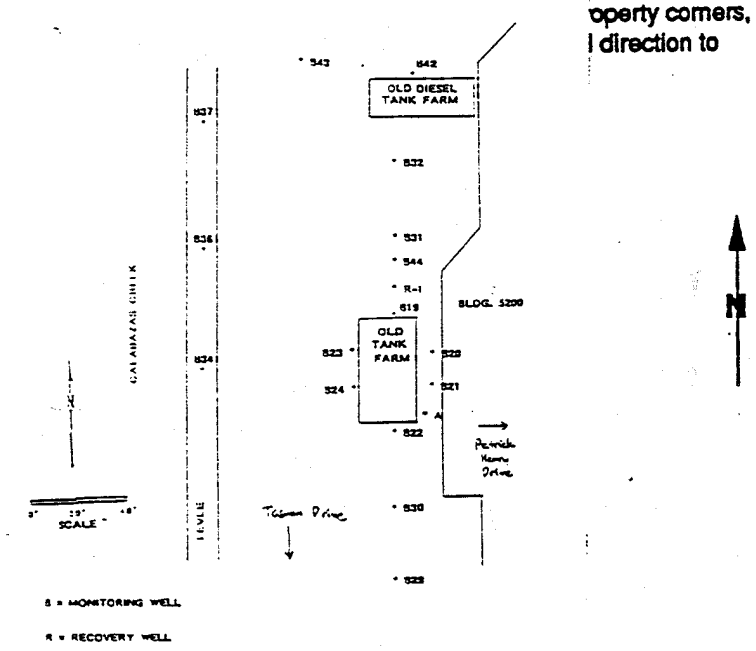
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show ... property corners, boun... direction to near...

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well? Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 40 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan J. Konnan — Contractor's Signature

5-2-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 196 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0162 * Well No.: 06S1W16M1TA

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(excess of 5' of overdrill. No backfill seal.)

SCVWD APPROVED: David C. Jozapa

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0163

750 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Kounan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (If any): 06S1W16M18A

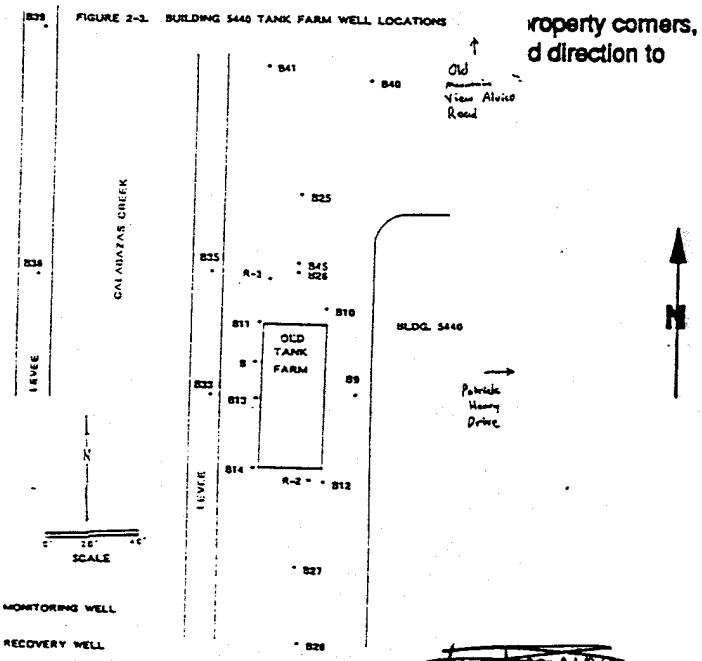
WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: 83W0031 Well No.: B

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit
Sh
bo
ne



roperty corners, d direction to

DOES THE WELL HAVE:

Outer conductor pipe?	☒ Yes	☐ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes (NA)	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well? ~~Concrete~~ ~~Parking lot~~

Grout to surface - landscaping

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 40 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan d. Kounan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 196 (10-14-80)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0163 * Well No.: 06S1W16M18A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Clay opposite screen)

David C. Zozaya

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5 / 23 / 94

Permit No.: 94D0164 * Well No.: 06S1W16M - unreg.

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Clay opposite perforations)

David C. Fogaya

SCVWD APPROVED: _____

District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0164

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S1W16N-unreg

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

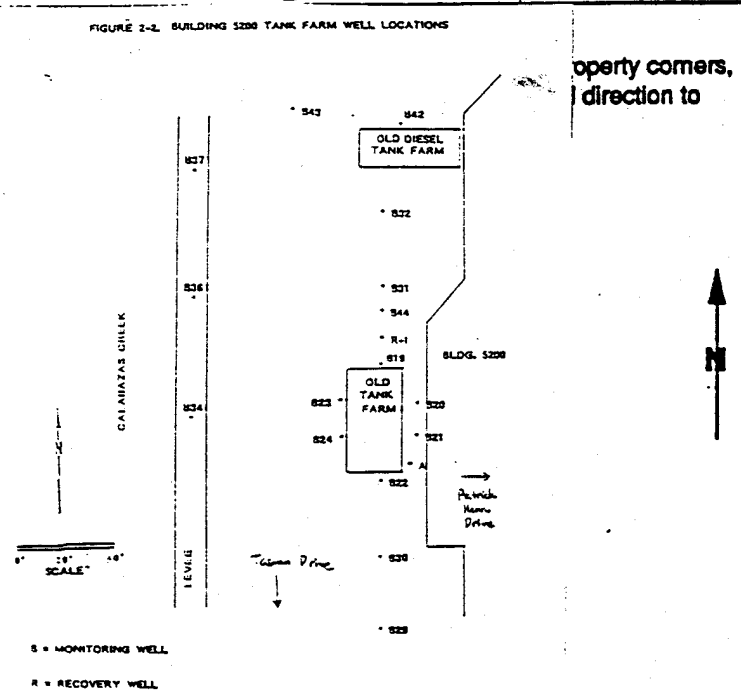
☒ No longer needed ☐ Land development

Well Construction Permit No.: N/A Well No.: R-1

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

Site

Show ... operty corners, boun ... direction to near



What is to be placed/constructed on the ground surface over the sealed well? Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 30 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 12 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan d. Konnan — Contractor's Signature

5-2-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

5750 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

DISTRICT PERMIT NO. 94D0127

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address Suite 203: 22351 City Center Drive	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900
		Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (If any): 06S1W16M3XA

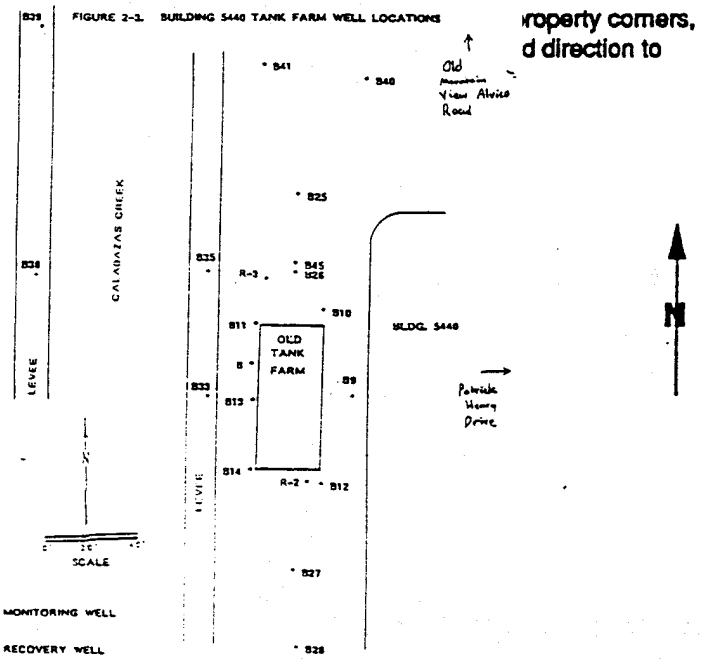
WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: 82W0351 Well No.: B-9

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit
Sh
bo
ne



roperty corners,
d direction to

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well? Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 22 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan — Contractor's Signature

5-2-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0127 * Well No.: 06S1W16M38A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

SCVWD APPROVED: David C. Jozaya

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 196 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0128

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Kounan 510/832-2852	Telephone No.: 415/322-2900
		Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (If any): 06S1W16M35A

Well Construction Permit No.: 82W0352 Well No.: B-10

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

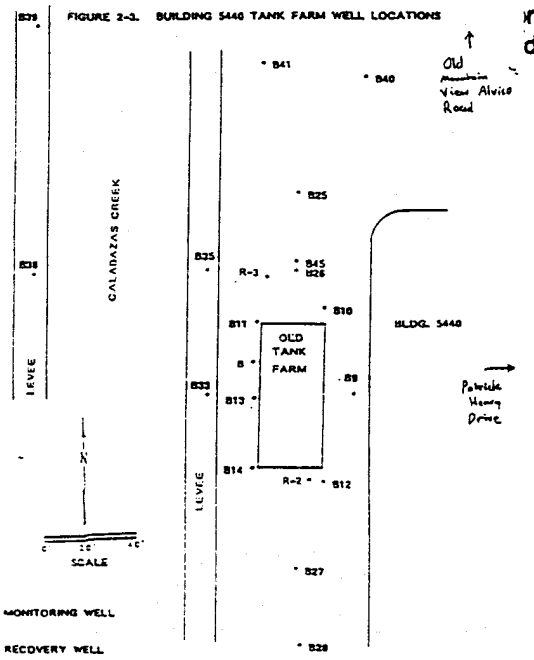
Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Sit
Sh roperty corners,
bo d direction to
ne



What is to be placed/constructed on the ground surface over the sealed well? ~~Concrete (sidewalk, lot)~~ Grout to surface – ~~landscaping~~ parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan dil Conman
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0128 * Well No.: 06S1W16M35A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

SCVWD APPROVED: David C. Jozaya

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0129

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: Suite 203 22351 City Center Drive	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510 / 889-0324	Telephone No.: Jon Konnan 510 / 832-2852	Telephone No.: 415 / 322-2900
		Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (if any): 06S1W16M36A

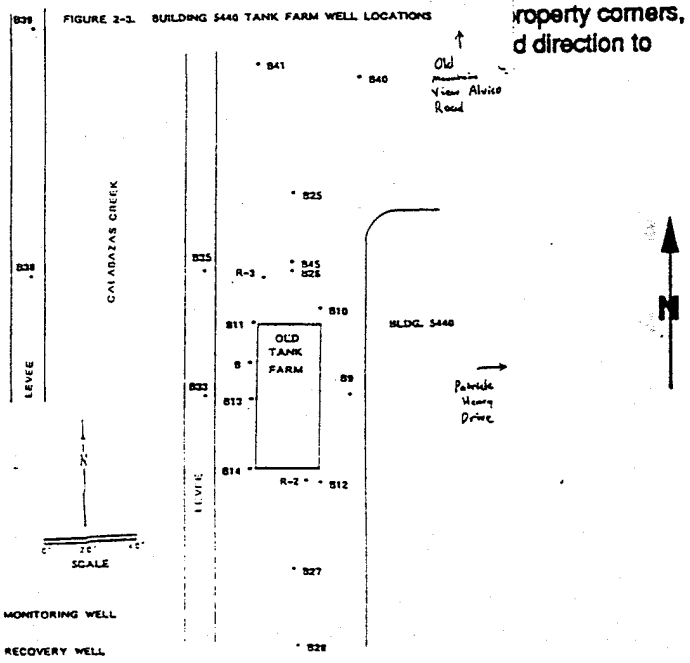
Well Construction Permit No.: 82W0353 Well No.: B-11

Well Address/Location of Well: 5440 Patrick Henry Drive
Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Sit
Sh
bo
ne



roperty corners,
d direction to

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed
☒ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well? Grout to surface - landscaping

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan d. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY
DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0129 * Well No.: 06S1W16M36A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

SCVWD APPROVED: David C. Fogarty

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0130

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: Suite 203 22351 City Center Drive	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Kouncan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (if any): 06S1W16M37A

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

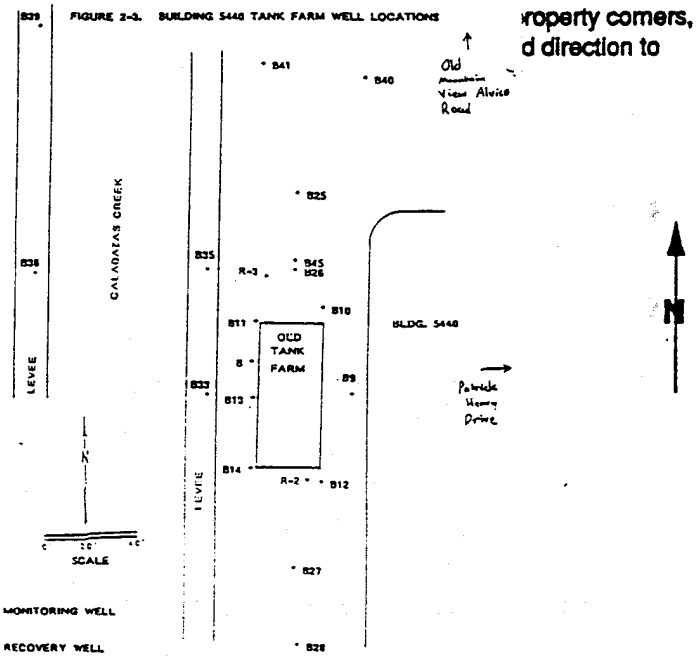
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Well Construction Permit No.: 82W0354 Well No.: B-12

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit
Sh
bo
ne



roperty corners, d direction to

What is to be placed/constructed on the ground surface over the sealed well? Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 30 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan d Kouncan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5 / 23 / 94

Permit No.: 94D0130 * Well No.: 06S1W16M37A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Bozanich

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (06-14-90) DP 4-901

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 94D0131

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900 Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (if any): 06S1W16M38A

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes (NA)	☐ No

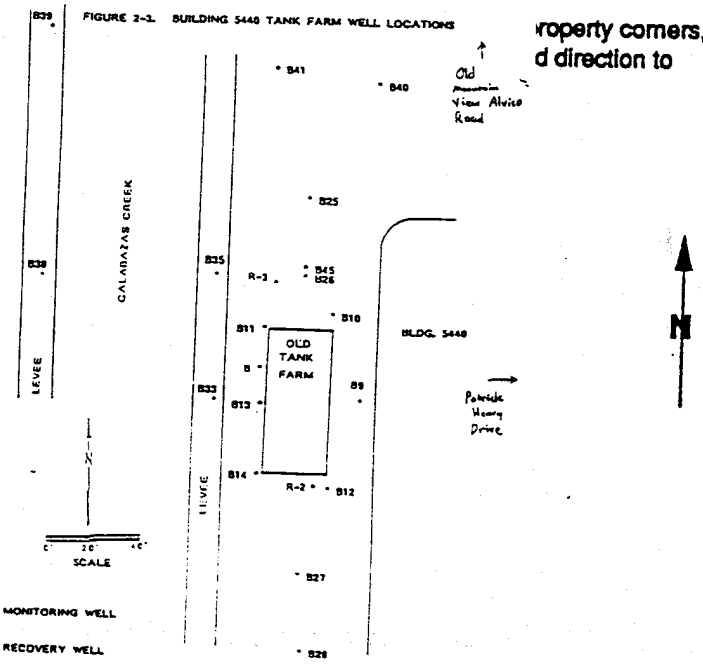
REASON FOR SEALING (Check one):

- ☐ Poor water quality
- ☐ Casing collapsed
- ☒ No longer needed
- ☐ Land development

Well Construction Permit No.: 82W0355 Well No.: B-13

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit
Sh
bo
ne



roperty corners, d direction to

What is to be placed/constructed on the ground surface over the sealed well? Grouted to surface - landscaping

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0131 * Well No.: 06S1W16M38A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Jozapa

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (06-14-90) DP 4-901

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 94D0132

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (If any): 06S/1W/16M39A

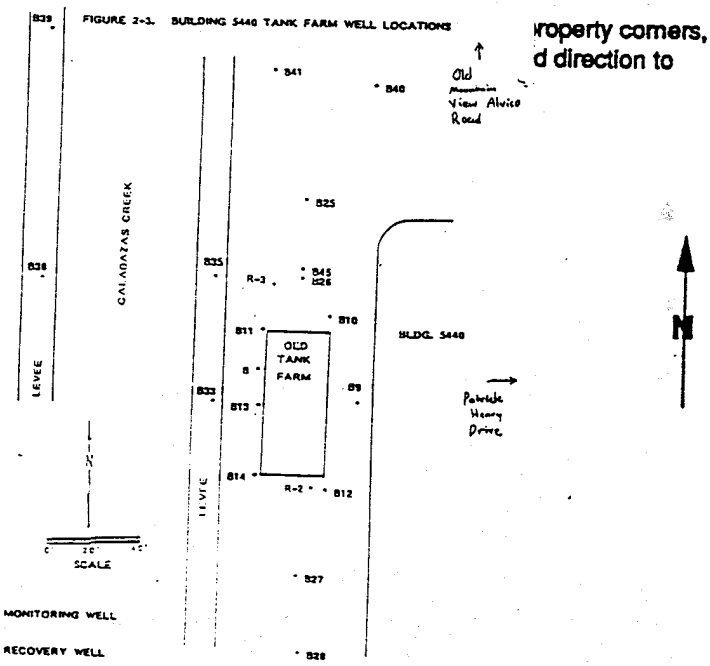
WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: 82W0356 Well No.: B-14

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit
Sh
bo
ne



roperty corners,
d direction to

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
nnular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of asing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed
☒ No longer needed ☐ Land development

hat is to be placed/constructed on the ground surface over the sealed well? Grouted to surface - landscaping

ologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 30 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

ll Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0132 * Well No.: 06S1W16M39A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Bozanich

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0279

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S1W16M07A

Well Construction Permit No.: 83W0357 Well No.: B-15

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

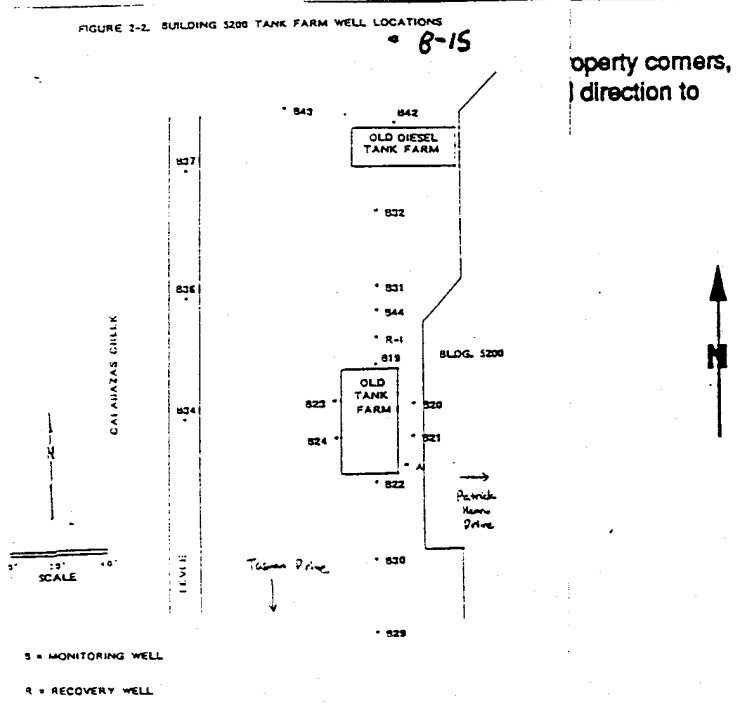
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show ... property corners, boun... direction to near...

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well? Grouted to surface in parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan A. Konnan — Contractor's Signature

6-3-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 6/22/94

Permit No.: 94D0279 * Well No.: 06S1W16M07A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

Well is to be drilled out to true total depth and all debris and hardware removed upon destruction.

David C. Fogarty

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0280

5750 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (If any): 06S/1W/16M08A

Well Construction Permit No.: 82W0358 Well No.: B-16

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

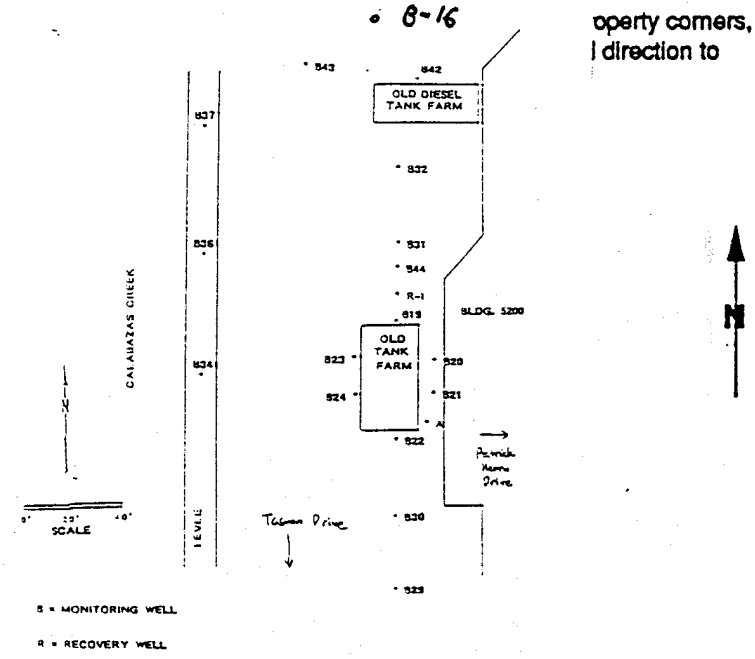
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show property corners, boundaries, and direction to nearest street.

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well? Grout to surface in parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan L. Konnan
Contractor's Signature

6-3-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 6/22/94

Permit No.: 94D0280 * Well No.: 06S1W16M08A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

Well is to be drilled out to true total depth and all debris and hardware removed upon destruction.

David C. Jozaya

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0281

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Tenacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900
		Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S1W16M09A

Well Construction Permit No.: 82W0359 Well No.: B-17

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes (NA)	☐ No

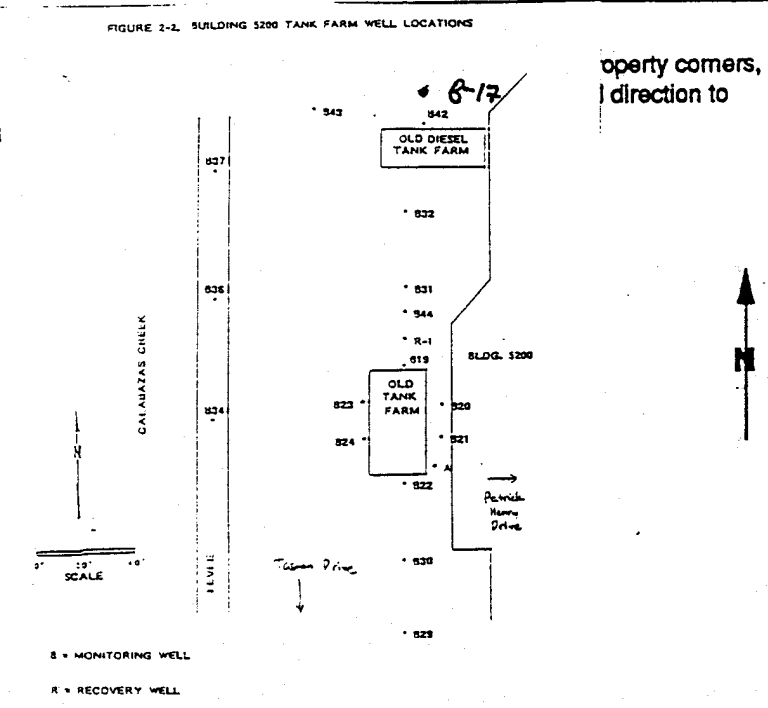
REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show property corners, boundaries, and direction to nearest



What is to be placed/constructed on the ground surface over the sealed well? Grout to surface in parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan
Contractor's Signature

6-3-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 6/22/94

Permit No.: 94D0281 * Well No.: 06S1W16M09A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

Well is to be drilled out to true total depth and all debris and hardware removed upon destruction.

David C. Fojonja

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0282

5[redacted]0 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
[redacted]nacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
[redacted]ress Suite 203 22351 City Center Drive	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue	
[redacted], State, Zip: [redacted]ayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd [redacted]510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S1W16M10A

Well Construction Permit No.: 82W0360 Well No.: B-18

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

[redacted]LL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant s[redacted]ll make necessary on-site investigation to d[redacted]ermine correct answers.

[redacted]ES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
[redacted]nular concrete seal outside [redacted]casing at surface?	☒ Yes	☐ No
A gravel envelope outside of [redacted]sing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

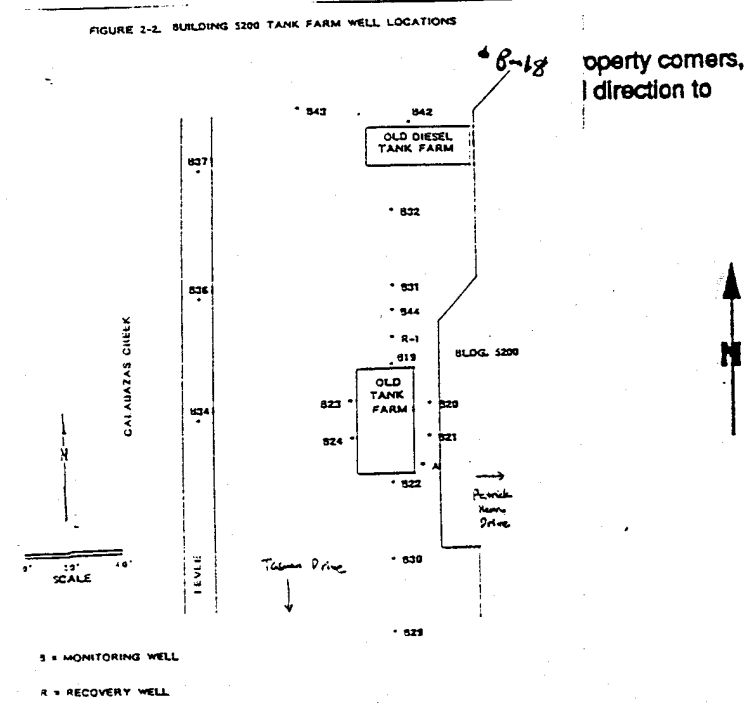
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show [redacted] operty corners, boun[redacted] direction to near[redacted]

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



[redacted]hat is to be placed/constructed on the ground surface over the sealed well? Grout to surface in parking lot

[redacted]eologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

[redacted]ell Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. [redacted]Special Conditions on Permit may be added by District upon receiving completed Application.)

[signature] 6-3-94

Contractor's Signature Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 6/22/94

Permit No.: 94D0282 * Well No.: 06S/1W/16M/10A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

Well is to be drilled out to true total depth and all debris and hardware removed upon destruction.

David C. Jozaya

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 196 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0133

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: Suite 203 2351 City Center Drive	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900
		Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S1W16M11A

Well Construction Permit No.: 82W0361 Well No.: B-19

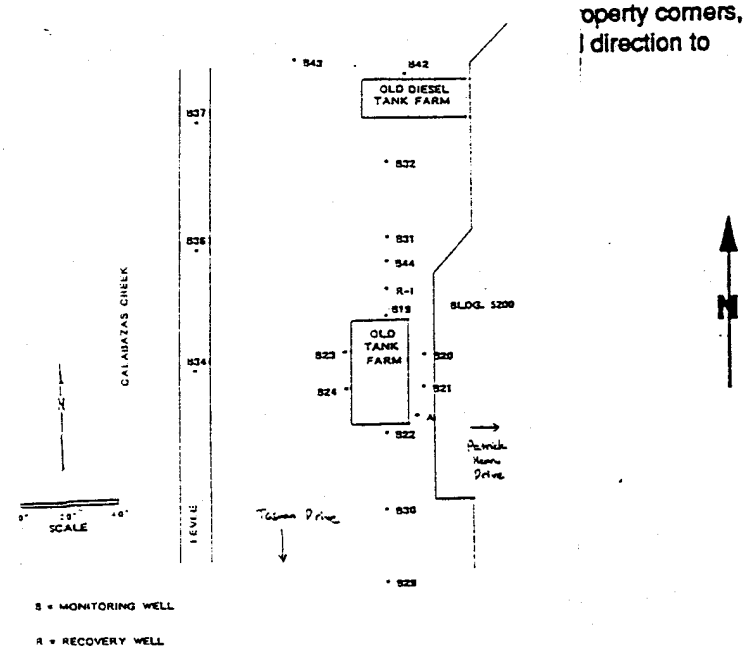
Well Address/Location of Well: 5200 Patrick Henry Drive
Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Site
Show property corners, boundaries and direction to nearest street.

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes (NA)	☐ No

REASON FOR SEALING (Check one):

☒ Poor water quality ☐ Casing collapsed
☒ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well?
Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY
DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0133 * Well No.: 06S/1W16 M11A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

SCVWD APPROVED: David C. Fozoya

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0134

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900 Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (If any): 06S1W10M12A

Well Construction Permit No.: 82W0362 Well No.: B-20

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

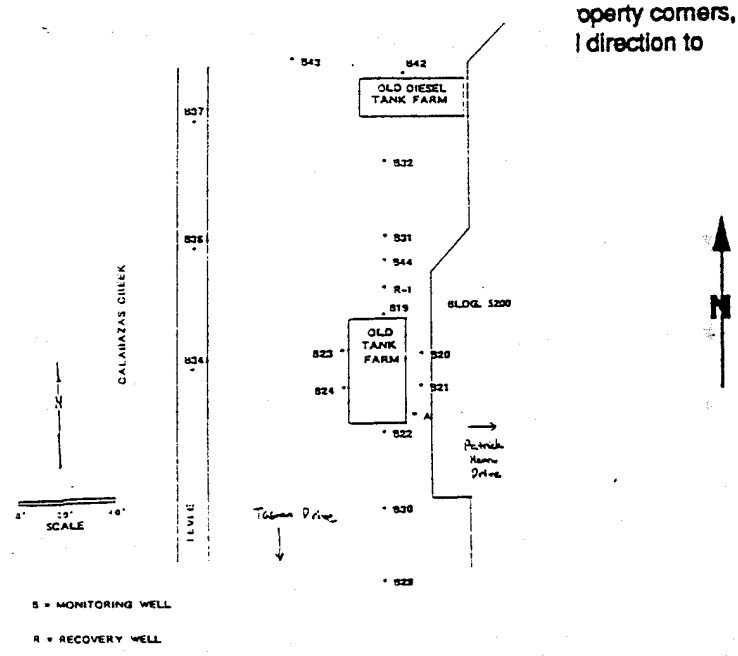
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show property corners, boundaries and direction to nearest street.

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well?

Grout to surface – parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 196 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0134 * Well No.: 06S/1W16M12A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

SCVWD APPROVED: David C. Bozanich

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0135

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name: Amacomp, Inc.	Consultant Firm: EOA, Inc.	Drilling Co.: Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 065W/6M/3A

Well Construction Permit No.: 82W0363 Well No.: B-21

Well Address/Location of Well: 5200 Patrick Henry Drive, Santa Clara, CA

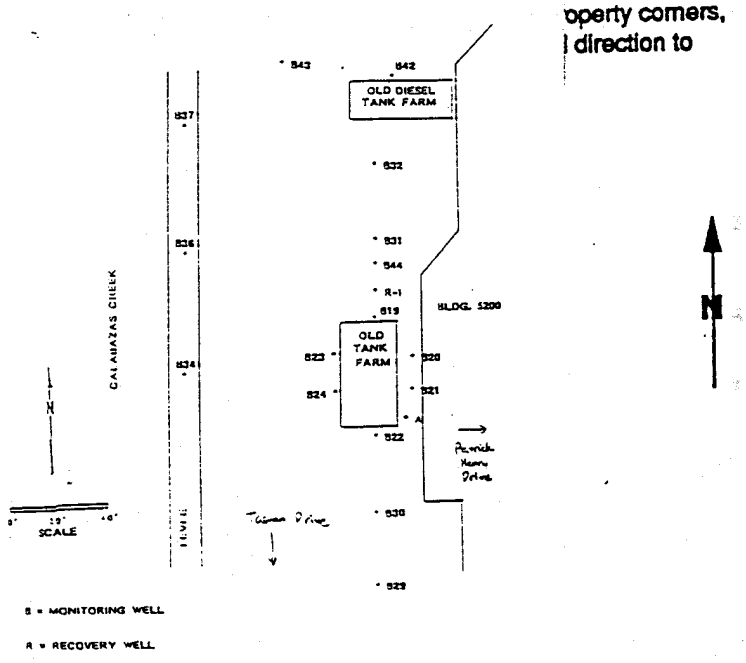
WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Site

Show property corners, boundaries and direction to nearest cross street.

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well? Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan d. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0135 * Well No.: 06S/1W16 M13A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Bozaya

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0136

5750 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Amacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900 — Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S/1W16M14A

Well Construction Permit No.: 82W0304 Well No.: B-22

Well Address/Location of Well: 5200 Patrick Henry Drive, Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

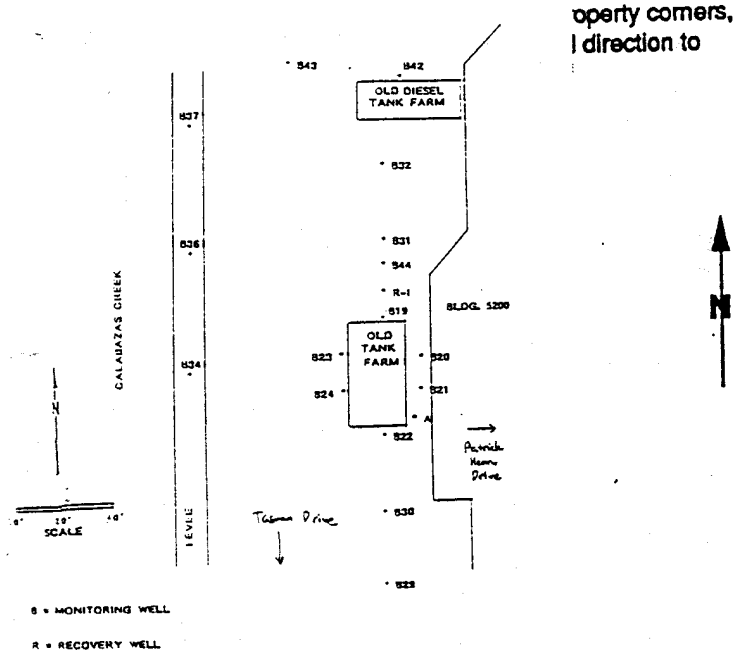
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show property corners, boundaries, and direction to nearest cross street.

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well?

Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0136 * Well No.: 06S1W16M14A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Bozanich

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0137

5750 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Enacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900 — Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (If any): 06S1W16M15A

Well Construction Permit No.: 82W0365 Well No.: B-23

Well Address/Location of Well: 5200 Patrick Henry Drive, Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes (NA)	☐ No

REASON FOR SEALING (Check one):

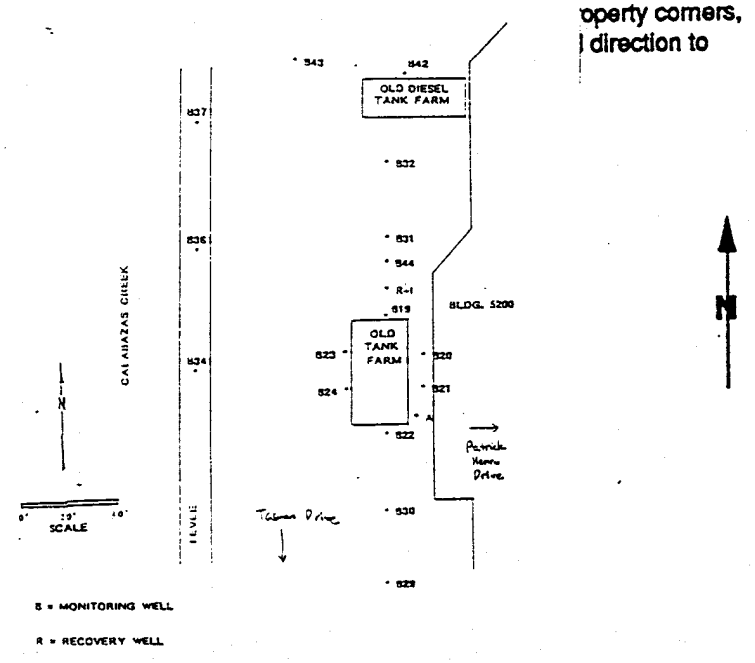
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show property corners, boundaries, and direction to nearest street or intersection.

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well? Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan L. Cann — Contractor's Signature

5-2-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0137 * Well No.: 06S/1W16M15A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

SCVWD APPROVED: David C. Fozoya

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0138

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S1W16M16A

Well Construction Permit No.: 82W0366 Well No.: B-24

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

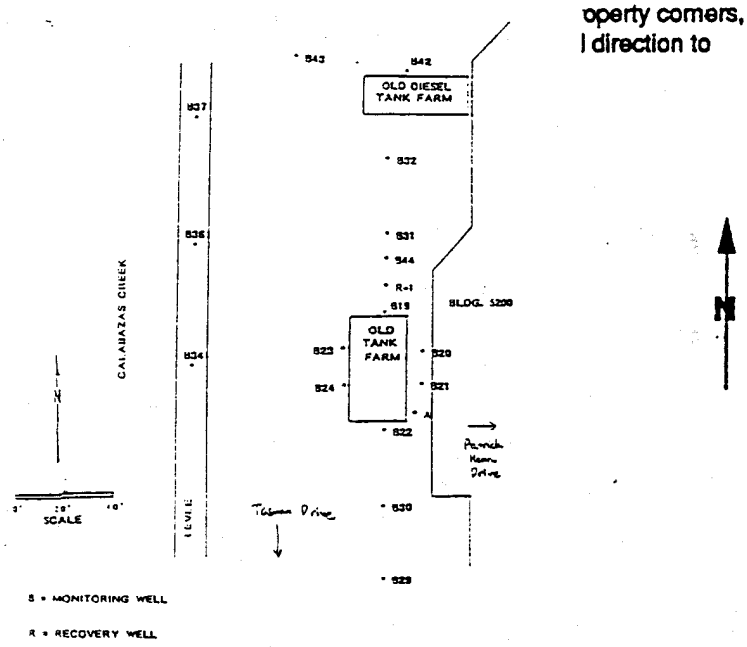
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show ... operty corners, boun... l direction to near...

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well? Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan J. Konnan — Contractor's Signature

5-2-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0138 * Well No.: 06S1W16 M16A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

SCVWD APPROVED: David C. Jozoya

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 196 (08-14-90) DP 4-901

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 94D0139

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: Suite 203 22351 City Center Drive	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (if any): 06S1W16M29A

Well Construction Permit No.: 82W0250 Well No.: B-25

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

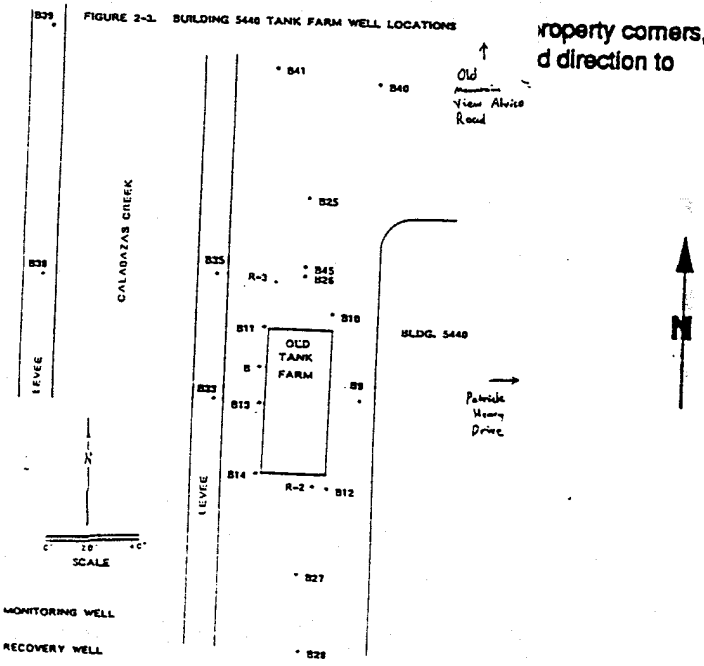
DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

- ☒ Poor water quality
- ☐ Casing collapsed
- ☒ No longer needed
- ☐ Land development

Sit
Sh
bo
ne



roperty corners, d direction to

What is to be placed/constructed on the ground surface over the sealed well? Grouted to surface – parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan d. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0139 * Well No.: 06S1W16M29A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Fozzaya

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (06-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0140

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: Suite 203 22351 City Center Drive	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (if any): 06S1W16M28A

WELL FEATURES:

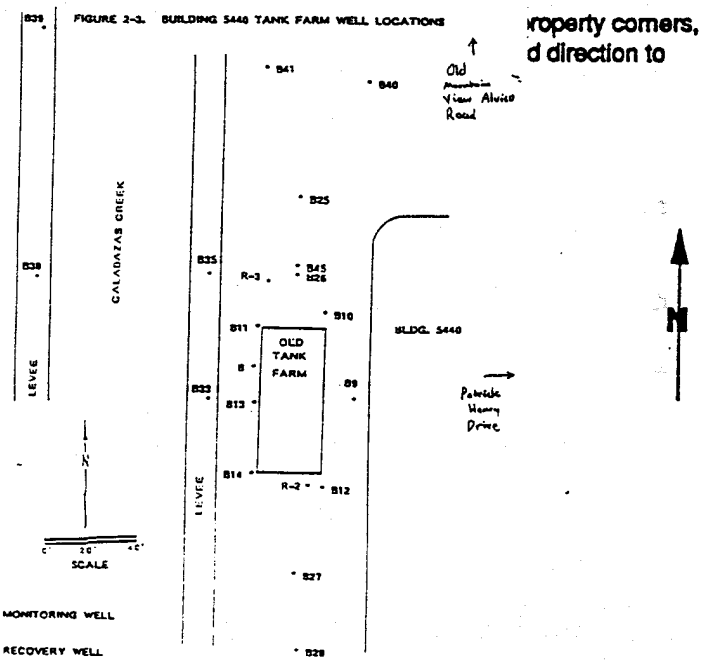
All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: 82W0249 Well No.: B-26.

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit
Sh
bo
ne

roperty corners, d direction to



DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed
☒ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well? Grouted to surface — parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0140 * Well No.: 06S1W16M28A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Fozaya

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 94D0141

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (if any): 06S1W16M31A

WELL FEATURES:

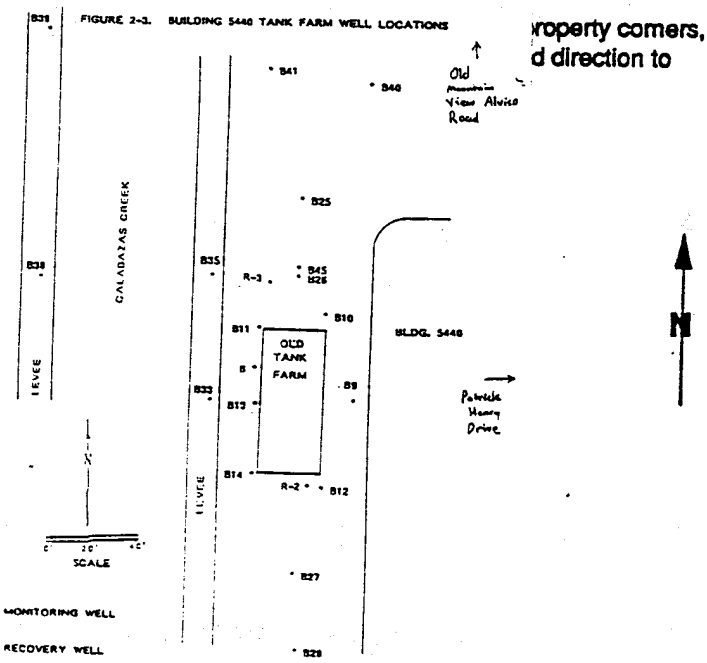
All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: 82W0252 Well No.: B-27

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit

Sh ... property corners, bo ... d direction to ne



DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☒ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well? Grouted to surface — parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan d. Konnan — Contractor's Signature

5-2-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0141 * Well No.: 06S1W16M31A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Bozanich

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 94D0142

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (if any): 06S/1W/16M30A

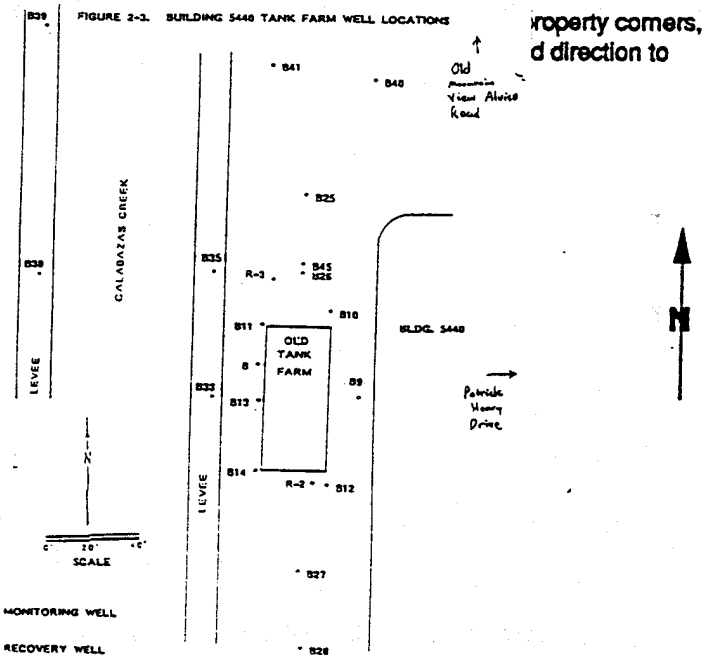
WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: 82W0251 Well No.: B-28

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit
Sh
bo
ne



roperty corners, d direction to

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well? Grouted to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0142 * Well No.: 06S1W16M30A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Fozaya

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0143

5750 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900 Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (If any): 06S1W16M01A

Well Construction Permit No.: 82W0255 Well No.: B-29

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

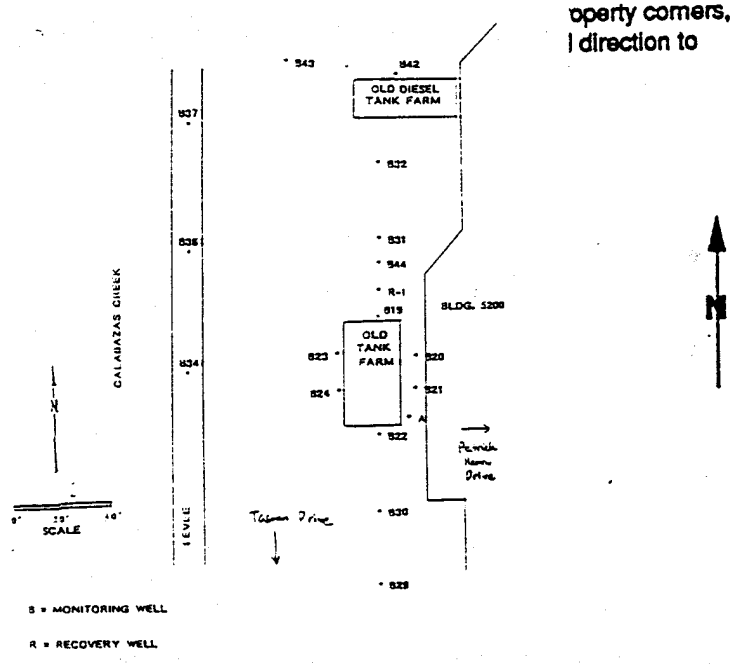
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show property corners, boundaries, and direction to nearest cross street.

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well?

Grout to surface – parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 196 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0143 * Well No.: 06S1W16M01A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Fozzaya

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0144

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900
		Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S1W16M03A

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

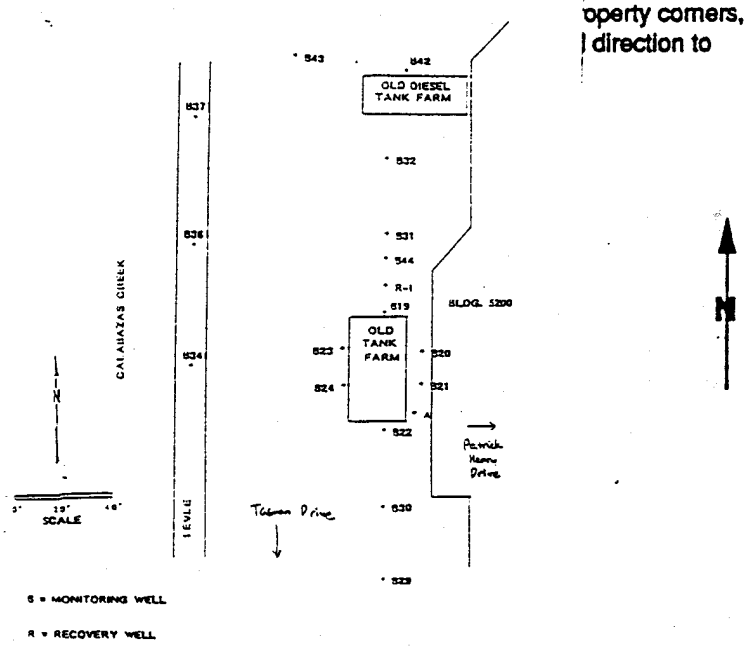
Well Construction Permit No.: 82W0256 Well No.: B-30

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

Site

Show property corners, boundaries and direction to nearest cross street.

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well?

Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0144 * Well No.: 06S1W16M03A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

SCVWD APPROVED: David C. Jozaya

* District will provide a well number if not now numbered.

Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 196 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0145

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Amacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900
		Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S/1W/16M02A

Well Construction Permit No.: 82W0254 Well No.: B-31

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
Gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

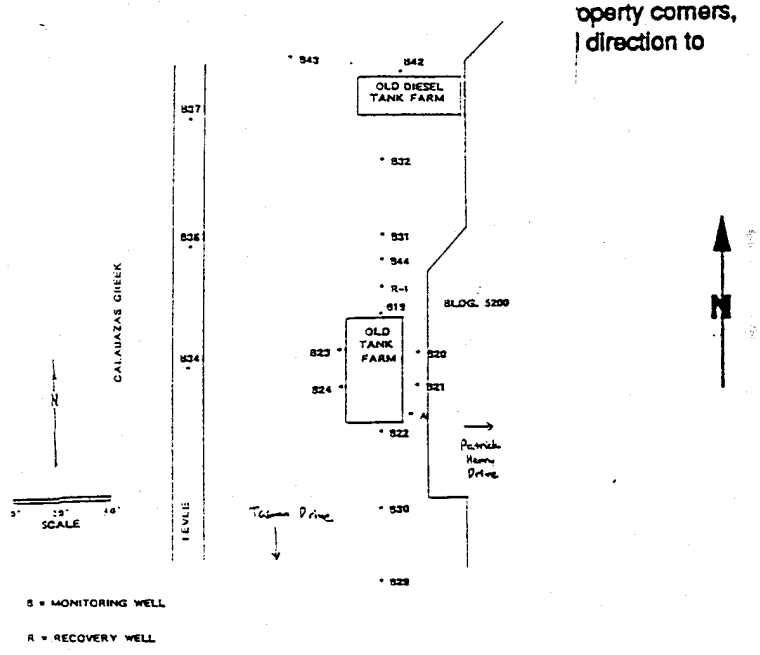
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show property corners, boundaries, and direction to nearest cross street.

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well? Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan — Contractor's Signature

5-2-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0145 * Well No.: 06S1W16M02A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Fojtasek

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 196 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0146

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900
		Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S1W16M01A

Well Construction Permit No.: 82W0253 Well No.: B-32

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes (NA)	☐ No

REASON FOR SEALING (Check one):

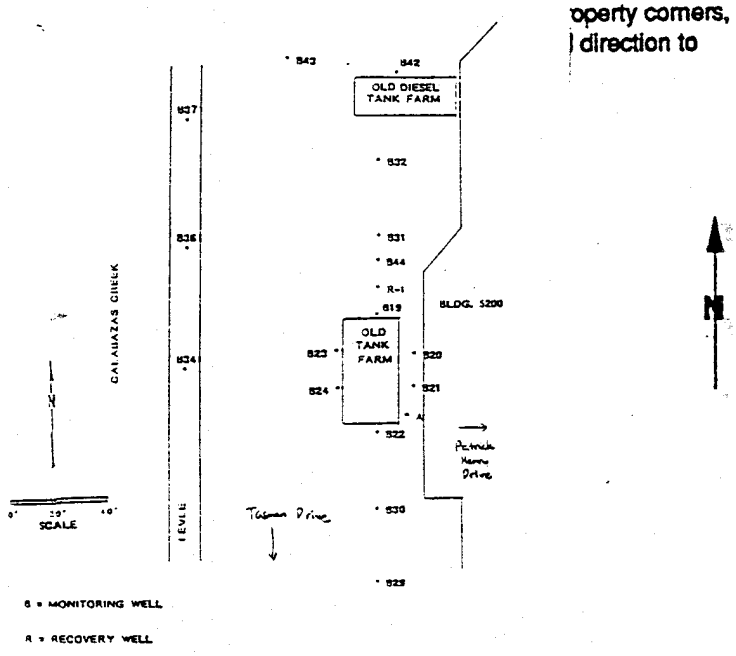
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show property corners, boundaries, and direction to nearest cross street.

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well?

Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan dil Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0140 * Well No.: 06S1W16M01A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Bozanich

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0147

5750 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: 2351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Kounan 510/832-2852	Telephone No.: 415/322-2900
		Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (If any): 06S1W16M-UNREG

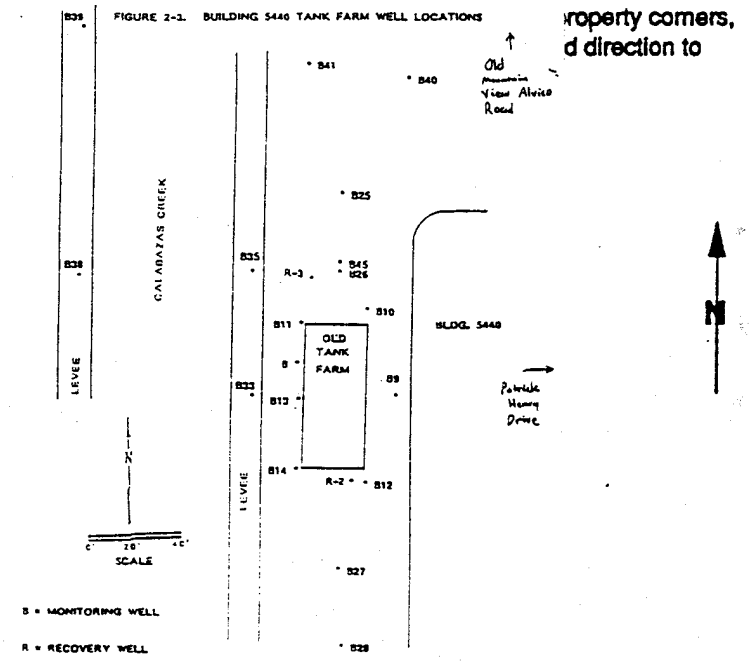
WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: N/A Well No.: B-33

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit
Sh
bo
ne



roperty corners, d direction to

DOES THE WELL HAVE:

Water conductor pipe?	☐ Yes	☑ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes (NA)	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☐ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well? Grouted to surface - SCVWD access road

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 31 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Kounan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0147 * Well No.: 06S1W16M-unreg

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Clay opposite perforations. Less than 5' seal.)

SCVWD APPROVED: David C. Fojaya

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0148

575 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

Owner's Name: Aracomp, Inc.	Consultant Firm: EOA, Inc.	Drilling Co.: Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): CDSIWL6M-Unreg

Well Construction Permit No.: N/A Well No.: B-34

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

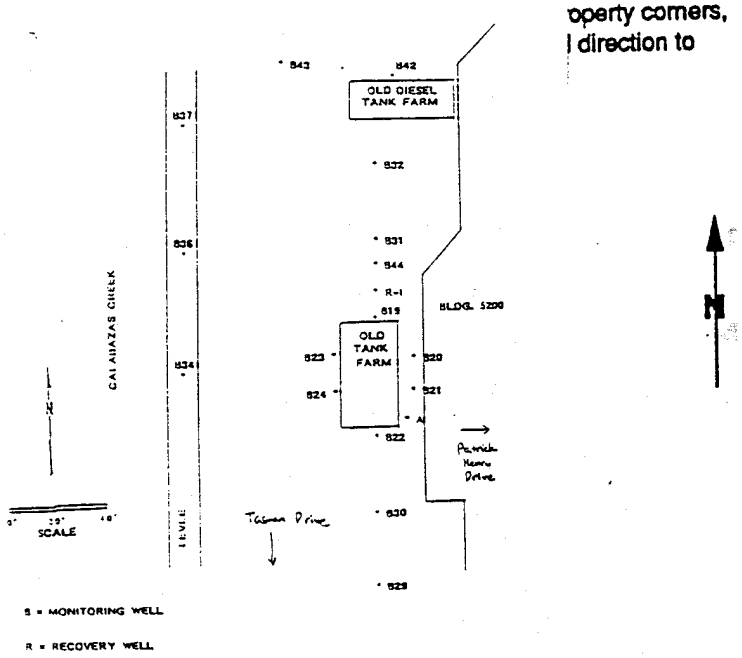
☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

Site

Show property corners, boundaries, and direction to nearest cross street.

FIGURE 2-2, BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well? Grout to surface - SCVWD access road

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 30 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0148 * Well No.: 06S1W16M - unreg.

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Clay opposite perforations. Less than 5' seal.)

SCVWD APPROVED: David C. Jozaya

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 94D0149

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: Suite 203 22351 City Center Drive	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konman 510/832-2852	Telephone No.: 415/322-2900 Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (If any): 06S/1W/16M33A

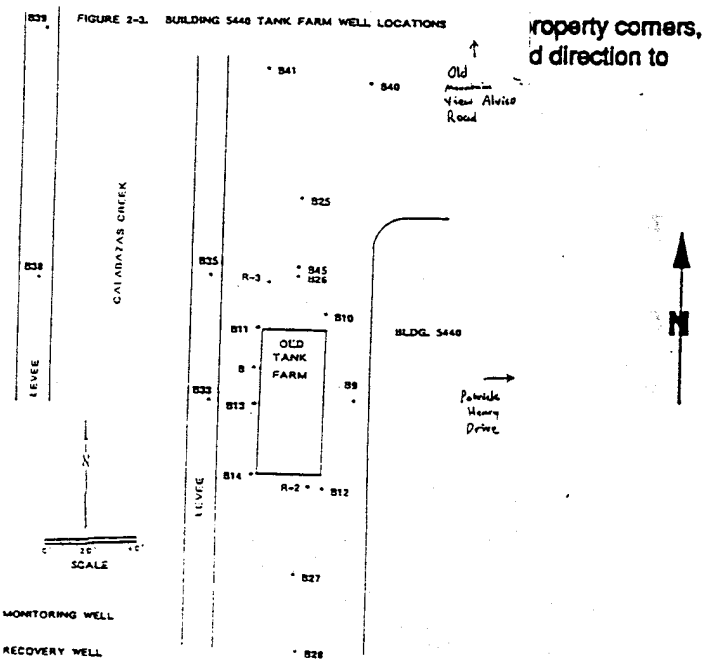
WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: 82WC2106 Well No.: B-35

Well Address/Location of Well: 5440 Patrick Henry Drive
Santa Clara, CA

Sit
Sh
bo
ne



DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

- ☒ Poor water quality
- ☐ Casing collapsed
- ☒ No longer needed
- ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well?
Grout to surface - SCVWD access road

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 30 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konman
Contractor's Signature

5-24-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0149 * Well No.: 06S/1W/16M33A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Excess sandpack 12' above screen)

David C. Jozaya

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-001

DISTRICT PERMIT NO. 94D0150

750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: Suite 203 22351 City Center Drive	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900
		Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (If any): 06S1W16M-unreg

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

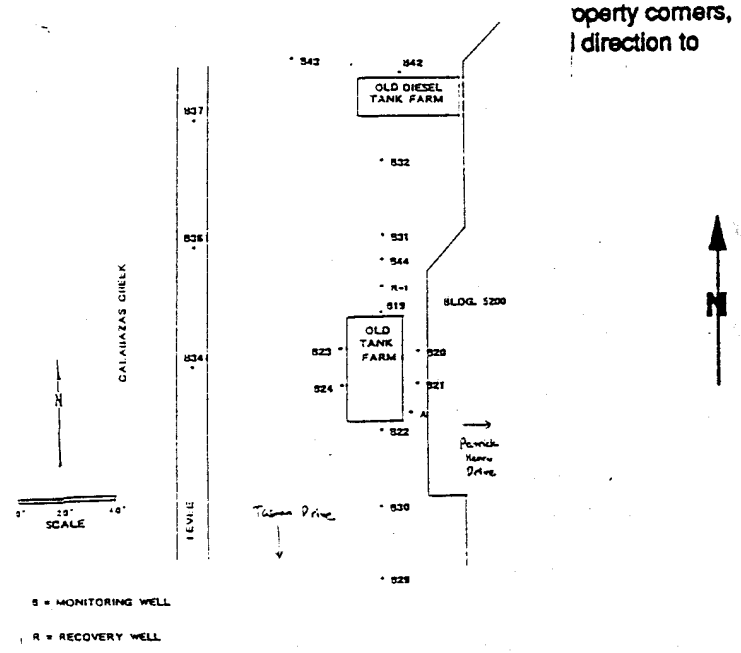
Well Construction Permit No.: N/A Well No.: B-36

Well Address/Location of Well: 5200 Patrick Henry Drive
Santa Clara, CA

Site

Show property corners, boundaries and direction to nearest

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well? Grout to surface SCVWD access road

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 30 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0150 * Well No.: 06S1W16N1-unreg.

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Clay opposite perforations. Less than 5' seal.)

David C. Jozaya

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0151

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): DESTRUCTION - UNKNOWN

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

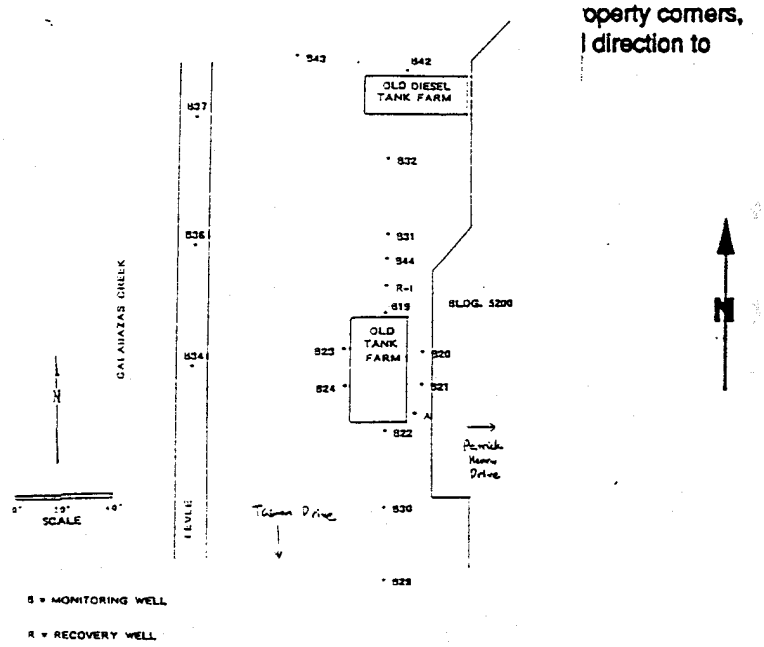
Well Construction Permit No.: N/A Well No.: B-37

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

Site

Show property corners, boundaries and direction to nearest cross street.

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well? Grouted to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 30 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan Konnan — Contractor's Signature

5-2-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 196 (18-14-00)

*** DISTRICT USE ONLY ***

Date Issued: 5 / 23 / 94

Permit No.: 94D0151 * Well No.: 06S1W10M - unreg.

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Clay opposite perforations. Less than 5' seal.)

SCVWD APPROVED: David C. Jozaya

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 94D0152

Owner's Name:	Consultant Firm:	Drilling Co.:
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.
Address: Suite 203 22351 City Center Drive	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025
Telephone No.: Chris van der Woerd 510 / 889-0324	Telephone No.: Jon Konnan 510 / 832-2852	Telephone No.: 415 / 322-2900 Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (If any): 01S/1W/16M-UNKN

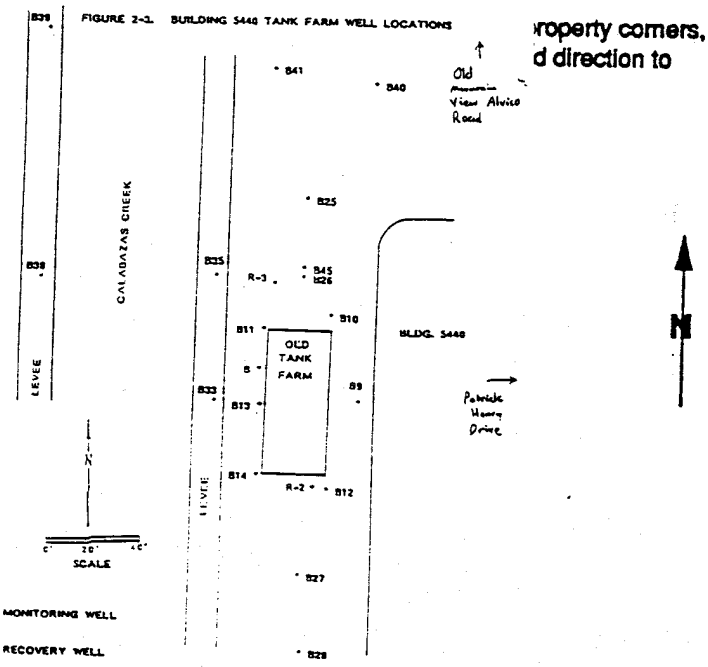
WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: N/A Well No.: B-38

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit
Sh
bo
ne



roperty corners, d direction to

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☒ Poor water quality ☐ Casing collapsed
☒ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well?
Grouted to surface - SCVWD access road

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 43 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan di Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY
DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 196 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0152 * Well No.: 06S1W 16 M - unreg.

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(3' sandpack - clay opposite perforations)

SCVWD APPROVED: David C. Zozaya

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 94D0153

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (if any): 06S1W16M-unreg.

WELL FEATURES:

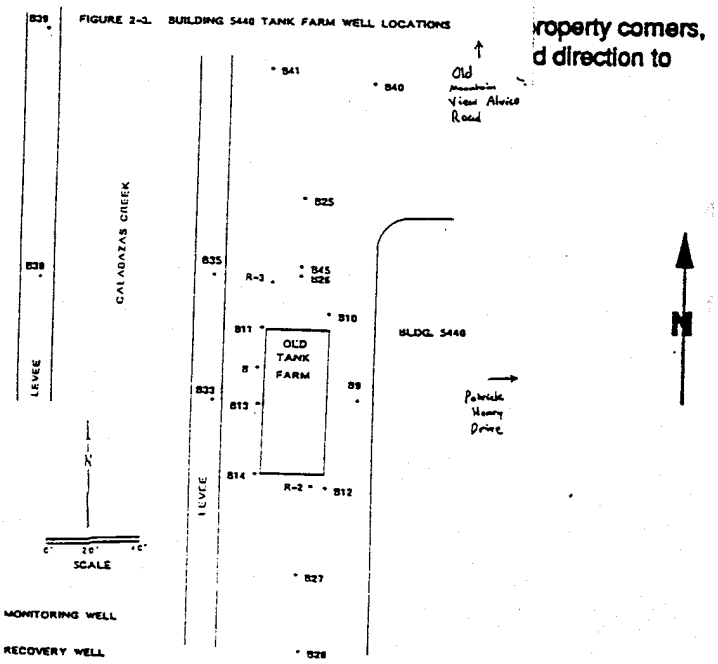
All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: N/A Well No.: B-39

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit

Sh ... roperty corners, bo ... d direction to ne



DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well? Grouted to surface - SCVWD access road

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 41 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan d. Konnan — Contractor's Signature

5-2-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5 / 23 / 94

Permit No.: 94D0153 * Well No.: 06S1W16M - unreg.

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Clay opposite perforations)

SCVWD APPROVED: David C. Zozaya

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 196 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0154

5750 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: Suite 203 22351 City Center Drive	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510 / 889-0324	Telephone No.: Jon Kounan 510 / 832-2852	Telephone No.: 415 / 322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (If any): 06S1W16M43A

WELL FEATURES:

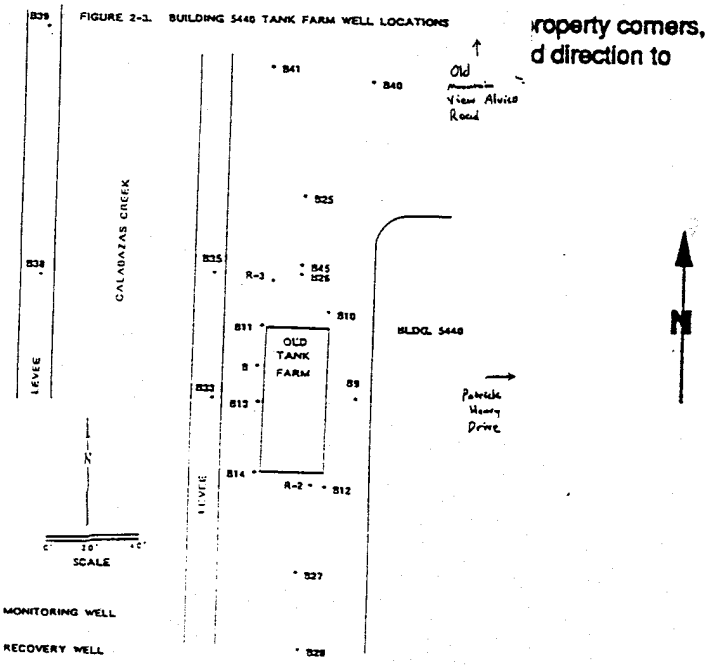
All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: 84W0782 Well No.: B-40

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit

Sh
bo
ne



roperty corners,
d direction to

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

What is to be placed/constructed on the ground surface over the sealed well?

Grouted to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan d. Kounan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 196 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0154 * Well No.: 06S1W16M43A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Jozaya

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 196 (08-14-90) DP 4-901

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 94D0155

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (if any): 06S1W16M44A

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

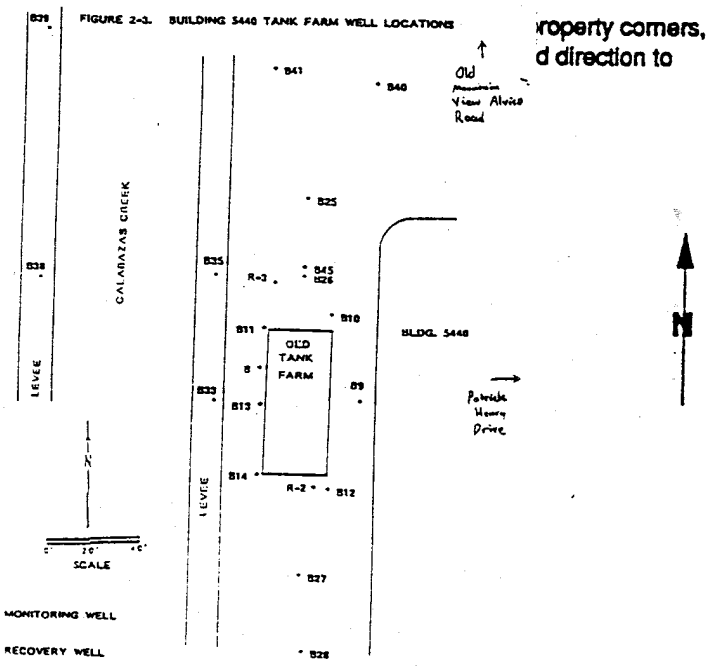
☒ No longer needed ☐ Land development

Well Construction Permit No.: 84W0783 Well No.: B-41

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit

Sh ... roperty corners, bo ... d direction to ne



What is to be placed/constructed on the ground surface over the sealed well? Grouted to surface - landscaping

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Konnan — Contractor's Signature

5-2-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0155 * Well No.: D6S1W16M44A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

SCVWD APPROVED: David C. Jozaya

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0156

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S1W16N03A

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

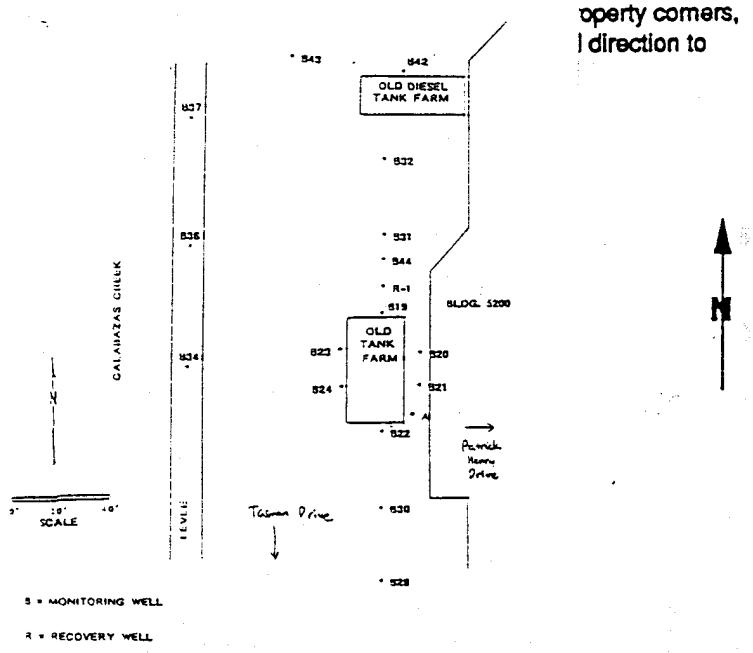
Well Construction Permit No.: 84W0784 Well No.: B-42

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

Site

Show ... operty corners, boun... l direction to near...

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well? Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

[signature] 5-2-94

Contractor's Signature Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 196 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0156 * Well No.: 06S1W16N03A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Bozanich

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0157

5750 ALMADEN EXPRESSWAY ● SAN JOSE, CA 95118 ● (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): 06S1W16N03A

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes (NA)	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

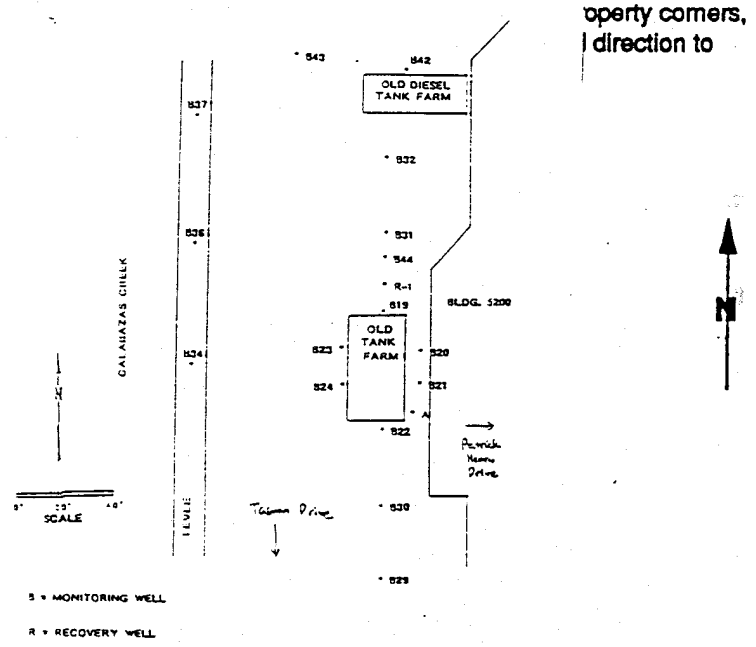
Well Construction Permit No.: 84W0785 Well No.: B-43

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

Site

Show property corners, boundaries and direction to nearest

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well? Grout to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 20 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan Konnan — Contractor's Signature

5-2-94 — Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0157 * Well No.: 06S1W16N02A

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(Less than 5' seal - clay opposite screen)

David C. Fozzy

SCVWD APPROVED: _____

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

DISTRICT PERMIT NO. 94D0158

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Avenue	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-011 Well Registration No. (if any): D10S1W10M-unreg

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

DOES THE WELL HAVE:

Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside of casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☐ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

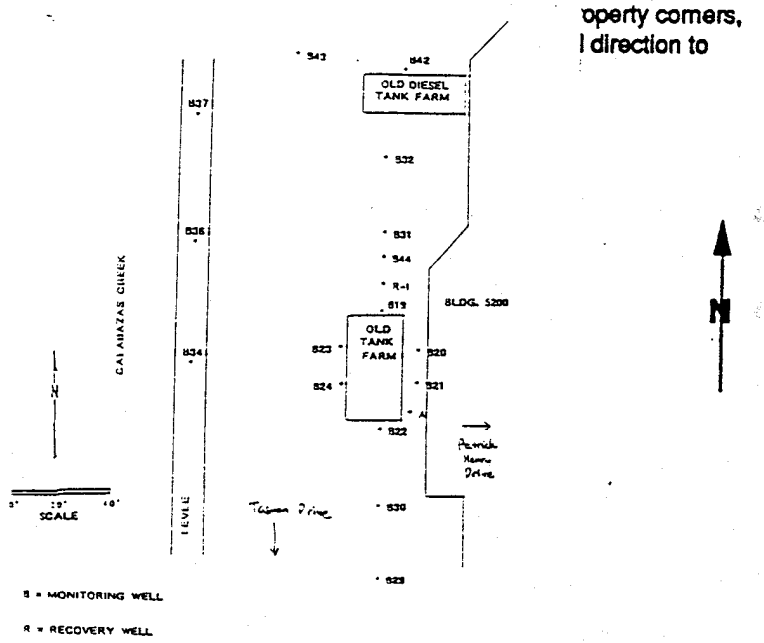
Well Construction Permit No.: N/A Well No.: B-44

Well Address/Location of Well: 5200 Patrick Henry Drive Santa Clara, CA

Site

Show property corners, boundaries and direction to nearest cross street.

FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well?

Grouted to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 30 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan D. Kann
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0158 * Well No.: 06S1W16M-unreg.

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **
(3' sandpack)

SCVWD APPROVED: David C. Fozaya

* District will provide a well number if not now numbered.

Santa Clara Valley Water District

WELL DESTRUCTION APPLICATION

FC 198 (08-14-90) DP 4-901

5750 ALMADEN EXPRESSWAY • SAN JOSE, CA 95118 • (408) 265-2600

DISTRICT PERMIT NO. 94D0159

Owner's Name:	Consultant Firm:	Drilling Co.:	
Anacomp, Inc.	EOA, Inc.	Bayland Drilling, Inc.	
Address: 22351 City Center Drive Suite 203	Address: 1410 Jackson St.	Address: 811 Hamilton Ave.	
City, State, Zip: Hayward, CA 94541	City, State, Zip: Oakland, CA 94612	City, State, Zip: Menlo Park, CA 94025	
Telephone No.: Chris van der Woerd 510/889-0324	Telephone No.: Jon Konnan 510/832-2852	Telephone No.: 415/322-2900	Contractor's Lic. No. (C-57 Req'd): 374152

The well to be destroyed is located on Assessor's Parcel No.: 104-50-016 Well Registration No. (if any): DWR Willow-Valley

WELL FEATURES:

All items below are to be completed before permit can be issued; if unknown, Applicant shall make necessary on-site investigation to determine correct answers.

Well Construction Permit No.: N/A Well No.: B-45

Well Address/Location of Well: 5440 Patrick Henry Drive Santa Clara, CA

Sit

Sh property corners, bo d direction to ne

DOES THE WELL HAVE:

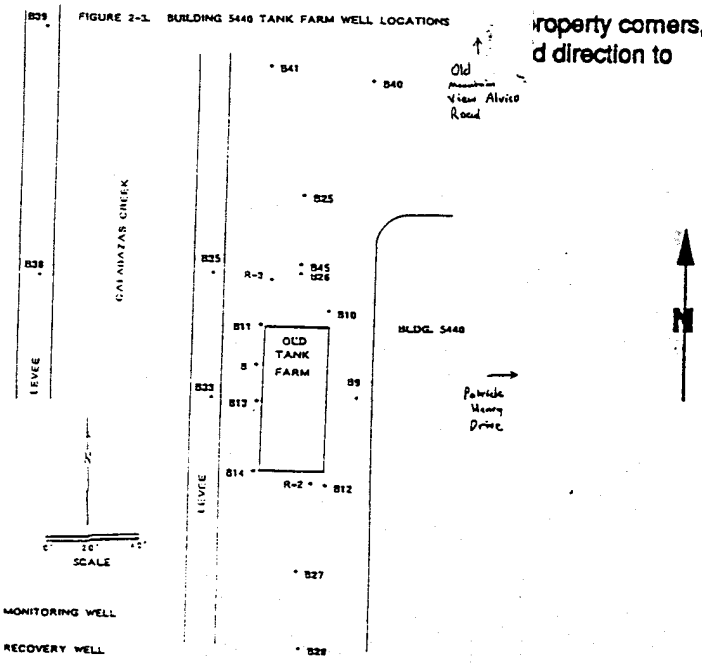
Outer conductor pipe?	☐ Yes	☒ No
Annular concrete seal outside casing at surface?	☒ Yes	☐ No
A gravel envelope outside of casing at surface?	☐ Yes	☒ No
A water meter attached? (Water well only)	☐ Yes NA	☐ No

REASON FOR SEALING (Check one):

☒ Poor water quality ☐ Casing collapsed

☒ No longer needed ☐ Land development

FIGURE 2-1. BUILDING 5440 TANK FARM WELL LOCATIONS



What is to be placed/constructed on the ground surface over the sealed well?

Grouted to surface - parking lot

Geologic setting: 1 (See Figure 1, Construction Standards).

Well Depth: 25 feet. (If unknown, make sounding; accuracy is to be within 5 feet.)

Well Diameter: 2 inches.

I understand that all work is to be done in accordance with District Well Standards, and conditions of permit on the reverse side. (Special Conditions on Permit may be added by District upon receiving completed Application.)

Jonathan d. Konnan
Contractor's Signature

5-2-94
Date

APPLICANT TO COMPLETE ALL INFORMATION ON THIS SIDE ONLY

DISTRICT WILL PREPARE PERMIT ON REVERSE SIDE AND RETURN TO APPLICANT

Santa Clara Valley Water District

FC 198 (18-14-90)

*** DISTRICT USE ONLY ***

Date Issued: 5/23/94

Permit No.: 94D0159 * Well No.: 06S1W16M- onreg.

Based on information on the Application and attachment(s) thereto (if any) permission is hereby granted to seal and destroy an existing well. Permission to start may be withheld until a field check verifies all statements made on Application by Permittee, and is also subject to the following conditions:

GENERAL CONDITIONS:

A. SCVWD WELL INSPECTION DEPT. (TELEPHONE 408-927-0710, EXT. 660) MUST BE NOTIFIED A MINIMUM ONE WORKING DAY PRIOR TO STARTING WORK. Destruction authorized under this Permit is subject to any instructions relative to the applicable "Standards for the Destruction of Abandoned Wells" by a District Representative. A District Inspector must be on site to witness the destruction procedure.

B. This Permit is valid only for the purpose specified herein. No change in destruction procedure as prescribed in District's Standards and in Special Conditions below will be allowed except upon written permission of the District or instructions of District Inspector in the field.

C. Permittee shall assume entire responsibility for all activities and uses under this Permit and shall indemnify, defend and save the District, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

D. Compliance with "Cal/OSHA", California Labor Code Section 6300 (and following) is required.

E. Permit will be automatically canceled if not exercised or extension requested by Permittee, within 180 calendar days of above date.

F. Driller is to complete State DWR Form 188 and mail original to S.C.V.W.D. within 30 days of well completion.

G. For the destruction of all type wells, a permittee must be a licensed C-57 Water Well Drilling Contractor.

H. All drilling fluids and materials will be safely handled and properly disposed of in the appropriate method.

I. Permitee shall have a current copy of their Workman's Compensation Insurance on file with the S.C.V.W.D.

SPECIAL CONDITIONS:

** Well is to be drilled out to total depth upon destruction **

SCVWD APPROVED: David C. Bozanich

* District will provide a well number if not now numbered.

Appendix B

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6/29/94 | Permit No.: 94D0128

Permitee: EOA | Well Registration No.: B-10 06S/W16M 35A

Address of Well Site: 3440 PATRICK HENRY

Inspector: M. HELLER | Date Inspected: 6/14/94

Well destroyed according to provisions of the Permit [X] Yes [ ] No (If No, see comments below)

FIELD LOG:

Well Depth: 20' | Casing Diameter: 2"

Well Type: [ ] Cable-Tool [ ] Rotary [ ] Other: _____

Casing Perforated: — up to — | Sealer Material: NEAT CEMENT

Comments: DRILL OUT

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6/29/94 | Permit No.: 94D0131

Permitee: EOA | Well Registration No.: B-13 06S/W16M 38A

Address of Well Site: 3440 PATRICK HENRY

Inspector: M. HELLER | Date Inspected:

Well destroyed according to provisions of the Permit [X] Yes [ ] No (If No, see comments below)

FIELD LOG:

Well Depth: 20' | Casing Diameter: 2"

Well Type: [ ] Cable-Tool [ ] Rotary [ ] Other: _____

Casing Perforated: — up to — | Sealer Material: NEAT CEMENT

Comments: DRILL OUT

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date: 6-27-94	Permit No.: 94D0135
Permitee: Anaconda Inc		Well Registration No.: B-21 06S1W16M13A
Address of Well Site: 5200 Patrick Henry Dr. Santa Clara		
Inspector: J.B. Calhoun	Date Inspected: 6-27-94	

Well destroyed according to provisions of the Permit ☐ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20'	Casing Diameter: 2"
Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger	
Casing Perforated: drilled out up to ____	Sealer Material: Neat Cement

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date: 6-27-94	Permit No.: 94D0136
Permitee: Anaconda Inc		Well Registration No.: B-22 06S1W16M14A
Address of Well Site: 5200 Patrick Henry Dr. Santa Clara		
Inspector: J.B. Calhoun	Date Inspected: 6-27-94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20'	Casing Diameter: 2"
Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger	
Casing Perforated: drilled out up to ____	Sealer Material: Neat Cement

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date: 6-28-94	Permit No.: 94D0163 B
Permittee: Bayland Drilling Inc / EOA Inc		Well Registration No.: 06S1W16M18A
Address of Well Site: 5440 Patrick Henry Dr. Santa Clara		
Inspector: Dave Zozaya	Date Inspected: 6-23-94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 40'	Casing Diameter: 2"
Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger	
Casing Perforated: — up to —	Sealer Material: Neat Cement

Comments: Well was destroyed by using the pressure grouting method.

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date:	Permit No.: 94D0127 B-2
Permittee: Anaconda / EOA / Bayland		Well Registration No.: 06S1W16M38A
Address of Well Site: 5200 Patrick Henry Dr.		
Inspector: Bill Cameron	Date Inspected: 6-17-94	

Well destroyed according to provisions of the Permit ☐ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 22.	Casing Diameter: 2"
Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem	
Casing Perforated: — up to —	Sealer Material: Neat cement

Comments: Drill Out

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date: 6/29/94	Permit No.: 94D0129
Permitee: EOA		Well Registration No.: B-11 06S/1W16M36A
Address of Well Site: 5440 PATRICK HENRY		
Inspector: M. HELLER	Date Inspected: 6/13/94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20'	Casing Diameter: 2"
Well Type: ☐ Cable-Tool ☐ Rotary ☐ Other:	
Casing Perforated: — up to —	Sealer Material: NEAT CEMENT

Comments: DRILL OUT

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date: 6-16-94	Permit No.: 94D0130
Permitee: Anacomp, Inc.		Well Registration No.: B-12 06S/1W16M37A
Address of Well Site: 5440 Patrick Henry Drive		
Inspector: J. B. Calhoun	Date Inspected: 6-16-94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 30	Casing Diameter: 2" PVC
Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger	
Casing Perforated: drilled out up to —	Sealer Material: Cement Slurry

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6-24-94 | Permit No.: 94D0164 R-1

Permittee: Anacomp, Inc. | Well Registration No.: R-1 06S1W16 ~~M40A~~

Address of Well Site: 5200 Patrick Henry Dr.

Inspector: J. B. Calhoun | Date Inspected: 6-24-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 30 | Casing Diameter: 12

Well Type: ☐ Cable-Tool ☒ Rotary ☐ Other: _____

Casing Perforated: Pressure pumping up to — | Sealer Material: 10-sack Sand Slurry

Comments: Pressure Puping throug existing screens

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6-23-94 | Permit No.: 94D0160

Permittee: Anacomp, Inc. | Well Registration No.: R-2 06S1W16M19A

Address of Well Site: 5440 Patrick Henry Drive Santa Clara

Inspector: J. B. Calhoun | Date Inspected: 6-22-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 30' | Casing Diameter: 8"

Well Type: ☐ Cable-Tool ☒ Rotary ☐ Other: _____

Casing Perforated: — up to — | Sealer Material: 10-sack Sand Slurry

Comments: Destroyed by pressure pumping.

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6/29/94 | Permit No.: 94D0161

Permittee: EOA | Well Registration No.: e-3 065W16M01

Address of Well Site: 5440 PATRICK HENRY

Inspector: M. HELLER | Date Inspected: 6/20/94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 40' | Casing Diameter: 8"

Well Type: ☐ Cable-Tool ☐ Rotary ☐ Other: _____

Casing Perforated: — up to — | Sealer Material: 10 SACK SLURRY

Comments: DRILL OUT - GROUNDWATER EXTRACTION (ENVIRONMENTAL)

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: | Permit No.: 94D0162 A

Permittee: Anaconp / EOA / Bayland | Well Registration No.: 065W16M17A

Address of Well Site: 5200 Patrick Henry

Inspector: Bill Cameron | Date Inspected: 6-28-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 40' | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem

Casing Perforated: _____ up to _____ | Sealer Material: Neat Cement

Comments: Drill Out

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6-27-94 | Permit No.: 94D0137

Permitee: Anacomp, Inc | Well Registration No.: B-23 06S1W16M1SA

Address of Well Site: 5200 Patrick Henry Dr

Inspector: J.B. Calhoun | Date Inspected: 6-27-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20' | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger

Casing Perforated: drilled out up to _____ | Sealer Material: Neat Cement

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6-27-94 | Permit No.: 94D0138

Permitee: Anacomp Inc | Well Registration No.: B-24 06S1W16M16A

Address of Well Site: 5200 Patrick Henry Dr.

Inspector: J.B. Calhoun | Date Inspected: 6-27-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20' | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger

Casing Perforated: drilled out up to _____ | Sealer Material: Neat Cement

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date: 6-16-94	Permit No.: 94D0132
Permittee: Anacomp, Inc		Well Registration No.: B-14 06S1W16MB9A
Address of Well Site: 5440 Patrick Henry Drive		
Inspector: J. B. Calhoun	Date Inspected: 6-16-94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 30'	Casing Diameter: 2"
Well Type: ☐ Cable-Tool ☒ Rotary ☐ Other: Hollow Stem Auger	
Casing Perforated: drilled out to _____	Sealer Material: Cement Slurry

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date: 6-27-94	Permit No.: 94D0279
Permittee: Anacomp, Inc		Well Registration No.: B-15 06S1W16M07A
Address of Well Site: 5200 Patrick Henry Dr.		
Inspector: J. B. Calhoun	Date Inspected: 6-22-94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20'	Casing Diameter: 2"
Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger	
Casing Perforated: drilled out to _____	Sealer Material: Neat Cement

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6-24-94 | Permit No.: 94D0134

Permitee: Anaconda Inc | Well Registration No.: B-20

Address of Well Site: 5200 Patrick Henry Dr.

Inspector: J.B. Calhoun | Date Inspected: 6-24-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20 | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☒ Rotary ☒ Other: Hollow Stem Auger

Casing Perforated: drilled out up to _____ | Sealer Material: Cement Slurry

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6-27-94 | Permit No.: 94D0282 B-18

Permitee: Anaconda Inc | Well Registration No.: B-18 06S1W16M10H

Address of Well Site: 5200 Patrick Henry Dr, Santa Clara

Inspector: J.B. Calhoun | Date Inspected: 6-27-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20' | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger

Casing Perforated: drilled out up to _____ | Sealer Material: Neat Cement

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date:	Permit No.: 94 D 0141 B-27
Permittee: Anaconda / EOA / Bayland		Well Registration No.: 06S1W16M31A
Address of Well Site: 5200 Patrick Henry dr.		
Inspector: Bill Cameron	Date Inspected: 6-17-94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20'	Casing Diameter: 2"
Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem	
Casing Perforated: _____ up to _____	Sealer Material: Neat Cement

Comments: Drill Out

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date:	Permit No.: 94 D0142 B-28
Permittee: Anaconda / EOA / Bayland		Well Registration No.: 06S1W16M30A
Address of Well Site: 5200 Patrick Henry dr.		
Inspector: Bill Cameron	Date Inspected: 6-17-94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20'	Casing Diameter: 2"
Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem	
Casing Perforated: _____ up to _____	Sealer Material: Neat Cement

Comments: Drill Out

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6/29/94 | Permit No.: 94D0155

Permitee: EOA | Well Registration No.: B-41 065/1W16M44A

Address of Well Site: 5440 PATRICK [redacted] HENRY

Inspector: MIKE HELLER | Date Inspected: 6/15/94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20 | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☐ Other: _____

Casing Perforated: — up to — | Sealer Material: NEAT CEMENT

Comments: DRILL OUT

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6-24-94 | Permit No.: 94D0158 B-44

Permitee: Anaconda Inc. | Well Registration No.: B-44 065/1W16M45A

Address of Well Site: 5200 Patrick Henry Drive

Inspector: J.B. Calhoun | Date Inspected: 6-24-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 30 | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☒ Rotary ☒ Other: Hollow Stem Auger

Casing Perforated: drilled out up to _____ | Sealer Material: Neat Cement

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date: 6-24-94	Permit No.: 94D0145
Permittee: Anaconp Inc.		Well Registration No.: B-31 06S/W16M02A
Address of Well Site: 5200 Patrich Henry Dr.		
Inspector: J.B. Calhoun	Date Inspected: 6-24-94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20	Casing Diameter: 2"
Well Type: ☐ Cable-Tool ☒ Rotary ☒ Other: Hollow Stem Auger	
Casing Perforated: drilled out up to _____	Sealer Material: Cement Slurry

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date: 6-24-94	Permit No.: 94D0146
Permittee: Anaconp, Inc		Well Registration No.: B-32 06S/W16M01A
Address of Well Site: 5200 Patrich Henry Drive		
Inspector: J.B. Calhoun	Date Inspected: 6-24-94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20'	Casing Diameter: 2"
Well Type: ☐ Cable-Tool ☒ Rotary ☒ Other: Hollow Stem Auger	
Casing Perforated: drilled out up to _____	Sealer Material: Cement Slurry

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6-27-94 | Permit No.: 94D0143

Permitee: Anacomp, Inc. | Well Registration No.: B-29 06S1W16M01A

Address of Well Site: 5200 Patrick Henry Dr. Santa Clara

Inspector: J. B. Calhoun | Date Inspected: 6-27-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20' | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger

Casing Perforated: drilled out up to _____ | Sealer Material: Neat Cement

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6-27-94 | Permit No.: 94D0144

Permitee: Anacomp, Inc | Well Registration No.: B-30 06S1W16M03A

Address of Well Site: 5200 Patrick Henry Dr.

Inspector: J. B. Calhoun | Date Inspected: 6-27-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20' | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger

Casing Perforated: drilled out up to _____ | Sealer Material: Neat Cement

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6-23-94 | Permit No.: 94D0153

Permitee: Anacomp, Inc | Well Registration No.: B-39 06S1W16M ~~41A~~

Address of Well Site: 5440 Patrick Henry Drive Santa Clara

Inspector: J.B. Calhoun | Date Inspected: 6-22-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 41 | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☐ Other: Hollow Stem Auger

Casing Perforated: drilled out up to _____ | Sealer Material: Cement Slurry

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6/29/94 | Permit No.: 94D0154

Permitee: EOA | Well Registration No.: B-40 06S1W16 M43A

Address of Well Site: 5440 PATRICK HENRY

Inspector: M. HELLER | Date Inspected: 6/14/94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20' | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☐ Other: _____

Casing Perforated: — up to — | Sealer Material: NEAT CEMENT

Comments: DRILL OUT

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6/29/94 | Permit No.: 94D0139

Permittee: EOA | Well Registration No.: B-25 06S/1W16M29A

Address of Well Site: 5440 PATRICK HENRY

Inspector: M. HELLER | Date Inspected: 6/14/94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20' | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☐ Other: _____

Casing Perforated: — up to — | Sealer Material: NEAT CEMENT

Comments: DRILL OUT

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6-22-94 | Permit No.: 94D0140 B-26

Permittee: BAYLAND DRILLING / EOA INC. | Well Registration No.: 06S1W16M28A

Address of Well Site: 5440 PATRICK HENRY DR., SANTA CLARA

Inspector: DAVE EZZAYA | Date Inspected: 6-13-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20' | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger

Casing Perforated: — up to — | Sealer Material: NEAT CEMENT

Comments: WELL WAS DRILLED OUT TO TOTAL DEPTH & SEALED

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6/29/94 | Permit No.: 94D0151

Permitee: EOA | Well Registration No.: B-37 06S/W16 M06A ~~A4~~

Address of Well Site: 5200 PATRICK HENRY

Inspector: M. HELLER | Date Inspected: 6/21/94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 30' | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☐ Other: _____

Casing Perforated: — up to — | Sealer Material: NEAT CEMENT

Comments: DRILL OUT

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6-23-94 | Permit No.: 94D0152

Permitee: Ana Comp Inc. | Well Registration No.: B-38 06S/W16M 42A ~~42H~~

Address of Well Site: 5440 Patrick Henry Drive Santa Clara

Inspector: J. B. Calhoun | Date Inspected: 6-22-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 43' | Casing Diameter: 2" ~~4"~~

Well Type: ☐ Cable-Tool ☐ Rotary ☐ Other: Hollow Stem Auger

Casing Perforated: drilled out up to _____ | Sealer Material: Cement Slurry

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: 6/29/94 | Permit No.: 94D0149

Permittee: EOA | Well Registration No.: B-35 065/W16M33A

Address of Well Site: 3440 PATRICK HENRY

Inspector: M. HELLER | Date Inspected: 6/21/94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 30' | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☐ Other: _____

Casing Perforated: — up to — | Sealer Material: NEAT CEMENT

Comments: DRILL OUT

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION | Date: | Permit No.: 94D0150 B-36

Permittee: Anacomp / EOA / Bayland | Well Registration No.: 065/w16m04A

Address of Well Site: 5200 Patrick Henry dr.

Inspector: Bill Cameron | Date Inspected: 6-28-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 30' | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem

Casing Perforated: _____ up to _____ | Sealer Material: Neat Cement

Comments: Drill Out

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date: 6-24-94	Permit No.: 94D0280
Permitee: Anacomp Inc		Well Registration No.: B-16 06S1W16M08A
Address of Well Site: 5200 Patrich Henry Dr.		
Inspector: J. B. Calhoun	Date Inspected: 6-23-94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 20 | Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger

Casing Perforated: drilled out up to _____ | Sealer Material: Cement Slurry

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date: 6-24-94	Permit No.: 94D0281
Permitee: Anacomp, Inc.		Well Registration No.: B-17 06S1W16M09A
Address of Well Site: 5200 Patrich Henry Dr.		
Inspector: J. B. Calhoun	Date Inspected: 6-23-94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below) 42A

FIELD LOG:

Well Depth: 20 | Casing Diameter: 2

Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger

Casing Perforated: drilled out up to _____ | Sealer Material: Cement Slurry

Comments:

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION

Date: 6/29/94

Permit No.: 94D0147

Permitee: EOA

Well Registration No.: B-33 06S1W16M32A ~~[illegible]~~

Address of Well Site: 5440 PATRICK HENRY

Inspector: M. HELLER

Date Inspected: 6/21/94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 31'

Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☐ Other: _____

Casing Perforated: — up to —

Sealer Material: NEAT CEMENT

Comments: DRILL OUT

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION

Date:

Permit No.: 94D0148 B-34

Permitee: Anacomp / EOA / Bayland

Well Registration No.: 06S1W16M05A

Address of Well Site: 5200 Patrick Henry Dr.

Inspector: Bill Cameron

Date Inspected: 6-28-94

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 30'

Casing Diameter: 2"

Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow stem

Casing Perforated: _____ up to _____

Sealer Material: Neat Cement

Comments: Drill Out

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Santa Clara Valley Water District

WELL DESTRUCTION COMPLETION NOTICE

FC 218 (07-25-89)

From: WELL SECTION	Date: 6-22-94	Permit No.: 94D0159 B-49
Permitee: BAYLAND DRILLING/EOA INC.		Well Registration No.: 06S1W16M-Unreg.
Address of Well Site: 5440 PATRICK HENRY DR., SANTA CLARA		
Inspector: DAVE ZOZAYA	Date Inspected: 6-13-94	

Well destroyed according to provisions of the Permit ☒ Yes ☐ No (If No, see comments below)

FIELD LOG:

Well Depth: 30'	Casing Diameter: 2"
Well Type: ☐ Cable-Tool ☐ Rotary ☒ Other: Hollow Stem Auger	
Casing Perforated: — up to —	Sealer Material: NEAT CEMENT

Comments: WELL WAS DRILLED OUT TO TOTAL DEPTH & SEALED

Distribution: White - Well Section Yellow - Permittee Pink - Water Revenue Div.

Appendix C

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

EOA, Inc.
1410 Jackson Street
Oakland, CA 94612

Date: 06-JUL-94
Lab Job Number: 116101
Project ID: AN04
Location: Patrick Henry

Reviewed by: Mary Plessas

Reviewed by:

This package may be reproduced only in its entirety.

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116101-5
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY
SAMPLE ID: COMPOSITE A(1,2,3,4)

DATE SAMPLED: 06/24/94
DATE RECEIVED: 06/24/94
DATE ANALYZED: 06/27/94
DATE REPORTED: 07/06/94

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result (ug/Kg)	Reporting Limit (ug/Kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	30	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	180	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5
Cyclohexanone	ND	100
Isopropyl alcohol	ND	100

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	110 %
Toluene-d8	106 %
Bromofluorobenzene	95 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116101-10
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY
SAMPLE ID: COMPOSITE B(1,2,3,4)

DATE SAMPLED: 06/24/94
DATE RECEIVED: 06/24/94
DATE ANALYZED: 06/27/94
DATE REPORTED: 07/06/94

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result (ug/Kg)	Reporting Limit (ug/Kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5
Cyclohexanone	ND	100
Isopropyl alcohol	ND	100

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	108 %
Toluene-d8	110 %
Bromofluorobenzene	90 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116101
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY

DATE SAMPLED: 06/24/94
DATE RECEIVED: 06/24/94
DATE EXTRACTED: 06/29/94
DATE ANALYZED: 06/30/94
DATE REPORTED: 07/06/94

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT* (mg/Kg)
116101-5	COMPOSITE A(1,2,3,4)	ND	30	10
116101-10	COMPOSITE B(1,2,3,4)	ND	2	1
116101-METHOD BLANK		ND	ND	1

ND = Not detected at or above reporting limit.

* Reporting limit applies to all analytes.

QA/QC SUMMARY

RPD,%	11
RECOVERY, %	96

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116101-METHOD BLANK
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY

DATE ANALYZED: 06/27/94
DATE REPORTED: 07/06/94

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result (ug/Kg)	Reporting Limit (ug/Kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5
Cyclohexanone	ND	100
Isopropyl alcohol	ND	100

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	105 %
Toluene-d8	104 %
Bromofluorobenzene	101 %

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number:	116101		
Client:	EOA, Inc.	Spike file:	afr09
Analysis date:	06/27/94	Spike dup file:	afr10
Sample type:	Soil		
Sample spiked:	116101-010		

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	51.38	103 %	OK	59 - 172
Trichloroethene	40.04	80 %	OK	62 - 137
Benzene	47.47	94 %	OK	66 - 142
Toluene	48.34	96 %	OK	59 - 139
Chlorobenzene	44.53	89 %	OK	60 - 133
SURROGATES				
1,2-Dichloroethane-d4	52.31	105 %	OK	70 - 121
Toluene-d8	53.94	108 %	OK	84 - 138
Bromofluorobenzene	47.54	95 %	OK	59 - 113

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	56.14	112 %	OK	59 - 172
Trichloroethene	46.10	92 %	OK	62 - 137
Benzene	54.05	107 %	OK	66 - 142
Toluene	57.27	114 %	OK	59 - 139
Chlorobenzene	51.07	102 %	OK	60 - 133
SURROGATES				
1,2-Dichloroethane-d4	51.09	102 %	OK	70 - 121
Toluene-d8	56.41	113 %	OK	84 - 138
Bromofluorobenzene	43.18	86 %	OK	59 - 113

MATRIX RESULTS	
1,1-Dichloroethene	0
Trichloroethene	0
Benzene	0.302
Toluene	0.239
Chlorobenzene	0

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	51.38	56.14	9 %	OK	< 22
Trichloroethene	40.04	46.10	14 %	OK	< 24
Benzene	47.47	54.05	13 %	OK	< 21
Toluene	48.34	57.27	17 %	OK	< 21
Chlorobenzene	44.53	51.07	14 %	OK	< 21

CHAIN OF CUSTODY FORM

Page 1 of 1

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

Sampler: JK

Report to: Jon Konnan

Project No: AN04

Company: EOA, Inc

Project Name: Patrick Henry

Telephone: 510/832-2852

Turnaround Time: Stnd

Fax:

Analyses

Laboratory Number	Sample ID. -1 -2 -3 -4	Sampling Date Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservative: HCL	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: ICE	Field Notes	EPA 8240 + Cyclohexanone Isopropanol	Diesel
	A-1,2,3 & 4	6-24-94 1PM	X			4					Composite	X	X
	B-1,2,3 & 4 -6 -7 -8 -9	" 1:15PM	X			4					"	X	X
	-5 comp A(1-4)												
	-10 comp B(1-4)												

NOTES:

2 analyses:

A - composite of 4 samples

B - " " " "

Bill to EOA, Inc. Thankyou

RELINQUISHED BY:

Jonathan Konnan EOA, Inc. 1:49 PM 6-24-94 DATE/TIME

DATE/TIME

DATE/TIME

RECEIVED BY:

Troy E. Winter 6-24-94 1349 DATE/TIME

DATE/TIME

DATE/TIME

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

EOA, Inc.
1410 Jackson Street
Oakland, CA 94612

Date: 12-JUL-94
Lab Job Number: 116166
Project ID: AN04
Location: Patrick Henry

Reviewed by: _____

Reviewed by: _____

This package may be reproduced only in its entirety.

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116166-5
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY
SAMPLE ID: COMPOSITE C-1,2,3,4

DATE SAMPLED: 06/28/94
DATE RECEIVED: 06/30/94
DATE ANALYZED: 07/08/94
DATE REPORTED: 07/11/94

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result (ug/Kg)	Reporting Limit (ug/Kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	40	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	10	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5
Cyclohexanone	ND	100
Isopropyl alcohol	ND	100

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	97 %
Toluene-d8	106 %
Bromofluorobenzene	87 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116166-METHOD BLANK
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY

DATE ANALYZED: 07/08/94
DATE REPORTED: 07/11/94

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result (ug/Kg)	Reporting Limit (ug/Kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5
Cyclohexanone	ND	100
Isopropyl alcohol	ND	100

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	107 %
Toluene-d8	97 %
Bromofluorobenzene	95 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116166
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY

DATE SAMPLED: 06/28/94
DATE RECEIVED: 06/30/94
DATE EXTRACTED: 07/08/94
DATE ANALYZED: 07/09/94
DATE REPORTED: 07/12/94

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT* (mg/Kg)
116166-5	COMPOSITE C-1,2,3,4	ND	4	1
METHOD BLANK	N/A	ND	ND	1

ND = Not detected at or above reporting limit.

* Reporting limit applies to all analytes.

QA/QC SUMMARY

RPD,%	6
RECOVERY, %	118

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number: 116166
Client: EOA, Inc.
Analysis date: 07/08/94
Sample type: Soil
Sample spiked: 116166-005

Spike file: bg813
Spike dup file: bg814

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	82.89	166 %	OK	59 - 172
Trichloroethene	40.05	80 %	OK	62 - 137
Benzene	55.56	111 %	OK	66 - 142
Toluene	57.38	115 %	OK	59 - 139
Chlorobenzene	51.40	103 %	OK	60 - 133
SURROGATES				
1,2-Dichloroethane-d4	50.12	100 %	OK	70 - 121
Toluene-d8	49.60	99 %	OK	84 - 138
Bromofluorobenzene	41.92	84 %	OK	59 - 113

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	94.17	188 %	NOT OK	59 - 172
Trichloroethene	43.21	86 %	OK	62 - 137
Benzene	53.11	106 %	OK	66 - 142
Toluene	59.10	118 %	OK	59 - 139
Chlorobenzene	54.31	109 %	OK	60 - 133
SURROGATES				
1,2-Dichloroethane-d4	50.22	100 %	OK	70 - 121
Toluene-d8	51.62	103 %	OK	84 - 138
Bromofluorobenzene	45.35	91 %	OK	59 - 113

MATRIX RESULTS	
1,1-Dichloroethene	0
Trichloroethene	0
Benzene	0
Toluene	0
Chlorobenzene	0

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	82.89	94.17	13 %	OK	< 22
Trichloroethene	40.05	43.21	8 %	OK	< 24
Benzene	55.56	53.11	5 %	OK	< 21
Toluene	57.38	59.10	3 %	OK	< 21
Chlorobenzene	51.40	54.31	6 %	OK	< 21

Curtis & Tompkins, Ltd.

LCS SUMMARY SHEET FOR EPA 8240

Laboratory Number: 116166
Client: EOA, Inc.
Analysis date: 07/08/94 LCS file: bg803
Sample type: Soil

LCS DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	54.66	109 %	OK	59 - 172
Trichloroethene	37.69	75 %	OK	62 - 137
Benzene	48.24	96 %	OK	66 - 142
Toluene	49.00	98 %	OK	59 - 139
Chlorobenzene	46.53	93 %	OK	60 - 133
SURROGATES				
1,2-Dichloroethane-d4	50.36	101 %	OK	70 - 121
Toluene-d8	50.18	100 %	OK	81 - 117
Bromofluorobenzene	46.33	93 %	OK	74 - 121

11/6/66

CHAIN OF CUSTODY FORM

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

Sampler: JK

Report to: Jon Konnan

Project No: AN04

Company: EOA

Project Name: Patrick Henry

Telephone:

Turnaround Time: Stud

Fax:

Analyses

Laboratory Number	Sample ID. -2-3-4	Sampling Date	Sampling Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservative: HCL	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: ICE	Field Notes	EPA 8240 + IPA cyclohexanone	Diesel
	C-1,2,3,4	6-28-94	3PM	X								Composite	X	X
	-5 Comp													

NOTES:

- Bill to EOA
- 1 analysis (composite of 4 samples)

Thankyou

RELINQUISHED BY:	RECEIVED BY:
Janet D. Konnan EOA 6-30-94 11:30 AM DATE/TIME	Troy E. Wimbler 6-30-94 1130 DATE/TIME
DATE/TIME	DATE/TIME
DATE/TIME	DATE/TIME

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

EOA, Inc.
1410 Jackson Street
Oakland, CA 94612

Date: 06-JUL-94
Lab Job Number: 116138
Project ID: AN04
Location: Patrick Henry

Reviewed by: Mary Pleasant

Reviewed by:

This package may be reproduced only in its entirety.

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116138
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY

DATE SAMPLED: 06/28/94
DATE RECEIVED: 06/28/94
DATE EXTRACTED: 06/30/94
DATE ANALYZED: 07/01/94
DATE REPORTED: 07/07/94

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT (ug/L)
116138-1	WT-1	ND	ND	50
116138-METHOD BLANK		200	ND	50

ND = Not detected at or above reporting limit. Reporting limit applies to all analytes.

QA/QC SUMMARY:

LCS RECOVERY, %	98

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116138-1
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY
SAMPLE ID: WT-1

DATE SAMPLED: 06/28/94
DATE RECEIVED: 06/28/94
DATE ANALYZED: 07/01/94
DATE REPORTED: 07/07/94

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5
Cyclohexanone	ND	100
Isopropyl alcohol	ND	100

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	102 %
Toluene-d8	90 %
Bromofluorobenzene	106 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 116138-METHOD BLANK
CLIENT: EOA, INC.
PROJECT ID: AN04
LOCATION: PATRICK HENRY

DATE ANALYZED: 07/01/94
DATE REPORTED: 07/07/94

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
trans-1,2-Dichloroethene	ND	5
cis-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	50
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5
Cyclohexanone	ND	100
Isopropyl alcohol	ND	100

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	100 %
Toluene-d8	88 %
Bromofluorobenzene	104 %

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number: 116138
Client: EOA, Inc.
Analysis date: 06/30/94
Sample type: Water
Sample spiked: 116130-002

Spike file: bfu15
Spike dup file: bfu16

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	50.58	94 %	OK	61 - 145
Trichloroethene	38.88	72 %	OK	71 - 120
Benzene	46.83	87 %	OK	76 - 127
Toluene	46.95	88 %	OK	76 - 125
Chlorobenzene	48.21	90 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	50.29	101 %	OK	76 - 114
Toluene-d8	47.75	96 %	OK	88 - 110
Bromofluorobenzene	49.86	100 %	OK	86 - 115

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	51.40	95 %	OK	61 - 145
Trichloroethene	39.31	73 %	OK	71 - 120
Benzene	46.99	87 %	OK	76 - 127
Toluene	44.62	83 %	OK	76 - 125
Chlorobenzene	47.17	88 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	48.45	97 %	OK	76 - 114
Toluene-d8	45.35	91 %	OK	88 - 110
Bromofluorobenzene	49.53	99 %	OK	86 - 115

MATRIX RESULTS	
1,1-Dichloroethene	3.7
Trichloroethene	2.91
Benzene	3.47
Toluene	3.16
Chlorobenzene	3.31

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	50.58	51.40	2 %	OK	< 14
Trichloroethene	38.88	39.31	1 %	OK	< 14
Benzene	46.83	46.99	0 %	OK	< 11
Toluene	46.95	44.62	5 %	OK	< 13
Chlorobenzene	48.21	47.17	2 %	OK	< 13

CHAIN OF CUSTODY FORM

Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

Sampler: JK

Report to: Jon Kouman

Project No: AN04

Company: EOA

Project Name: Patrick Henry

Telephone: 510/832 2852

Turnaround Time: 1 week

Fax:

Laboratory Number	Sample ID.	Sampling Date	Sampling Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservative: HCl	Preservative: H_2SO_4	Preservative: HNO3	Preservative: ICE	Preservative: 1-Amber	Field Notes	Analyses: EPA 8240 + Cyclohexanone Isopropanol	Analyses: EPA Diesel
	WT-1	6-28-94	2PM		X		(W)5	4				1		X	X

NOTES:

RELINQUISHED BY:

Janet di Kou EOA 6-28-94 2:20PM DATE/TIME

DATE/TIME

DATE/TIME

RECEIVED BY:

Ingy E. Winter 6-28-94 1420 DATE/TIME

DATE/TIME

DATE/TIME

Appendix D

State of California—Environmental Protection Agency
Form Approved OMB No. 2050–0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. / Manifest Document No.: C A D 0 6 3 5 4 1 1 4 4 5 9 4 0 8 2
2. Page 1 of 1
Information in the shaded areas is not required by Law.

3. Generator's Name and Mailing Address
ANACOMP, INC. ; 22351 CITY CENTER DR.; STE 203
HAYWARD, CA 94541

4. Generator's Phone (510 889-6835

5. Transporter 1 Company Name: ALL WASTE REMEDIATION TRANSPORTATION
6. US EPA ID Number: C A D 0 6 8 5 4 7 9 9 6

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
KETTLEMAN HILLS
35251 OLD SKYLINE RD
KETTLEMAN CITY, CA 93239
10. US EPA ID Number: C A T 0 0 0 6 4 6 1 1 7

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. HAZARDOUS WASTE, SOLID, N.O.S., 9, NA 3077, III, 9 (CONTAINS TRACE SOLVENTS AND DIESEL)	0 0 2	C M	0 0 1 4	Y
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
ERG # 31 ; PROFILE # BMI 3405

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Chloe Jue	Chloe Jue	0 8	0 2	9 4

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Sigle L. Williams	Sigle L. Williams	0 8	0 2	9 4

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

Blue: GENERATOR SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 400, Sacramento, CA 95812-0400

DTSC 8022A (7/92)
EPA 8700-22

IF EMERGENCY SPILL CALL NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550

ABBOTT

Diagnostics Division

Abbott Laboratories
5440 Patrick Henry Drive
Santa Clara, California 95054

November 15, 1993

Mr. Stephen L Morse
Chief, South Bay Toxics Division
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94621

SUBJECT: Tentative Order Rescinding Waste Discharge Requirements (Order 85-131)
For Anacomp Site, 5200 and 5440 Patrick Henry Drive, Santa Clara

REFERENCE: Your Letter Dated 9/30/93 Extending Comment Period

Dear Mr. Morse;

Sequoia-Turner, a wholly owned subsidiary of Abbott Laboratories, based in Lake County Illinois, purchased the Anacomp site located at 5440 Patrick Henry Drive, Santa Clara in 1992. As the current operator of the site, and in the interest of facilitating Anacomp's contractual obligations to Abbott concerning this issue, Abbott respectfully requests the Board's consideration and inclusion of the following comments in the final order rescinding Order 85-131.

1) The Tentative Order Rescinding Waste Discharge Requirements (Order 85-131) for the Anacomp Site, 5200 and 5440 Patrick Henry Drive, Santa Clara, describes a baseline public health evaluation (BPHE) and risk assessment prepared by the discharger. The future-use scenario involving "the exposure of construction workers to contaminated soil and/or groundwater, via dermal contact, inhalation, and or ingestion routes," is a realistic scenario for Abbott Laboratories. Testing commissioned by Dysan, Xidex, and Anacomp during the site investigation, subsequent monitoring program and for site closure activities with the Santa Clara Fire Department has shown soil contamination. However, soil remediation was not performed. Further, while the BPHE addresses exposures for Chemicals of Concern (COC's) due to dermal contact and ingestion pathways, the inhalation pathway was not accounted for. The more recent soils investigations performed for Anacomp detected concentrations of Volatile Organic Compounds (VOC's) higher than concentrations used in the original risk assessment. For example, concentrations of methyl ethyl ketone (MEK) were up to four orders of magnitude greater than those used in the original risk assessment. Based on the above information it may be appropriate to review the conclusions of the BPHE and risk assessment with respect to the more recent CERCLA guidance. If the Board concludes that the risk associated with residual soil contamination is acceptable, Abbott does not object to rescinding the waste discharge requirements.

2) Abbott requests that the Board require the discharger (Anacomp) to properly abandon all monitoring wells, dismantle and remove all remediation equipment and piping at 5440 Patrick Henry Drive within 120 days as a condition of rescinding the waste discharge requirements (Order 85-131). Because Abbott has no intention of maintaining the monitoring wells, they will be subject to deterioration and could provide a conduit for contaminants to enter groundwater.

2189.8118

3) Should future actions be required concerning the contaminants of concern identified in Order 85-131 the Board shall pursue such actions with Anacomp after consultation with Abbott.

Abbott appreciates the granting of the sixty day extension for review of the Tentative Order Rescinding Waste Discharge Requirements. Should you have any questions concerning these comments please contact David W. Stevens, our site Safety, Health and Environmental Coordinator at (408) 982-4800 Ext. 3316.

Sincerely,

Chris Monahan

Chris Monahan,
Vice President and
General Manager

DWS/dws
cc: C. van der Woerd, Anacomp

Fax:

anacomp®

Mr. Hayte Kifle
Water Resources Control Engineer
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

November 16, 1993

Dear Mr. Kifle:

I am submitting the following comments to the Tentative Order Rescinding Waste Discharge Requirements, Order No. 85-131 for purposes of clarification and accuracy. I have highlighted changes in bold type for ease of review.

1. Item Number 2. should read as follows: History and Regulatory Status Dysan Corporation occupied and operated at the facilities manufacturing computer hard disks and floppy disks from 1979 to 1985. Xidex Corporation acquired Dysan in 1985. Anacomp, Inc. acquired Xidex in 1988 and continued producing the same products until 1991. Hereafter, Anacomp and its predecessors are referred to as the discharger. In 1992, Abbot Laboratories purchased building 5440. The Discharger leased building 5200 but has never owned it. William Batton owns this parcel. However, the discharger still remains liable for cleanup of the site.

2. Item Number 4. should read as follows: Subsurface investigation was initiated at the site in July, 1982. High levels of various industrial solvents such as methyl ethyl ketone (MEK), and its breakdown product acetone, and isopropyl alcohol (IPA) and cyclohexanone, were detected in soil and shallow groundwater in the vicinity of the three underground tank farms adjacent to the 5200 and 5440 facilities.

3. Item Number 11. should read as follows: To delineate the extent of the pollution in soil, the discharger conducted additional soil investigation in 1984 and 1985 where about 35 additional soil borings were collected and analyzed for the presence of solvents and TPH-diesel. The 1985 soil samples measured approximately 720 and 580 ppm of total solvents, predominantly MEK, at depths of 10 to 20 feet below ground surface at the 5200 and 5440 facilities, respectively. Additional soil samples were collected in 1991 at the 5440 facility and analyzed for solvents. The 1991 samples measured a maximum concentration of approximately 736 ppm of total solvents, predominantly MEK, at a depth of approximately 10 feet.

2189.8118

Anacomp appreciates the opportunity to comment on the Tentative Order. If you have any questions regarding the site, please call me at (510) 889-0324.

Sincerely,

Chris van der Woerd

Chris van der Woerd
Manager of Safety and Environmental Affairs
Anacomp, Inc.

cc: Eric Whinston, Anacomp, Inc.

ABBOTT

Diagnostics Division

Abbott Laboratories
5440 Patrick Henry Drive
Santa Clara, California 95054

November 15, 1993

Mr. Stephen L Morse
Chief, South Bay Toxics Division
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94621

SUBJECT: Tentative Order Rescinding Waste Discharge Requirements (Order 85-131)
For Anacomp Site, 5200 and 5440 Patrick Henry Drive, Santa Clara

REFERENCE: Your Letter Dated 9/30/93 Extending Comment Period

Dear Mr. Morse;

Sequoia-Turner, a wholly owned subsidiary of Abbott Laboratories, based in Lake County Illinois, purchased the Anacomp site located at 5440 Patrick Henry Drive, Santa Clara in 1992. As the current operator of the site, and in the interest of facilitating Anacomp's contractual obligations to Abbott concerning this issue, Abbott respectfully requests the Board's consideration and inclusion of the following comments in the final order rescinding Order 85-131.

1) The Tentative Order Rescinding Waste Discharge Requirements (Order 85-131) for the Anacomp Site, 5200 and 5440 Patrick Henry Drive, Santa Clara, describes a baseline public health evaluation (BPHE) and risk assessment prepared by the discharger. The future-use scenario involving "the exposure of construction workers to contaminated soil and/or groundwater, via dermal contact, inhalation, and or ingestion routes," is a realistic scenario for Abbott Laboratories. Testing commissioned by Dysan, Xidex, and Anacomp during the site investigation, subsequent monitoring program and for site closure activities with the Santa Clara Fire Department has shown soil contamination. However, soil remediation was not performed. Further, while the BPHE addresses exposures for Chemicals of Concern (COC's) due to dermal contact and ingestion pathways, the inhalation pathway was not accounted for. The more recent soils investigations performed for Anacomp detected concentrations of Volatile Organic Compounds (VOC's) higher than concentrations used in the original risk assessment. For example, concentrations of methyl ethyl ketone (MEK) were up to four orders of magnitude greater than those used in the original risk assessment. Based on the above information it may be appropriate to review the conclusions of the BPHE and risk assessment with respect to the more recent CERCLA guidance. If the Board concludes that the risk associated with residual soil contamination is acceptable, Abbott does not object to rescinding the waste discharge requirements.

2) Abbott requests that the Board require the discharger (Anacomp) to properly abandon all monitoring wells, dismantle and remove all remediation equipment and piping at 5440 Patrick Henry Drive within 120 days as a condition of rescinding the waste discharge requirements (Order 85-131). Because Abbott has no intention of maintaining the monitoring wells, they will be subject to deterioration and could provide a conduit for contaminants to enter groundwater.

2189.8118

3) Should future actions be required concerning the contaminants of concern identified in Order 85-131 the Board shall pursue such actions with Anacomp after consultation with Abbott.

Abbott appreciates the granting of the sixty day extension for review of the Tentative Order Rescinding Waste Discharge Requirements. Should you have any questions concerning these comments please contact David W. Stevens, our site Safety, Health and Environmental Coordinator at (408) 982-4800 Ext. 3316.

Sincerely,

Chris Monahan

Chris Monahan,
Vice President and
General Manager

DWS/dws
cc: C. van der Woerd, Anacomp

Fax:

anacomp®

Mr. Hayte Kifle
Water Resources Control Engineer
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

November 16, 1993

Dear Mr. Kifle:

I am submitting the following comments to the Tentative Order Rescinding Waste Discharge Requirements, Order No. 85-131 for purposes of clarification and accuracy. I have highlighted changes in bold type for ease of review.

1. Item Number 2. should read as follows: History and Regulatory Status Dysan Corporation occupied and operated at the facilities manufacturing computer hard disks and floppy disks from 1979 to 1985. Xidex Corporation acquired Dysan in 1985. Anacomp, Inc. acquired Xidex in 1988 and continued producing the same products until 1991. Hereafter, Anacomp and its predecessors are referred to as the discharger. In 1992, Abbot Laboratories purchased building 5440. The Discharger leased building 5200 but has never owned it. William Batton owns this parcel. However, the discharger still remains liable for cleanup of the site.

2. Item Number 4. should read as follows: Subsurface investigation was initiated at the site in July, 1982. High levels of various industrial solvents such as methyl ethyl ketone (MEK), and its breakdown product acetone, and isopropyl alcohol (IPA) and cyclohexanone, were detected in soil and shallow groundwater in the vicinity of the three underground tank farms adjacent to the 5200 and 5440 facilities.

3. Item Number 11. should read as follows: To delineate the extent of the pollution in soil, the discharger conducted additional soil investigation in 1984 and 1985 where about 35 additional soil borings were collected and analyzed for the presence of solvents and TPH-diesel. The 1985 soil samples measured approximately 720 and 580 ppm of total solvents, predominantly MEK, at depths of 10 to 20 feet below ground surface at the 5200 and 5440 facilities, respectively. Additional soil samples were collected in 1991 at the 5440 facility and analyzed for solvents. The 1991 samples measured a maximum concentration of approximately 736 ppm of total solvents, predominantly MEK, at a depth of approximately 10 feet.

2189.8118

Anacomp appreciates the opportunity to comment on the Tentative Order. If you have any questions regarding the site, please call me at (510) 889-0324.

Sincerely,

Chris van der Woerd

Chris van der Woerd
Manager of Safety and Environmental Affairs
Anacomp, Inc.

cc: Eric Whinston, Anacomp, Inc.

ICF KAISER
ENVIRONMENT & ENERGY GROUP

ICF Kaiser Engineers, Inc.
11808 Northup Way, Suite 104
Bellevue, WA 98005-1922
206/828-7950 Fax 206-889-1010

December 15, 1993

CALIFORNIA REGIONAL WATER
DEC 23 1993
QUALITY CONTROL BOARD

Mr. Hapte Kifle
California Regional Water Quality Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Dear Hapte:

Thank you for taking the time to talk with Jim Shellooe and me regarding the risk assessment for the Anacomp site in Santa Clara, California. I would like to reiterate that we plan to update the risk assessment completed in 1989 with a letter report that incorporates the 1991 soil sampling data.

In this letter report, we will respond to all of the main points Abbott Laboratories identified in their letter dated November 15, 1993. We will address these comments:

- Soil remediation was not conducted although chemicals of concern were identified.
- The inhalation exposure pathway was not quantitatively evaluated in the 1989 risk assessment.
- The results of the 1991 soil sampling may affect the risk assessment for this site.

Our calculations show that the maximum soil concentrations of the chemicals of concern measured in 1991 do not pose unacceptable risks. For example, the maximum concentration of MEK measured (700,000 ppb) yields a hazard quotient of less than 1.0 under a residential exposure scenario.

We will provide the calculations and describe our conservative assumptions in the letter report. As indicated in our telephone conversation, we plan to use current guidance documents from EPA, including *Risk Assessment Guidance for Superfund: Human Health Evaluation Manual Part A,* and *Part B, Development of Risk-based Preliminary Remediation Goals*. We believe that this approach will satisfy the wishes of Abbott Laboratories and the requirements of the Regional Water Quality Board. The letter report will be ready for submission prior to the December 31, 1993 deadline.

Thanks again for your time.

Best regards,

Scott D. Dwyer, Ph.D.
Senior Scientist

SDD:csr

cc: Jim Shellooe, ICF Kaiser
Chris van der Woerd, Anacomp

ANACOMP\0517400900\RAUPDATE.LTR

2189-8118

STATE OF CALIFORNIA
PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
OAKLAND, CA 94612
(510) 286-1255

November 29, 1993
File No. 2189.8118(HK)

Chris van der Woerd
Manager of Safety and Environmental Affairs
Anacomp, Inc.
22351 City Center Drive, Suite 203
Hayward, CA 94541

Subject: Former Anacomp Site, 5440 Patrick Henry Drive, Santa Clara

Dear Mr. Woerd:

We have received your comments on the Tentative Order Rescinding Waste Discharge Requirements Order No. 85-131 for the subject site on November 17, 1993. In this letter, you stated that there were additional soil samples collected in 1991 at the 5440 facility. These soil samples were analyzed for solvents and measured up to 736 ppm concentration of total solvents, predominantly methyl ethyl ketone. Although the presence of such concentration does not seem to impact the quality of shallow groundwater underneath the site, Anacomp still needs to update its risk assessment using the more recent soil data.

I request Anacomp to submit a supplemental risk assessment and, if necessary, a workplan for remediation of the contaminated soil by December 31, 1993.

Please be aware that this is a formal request for technical report pursuant to California Water Code Section 13267. Any extensions of the time deadline set forth above must be confirmed in writing by Board staff.

If you have any questions, please contact Habte Kifle of my staff at (510) 286-0467.

Sincerely,

Steven R. Ritchie
Executive Officer

Steve I. Morse, Chief
South Bay Toxics Division

cc: David Stevens, Abbott Lab.
Lee Esquibel, SCCDEH
Tom Iwamura, SCVWD
David parker, City of Santa Clara

STATE OF CALIFORNIA
PETE WILSON, *Governor*

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
OAKLAND, CA 94612
(510) 286-1255

November 18, 1993
File No. 2189.8118(SAH)

Mr. Chris van der Woerd
Manager of Environmental Affairs
Anacomp, Inc.
22351 City Center Drive
Hayward, CA 94541

RE: SLIC Cleanup Program for Oversight Costs at 5200/5440 Patrick Henry Drive, Santa Clara, Santa Clara County

Dear Mr. van der Woerd:

This letter is to notify you that we have revised our estimate of the labor hours needed to oversee Anacomp's remediation activities for fiscal year 1993-94 ending June 30, 1994. Our original estimate was 90 hours; our revised estimate is 150 hours. The increase reflects additional staff time needed to review supplementary risk assessment information and to oversee any additional cleanup activities that may result. This is merely an estimate; the actual time needed will depend on the nature and extent of the necessary cleanup oversight.

Please call me at (510 286-0433 if you have any questions.

Sincerely,

Stephen Hill
Section Leader

cc: Greg Walker, RWQCB

ABBOTT

Diagnostics Division

Abbott Laboratories
5440 Patrick Henry Drive
Santa Clara, California 95054

November 15, 1993

CALIFORNIA REGIONAL WATER
NOV 17 1993
QUALITY CONTROL BOARD

Mr. Stephen I. Morse
Chief, South Bay Toxics Division
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94621

SUBJECT: Tentative Order Rescinding Waste Discharge Requirements (Order 85-131)
For Anacomp Site, 5200 and 5440 Patrick Henry Drive, Santa Clara

REFERENCE: Your Letter Dated 9/30/93 Extending Comment Period

Dear Mr. Morse:

Sequoia-Turner, a wholly owned subsidiary of Abbott Laboratories, based in Lake County Illinois, purchased the Anacomp site located at 5440 Patrick Henry Drive, Santa Clara in 1992. As the current operator of the site, and in the interest of facilitating Anacomp's contractual obligations to Abbott concerning this issue, Abbott respectfully requests the Board's consideration and inclusion of the following comments in the final order rescinding Order 85-131.

1) The Tentative Order Rescinding Waste Discharge Requirements (Order 85-131) for the Anacomp Site, 5200 and 5440 Patrick Henry Drive, Santa Clara, describes a baseline public health evaluation (BPHE) and risk assessment prepared by the discharger. The future-use scenario involving "the exposure of construction workers to contaminated soil and/or groundwater, via dermal contact, inhalation, and or ingestion routes," is a realistic scenario for Abbott Laboratories. Testing commissioned by Dysan, Xidex, and Anacomp during the site investigation, subsequent monitoring program and for site closure activities with the Santa Clara Fire Department has shown soil contamination. However, soil remediation was not performed. Further, while the BPHE addresses exposures for Chemicals of Concern (COC's) due to dermal contact and ingestion pathways, the inhalation pathway was not accounted for. The more recent soils investigations performed for Anacomp detected concentrations of Volatile Organic Compounds (VOC's) higher than concentrations used in the original risk assessment. For example, concentrations of methyl ethyl ketone (MEK) were up to four orders of magnitude greater than those used in the original risk assessment. Based on the above information it may be appropriate to review the conclusions of the BPHE and risk assessment with respect to the more recent CERCLA guidance. If the Board concludes that the risk associated with residual soil contamination is acceptable, Abbott does not object to rescinding the waste discharge requirements.

2) Abbott requests that the Board require the discharger (Anacomp) to properly abandon all monitoring wells, dismantle and remove all remediation equipment and piping at 5440 Patrick Henry Drive within 120 days as a condition of rescinding the waste discharge requirements (Order 85-131). Because Abbott has no intention of maintaining the monitoring wells, they will be subject to deterioration and could provide a conduit for contaminants to enter groundwater.

2189.8118

3) Should future actions be required concerning the contaminants of concern identified in Order 85-131 the Board shall pursue such actions with Anacomp after consultation with Abbott.

Abbott appreciates the granting of the sixty day extension for review of the Tentative Order Rescinding Waste Discharge Requirements. Should you have any questions concerning these comments please contact David W. Stevens, our site Safety, Health and Environmental Coordinator at (408) 982-4800 Ext. 3316.

Sincerely,

Chris Monahan

Chris Monahan,
Vice President and
General Manager

DWS/dws
cc: C. van der Woerd, Anacomp

ABBOTT

FAX Transmittal Form

Diagnostics Division **FAX# 408-982-4864**

Human Resources Department
5440 Patrick Henry Drive
Santa Clara, CA 95054

Phone: 408-982-4800
Marilee Moy Ext. 3210
Diane Prins Ext. 3498
Lisa Schmae Ext. 3411
Dave Stevens Ext. 3316
Scott Swayne Ext. 3434

TO: Habte Kifle

FAX#: (510) 286-1380

ORGANIZATION: RWQCB

DEPARTMENT:

FROM: Dave Stevens

DATE: 11/16/93 11:45 Am

OF PAGES: 3

SUBJECT: Comments Re. Order 85-131

Habte, here's the letter per our phone discussion today.

Dave

2189.8118

ABBOTT

Diagnostics Division

Abbott Laboratories
5440 Patrick Henry Drive
Santa Clara, California 95054

November 15, 1993

Mr. Stephen L Morse
Chief, South Bay Toxics Division
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94621

SUBJECT: Tentative Order Rescinding Waste Discharge Requirements (Order 85-131)
For Anacomp Site, 5200 and 5440 Patrick Henry Drive, Santa Clara

REFERENCE: Your Letter Dated 9/30/93 Extending Comment Period

Dear Mr. Morse;

Sequoia-Turner, a wholly owned subsidiary of Abbott Laboratories, based in Lake County Illinois, purchased the Anacomp site located at 5440 Patrick Henry Drive, Santa Clara in 1992. As the current operator of the site, and in the interest of facilitating Anacomp's contractual obligations to Abbott concerning this issue, Abbott respectfully requests the Board's consideration and inclusion of the following comments in the final order rescinding Order 85-131.

1) The Tentative Order Rescinding Waste Discharge Requirements (Order 85-131) for the Anacomp Site, 5200 and 5440 Patrick Henry Drive, Santa Clara, describes a baseline public health evaluation (BPHE) and risk assessment prepared by the discharger. The future-use scenario involving "the exposure of construction workers to contaminated soil and/or groundwater, via dermal contact, inhalation, and or ingestion routes," is a realistic scenario for Abbott Laboratories. Testing commissioned by Dysan, Xidex, and Anacomp during the site investigation, subsequent monitoring program and for site closure activities with the Santa Clara Fire Department has shown soil contamination. However, soil remediation was not performed. Further, while the BPHE addresses exposures for Chemicals of Concern (COC's) due to dermal contact and ingestion pathways, the inhalation pathway was not accounted for. The more recent soils investigations performed for Anacomp detected concentrations of Volatile Organic Compounds (VOC's) higher than concentrations used in the original risk assessment. For example, concentrations of methyl ethyl ketone (MEK) were up to four orders of magnitude greater than those used in the original risk assessment. Based on the above information it may be appropriate to review the conclusions of the BPHE and risk assessment with respect to the more recent CERCLA guidance. If the Board concludes that the risk associated with residual soil contamination is acceptable, Abbott does not object to rescinding the waste discharge requirements.

2) Abbott requests that the Board require the discharger (Anacomp) to properly abandon all monitoring wells, dismantle and remove all remediation equipment and piping at 5440 Patrick Henry Drive within 120 days as a condition of rescinding the waste discharge requirements (Order 85-131). Because Abbott has no intention of maintaining the monitoring wells, they will be subject to deterioration and could provide a conduit for contaminants to enter groundwater.

3) Should future actions be required concerning the contaminants of concern identified in Order 85-131 the Board shall pursue such actions with Anacomp after consultation with Abbott.

Abbott appreciates the granting of the sixty day extension for review of the Tentative Order Rescinding Waste Discharge Requirements. Should you have any questions concerning these comments please contact David W. Stevens, our site Safety, Health and Environmental Coordinator at (408) 982-4800 Ext. 3316.

Sincerely,

Chris Monahan

Chris Monahan,
Vice President and
General Manager

DWS/dws
cc: C. van der Woerd, Anacomp

AUTOMATIC COVER SHEET

DATE: NOV-16-93 TUE 11:44

TO:

FAX #: 5102861380

FROM: ADD SC HUMAN RESOURCES

FAX #: 4089824864

04 PAGES WERE SENT

(INCLUDING THIS COVER PAGE)

ABBOTT

Diagnostics Division

Abbott Laboratories
5440 Patrick Henry Drive
Santa Clara, California 95054

November 15, 1993

CALIFORNIA REGIONAL WATER
NOV 17 1993
QUALITY CONTROL BOARD

Mr. Stephen I. Morse
Chief, South Bay Toxics Division
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94621

SUBJECT: Tentative Order Rescinding Waste Discharge Requirements (Order 85-131)
For Anacomp Site, 5200 and 5440 Patrick Henry Drive, Santa Clara

REFERENCE: Your Letter Dated 9/30/93 Extending Comment Period

Dear Mr. Morse:

Sequoia-Turner, a wholly owned subsidiary of Abbott Laboratories, based in Lake County Illinois, purchased the Anacomp site located at 5440 Patrick Henry Drive, Santa Clara in 1992. As the current operator of the site, and in the interest of facilitating Anacomp's contractual obligations to Abbott concerning this issue, Abbott respectfully requests the Board's consideration and inclusion of the following comments in the final order rescinding Order 85-131.

1) The Tentative Order Rescinding Waste Discharge Requirements (Order 85-131) for the Anacomp Site, 5200 and 5440 Patrick Henry Drive, Santa Clara, describes a baseline public health evaluation (BPHE) and risk assessment prepared by the discharger. The future-use scenario involving "the exposure of construction workers to contaminated soil and/or groundwater, via dermal contact, inhalation, and or ingestion routes," is a realistic scenario for Abbott Laboratories. Testing commissioned by Dysan, Xidex, and Anacomp during the site investigation, subsequent monitoring program and for site closure activities with the Santa Clara Fire Department has shown soil contamination. However, soil remediation was not performed. Further, while the BPHE addresses exposures for Chemicals of Concern (COC's) due to dermal contact and ingestion pathways, the inhalation pathway was not accounted for. The more recent soils investigations performed for Anacomp detected concentrations of Volatile Organic Compounds (VOC's) higher than concentrations used in the original risk assessment. For example, concentrations of methyl ethyl ketone (MEK) were up to four orders of magnitude greater than those used in the original risk assessment. Based on the above information it may be appropriate to review the conclusions of the BPHE and risk assessment with respect to the more recent CERCLA guidance. If the Board concludes that the risk associated with residual soil contamination is acceptable, Abbott does not object to rescinding the waste discharge requirements.

2) Abbott requests that the Board require the discharger (Anacomp) to properly abandon all monitoring wells, dismantle and remove all remediation equipment and piping at 5440 Patrick Henry Drive within 120 days as a condition of rescinding the waste discharge requirements (Order 85-131). Because Abbott has no intention of maintaining the monitoring wells, they will be subject to deterioration and could provide a conduit for contaminants to enter groundwater.

2189.8118

3) Should future actions be required concerning the contaminants of concern identified in Order 85-131 the Board shall pursue such actions with Anacomp after consultation with Abbott.

Abbott appreciates the granting of the sixty day extension for review of the Tentative Order Rescinding Waste Discharge Requirements. Should you have any questions concerning these comments please contact David W. Stevens, our site Safety, Health and Environmental Coordinator at (408) 982-4800 Ext. 3316.

Sincerely,

Chris Monahan

Chris Monahan,
Vice President and
General Manager

DWS/dws
cc: C. van der Woerd, Anacomp

ABBOTT

FAX Transmittal Form

Diagnostics Division **FAX# 408-982-4864**

Human Resources Department
5440 Patrick Henry Drive
Santa Clara, CA 95054

Phone: 408-982-4800
Marilee Moy Ext. 3210
Diane Prins Ext. 3498
Lisa Schmae Ext. 3411
Dave Stevens Ext. 3316
Scott Swayne Ext. 3434

TO: Habte Kifle

FAX#: (510) 286-1380

ORGANIZATION: RWQCB

DEPARTMENT:

FROM: Dave Stevens

DATE: 11/16/93 11:45 Am

OF PAGES: 3

SUBJECT: Comments Re. Order 85-131

Habte, here's the letter per our phone discussion today.

Dave

2189.8118

ABBOTT

Diagnostics Division

Abbott Laboratories
5440 Patrick Henry Drive
Santa Clara, California 95054

November 15, 1993

Mr. Stephen L Morse
Chief, South Bay Toxics Division
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94621

SUBJECT: Tentative Order Rescinding Waste Discharge Requirements (Order 85-131)
For Anacomp Site, 5200 and 5440 Patrick Henry Drive, Santa Clara

REFERENCE: Your Letter Dated 9/30/93 Extending Comment Period

Dear Mr. Morse;

Sequoia-Turner, a wholly owned subsidiary of Abbott Laboratories, based in Lake County Illinois, purchased the Anacomp site located at 5440 Patrick Henry Drive, Santa Clara in 1992. As the current operator of the site, and in the interest of facilitating Anacomp's contractual obligations to Abbott concerning this issue, Abbott respectfully requests the Board's consideration and inclusion of the following comments in the final order rescinding Order 85-131.

1) The Tentative Order Rescinding Waste Discharge Requirements (Order 85-131) for the Anacomp Site, 5200 and 5440 Patrick Henry Drive, Santa Clara, describes a baseline public health evaluation (BPHE) and risk assessment prepared by the discharger. The future-use scenario involving "the exposure of construction workers to contaminated soil and/or groundwater, via dermal contact, inhalation, and or ingestion routes," is a realistic scenario for Abbott Laboratories. Testing commissioned by Dysan, Xidex, and Anacomp during the site investigation, subsequent monitoring program and for site closure activities with the Santa Clara Fire Department has shown soil contamination. However, soil remediation was not performed. Further, while the BPHE addresses exposures for Chemicals of Concern (COC's) due to dermal contact and ingestion pathways, the inhalation pathway was not accounted for. The more recent soils investigations performed for Anacomp detected concentrations of Volatile Organic Compounds (VOC's) higher than concentrations used in the original risk assessment. For example, concentrations of methyl ethyl ketone (MEK) were up to four orders of magnitude greater than those used in the original risk assessment. Based on the above information it may be appropriate to review the conclusions of the BPHE and risk assessment with respect to the more recent CERCLA guidance. If the Board concludes that the risk associated with residual soil contamination is acceptable, Abbott does not object to rescinding the waste discharge requirements.

2) Abbott requests that the Board require the discharger (Anacomp) to properly abandon all monitoring wells, dismantle and remove all remediation equipment and piping at 5440 Patrick Henry Drive within 120 days as a condition of rescinding the waste discharge requirements (Order 85-131). Because Abbott has no intention of maintaining the monitoring wells, they will be subject to deterioration and could provide a conduit for contaminants to enter groundwater.

3) Should future actions be required concerning the contaminants of concern identified in Order 85-131 the Board shall pursue such actions with Anacomp after consultation with Abbott.

Abbott appreciates the granting of the sixty day extension for review of the Tentative Order Rescinding Waste Discharge Requirements. Should you have any questions concerning these comments please contact David W. Stevens, our site Safety, Health and Environmental Coordinator at (408) 982-4800 Ext. 3316.

Sincerely,

Chris Monahan

Chris Monahan,
Vice President and
General Manager

DWS/dws
cc: C. van der Woerd, Anacomp

AUTOMATIC COVER SHEET

DATE: NOV-16-93 TUE 11:44

TO:

FAX #: 5102861380

FROM: ADD SC HUMAN RESOURCES

FAX #: 4089824864

04 PAGES WERE SENT

(INCLUDING THIS COVER PAGE)

STATE OF CALIFORNIA PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
OAKLAND, CA 94612
(510) 464-1255

May 4, 1992
File Nos. 2188.20, [redacted]8(SAH)
2189.8118

Chris van der Woerd
Environmental Manager
Anacomp, Inc.
5440 Patrick Henry Drive
Santa Clara, CA 95050

RE: Anacomp property at 5100 Patrick Henry Drive, Santa Clara

Dear Mr. van der Woerd:

This letter responds to your March 26 letter, in which you requested our review of a subsurface investigation at 5100 Patrick Henry Drive. The investigation was done as part of a pending property transfer. It found low levels of volatile organic compounds in groundwater beneath the building. As explained below, these results do not warrant remedial investigation at this time. However, we lack sufficient information to write a "no further action" letter for this site. I request further monitoring at this site, as detailed below.

The site is located next to Calabazas Creek in northwestern Santa Clara. It is owned by Anacomp (formerly Xidex, formerly Dysan) and was used for magnetic disk manufacturing by these firms from 1981 to 1991. The site is now inactive pending sale. None of the VOCs detected in groundwater beneath the building were used in the manufacturing process.

Wahler Associates performed a subsurface investigation for the site, producing two reports dated December 1991 and February 1992. Hand-augered borings beneath the building found low concentrations of trichloroethene (TCE) and cis-1,2-dichloroethene (DCE) in the first-encountered groundwater at a depth of about ten feet. Detected concentrations ranged from 7 to 18 ug/l, with one TCE concentration of 100 ug/l. No TCE was found in soil from this latter boring. Monitoring wells on three sides of the building found no TCE or DCE in soil or first-encountered groundwater. The six wells showed an east-northeast groundwater gradient. Groundwater elevations are influenced daily by Calabazas Creek, which is tidal in this stretch.

The February 1992 Wahler report does not identify a source for the TCE or DCE but suggests two possibilities: Calabazas Creek or the Rolm site across Tasman Drive to the south. The report finds no evidence to support the earlier finding by an environmental audit of a possible solvent leak in the building.

After reviewing the two Wahler reports, my staff cannot exclude the possibility of an on-site source of VOCs. Only one soil sample was analyzed from the seven hand-borings in the area where TCE was found in first groundwater. No monitoring wells were installed down-gradient from the TCE "hit", leaving open the possibility that TCE is migrating off the site. At the same time, the VOC concentrations are modest. With the exception of one groundwater result from a hand-augered boring, the concentrations are not much above the state's Maximum Contaminant Levels (MCLs) for drinking water (5 ug/l for TCE and 6 ug/l for cis-1,2-DCE). We place more weight on the monitoring well results, due to the better QA/QC possible in sampling groundwater in wells versus borings.

For the reasons noted above, I will not recommend that your firm initiate a remedial investigation at this time. However, I do request that your firm install at least two monitoring wells down-gradient from the TCE "hit" under the building. The wells should be designed and constructed similarly to the existing six monitoring wells on the site. I also request that you continue to monitor these wells for at least four more quarters. Monitoring should include groundwater elevations and analysis for VOCs and related parameters. I will consider writing a "no further action" letter for this site following receipt of this additional monitoring data, depending on the results.

Please contact Mr. Stephen Hill of my staff at (510) 464-0433 if you have any questions.

Sincerely,

STEVEN R. RITCHIE
Executive Officer

Steven Morse
Division Chief

cc: Greg Geary, Coherent
Tom Iwamura, Santa Clara Valley Water District
David Parker, City of Santa Clara FD

anacomp®
Anacomp, Inc.
5440 Patrick Henry Drive
Santa Clara, CA 95050
(408) 988-3472

Mr. Steve Hill
California Regional Water Quality Control Board,
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

March 26, 1992

Dear Mr. Hill,

Attached are two reports prepared by Wahler Associates concerning a property assessment investigation conducted at 5100 Patrick Henry Drive. The first report is titled *Continued Subsurface Investigation, 5100 Patrick Henry Drive, Santa Clara, California.* 12/91

This report documents soil samples and groundwater "grab" samples collected which contained part per billion (ppb) levels of volatile organic compounds. Of greatest concern, was the detection of trichloroethene at a concentration of 100 ppb.

To determine if the results could be indicative of a larger problem, a more detailed investigation was implemented. The results are summarized in the second report titled *Subsurface Investigation, 5100 Patrick Henry Drive, Santa Clara, California.* 2/92 During this investigation, six shallow monitoring wells were installed, and an additional 10 groundwater grab samples were collected. Freon 113 was detected in one monitoring well at a concentration of 18 ppb. TCE was not detected in any monitoring wells. TCE was detected in three groundwater grab samples located in very close proximity to the first sample which detected TCE. The concentrations of the of the three groundwater grab samples were considerably lower than the original sample (7.3 ppb, 9 ppb, and 18 ppb). Cis-1,2-dichloroethene (DCE) was also detected in one of the grab samples at a concentration of 10 ppb.

The results of the investigation appear to indicate a small area of TCE contamination. The source of the TCE is unknown. The companies which have occupied the building since 1981 (Dysan, Xidex, and Anacomp) did not use TCE in their manufacturing operations. Wahler Associates hypothesize that the source could be Calabazas Creek which lies on the western boundary of the site.

The data collected suggest a small isolated elevated level of volatile organic compounds which do not pose a significant threat. We would appreciate your review and comments regarding these investigations.

If you have any questions regarding these reports, please call me at (408) 733 7252.

Yours Truly,

Chris van der Woerd

Chris van der Woerd
Environmental Manager
Anacomp, Inc.

anacomp®

CALIF. REG. WATER
OCT 14 1992 STATE
QLTY. CONTROL BOARD

Mr. Steven R. Ritchie
Executive Officer
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

October 12, 1992

Attn: Stephen Hill/Cost Recovery

Dear Mr. Ritchie:

I am in receipt of your letter dated September 23, 1992 concerning cost reimbursement for Regional Board staff costs involved with oversight of cleanup and abatement efforts at our 5200 and 5440 Patrick Henry Drive sites in Santa Clara, RWQCB file no. 2189.8118(SAH).

Our firm is willing to pay the necessary costs for staff oversight in accordance with the terms and billing procedures described in your letter and its attachments.

If you have any questions concerning this letter, or the sites, please call me at (510) 889-0324.

Sincerely,

Chris van der Woerd

Chris van der Woerd
Manager of Environmental Affairs
Anacomp, Inc.

cc: Richard McMurtry, GPWC Division of RWQCB
Dan Falstad, Anacomp, Inc.
Eric Whinston, Anacomp, Inc.

File: 2189.8118

STATE OF CALIFORNIA

PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
OAKLAND, CA 94612

Phone: (510) 286-1255
Fax: (510) 286-1380

Date: September 23, 1992
File No: 2189.8118(SAH)

Chris Van der Woerd
Anacomp, Inc.
22351 City Center Drive
Hayward, CA 94541

SUBJECT: Cost Recovery at Anacomp's Santa Clara Site

Dear Mr. Van der Woerd:

Soil and groundwater pollution has previously been identified at your site at 5200 and 5440 Patrick Henry Drive in Santa Clara. Major pollutants include methyl ethyl ketone, cyclohexanone, isopropyl alcohol, and acetone. The pollution appears to be the result of spillage, inadequate chemical handling, overflows, and/or leakage from underground tanks on the site. You have conducted a remedial investigation and have implemented interim remedial actions, but final site cleanup and/or closure requirements have not been approved.

I am sure that we all would like to see the situation at this site resolved. In order to assure that sufficient Regional Board staff resources are available to conduct the necessary reviews and approvals, we intend to include this site in this Region's Cost Recovery Program.

Section 13304 of the California Water Code empowers the Regional Board to take necessary action to require the cleanup and abatement of waste discharges such as have occurred at your site, and to seek reimbursement for all reasonable costs actually incurred by the Regional Board in investigating unauthorized discharges of waste and in overseeing cleanup of such waste, abatement of the effects thereof, or other remedial action.

It is our intent in the future to issue Site Cleanup Requirements establishing a task and time schedule to conduct any additional studies and implement any additional cleanup action and requiring the reimbursement of staff costs for oversight of these cleanup and abatement activities.

We estimate that about 50 labor hours may be required in the oversight of the site cleanup, including technical report review, for the remainder of the State fiscal year which ends June 30, 1993. This is merely an estimate. The actual time needed will depend on the nature and extent of the necessary cleanup oversight. The state billing

rate is about $60 per hour, but the rate will vary depending on the salary of the individuals responsible for the oversight. In order to assure adequate cash flow to enable allocation of staff for oversight of your case, a deposit will be required equal to three months of anticipated expenditures, which we estimate to be about $1,500. An estimate for any necessary work after June 30, 1993, will be provided to you in spring 1993.

At this stage in the process, we request that you sign and submit the attached form or its equivalent, indicating that you intend to pay the cost recovery bills to be sent to you. We expect that you will be billed for the deposit on or shortly after January 1, 1993. The billing process will be similar to that described in Attachment A.

Please note that signing such a form does not constitute any admission of liability, but rather only an intent to pay for costs associated with oversight. We believe that such oversight is in the best interest of expeditious resolution of cleanup issues at your site and therefore in the best interest of all parties concerned.

We request that you return the attached form or equivalent by **October 16, 1992.**

If you have any questions concerning this letter, please contact Mr. Stephen Hill of my staff at (510) 286-0433.

Sincerely,

STEVEN R. RITCHIE
Executive Officer

Attachments: Form Letter
Billing Procedures for Cost Recovery

cc: Richard McMurtry, GPWC Division of RWQCB

STATE OF CALIFORNIA PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
OAKLAND, CA 94612
(510) 464-1255

May 4, 1992
File Nos. 2188.20, 2189.8188(SAH)

Chris van der Woerd
Environmental Manager
Anacomp, Inc.
5440 Patrick Henry Drive
Santa Clara, CA 95050

RE: Anacomp property at 5100 Patrick Henry Drive, Santa Clara

Dear Mr. van der Woerd:

This letter responds to your March 26 letter, in which you requested our review of a subsurface investigation at 5100 Patrick Henry Drive. The investigation was done as part of a pending property transfer. It found low levels of volatile organic compounds in groundwater beneath the building. As explained below, these results do not warrant remedial investigation at this time. However, we lack sufficient information to write a "no further action" letter for this site. I request further monitoring at this site, as detailed below.

The site is located next to Calabazas Creek in northwestern Santa Clara. It is owned by Anacomp (formerly Xidex, formerly Dysan) and was used for magnetic disk manufacturing by these firms from 1981 to 1991. The site is now inactive pending sale. None of the VOCs detected in groundwater beneath the building were used in the manufacturing process.

Wahler Associates performed a subsurface investigation for the site, producing two reports dated December 1991 and February 1992. Hand-augered borings beneath the building found low concentrations of trichloroethene (TCE) and cis-1,2-dichloroethene (DCE) in the first-encountered groundwater at a depth of about ten feet. Detected concentrations ranged from 7 to 18 ug/l, with one TCE concentration of 100 ug/l. No TCE was found in soil from this latter boring. Monitoring wells on three sides of the building found no TCE or DCE in soil or first-encountered groundwater. The six wells showed an east-northeast groundwater gradient. Groundwater elevations are influenced daily by Calabazas Creek, which is tidal in this stretch.

The February 1992 Wahler report does not identify a source for the TCE or DCE but suggests two possibilities: Calabazas Creek or the Rolm site across Tasman Drive to the south. The report finds no evidence to support the earlier finding by an environmental audit of a possible solvent leak in the building.

After reviewing the two Wahler reports, my staff cannot exclude the possibility of an on-site source of VOCs. Only one soil sample was analyzed from the seven hand-borings in the area where TCE was found in first groundwater. No monitoring wells were installed down-gradient from the TCE "hit", leaving open the possibility that TCE is migrating off the site. At the same time, the VOC concentrations are modest. With the exception of one groundwater result from a hand-augered boring, the concentrations are not much above the state's Maximum Contaminant Levels (MCLs) for drinking water (5 ug/l for TCE and 6 ug/l for cis-1,2-DCE). We place more weight on the monitoring well results, due to the better QA/QC possible in sampling groundwater in wells versus borings.

For the reasons noted above, I will not recommend that your firm initiate a remedial investigation at this time. However, I do request that your firm install at least two monitoring wells down-gradient from the TCE "hit" under the building. The wells should be designed and constructed similarly to the existing six monitoring wells on the site. I also request that you continue to monitor these wells for at least four more quarters. Monitoring should include groundwater elevations and analysis for VOCs and related parameters. I will consider writing a "no further action" letter for this site following receipt of this additional monitoring data, depending on the results.

Please contact Mr. Stephen Hill of my staff at (510) 464-0433 if you have any questions.

Sincerely,

STEVEN R. RITCHIE
Executive Officer

Steven Morse
Division Chief

cc: Greg Geary, Coherent
Tom Iwamura, Santa Clara Valley Water District
David Parker, City of Santa Clara FD

APR 16 1993

ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC.
11808 NORTHUP WAY, SUITE 104
BELLEVUE, WASHINGTON 98005
206/889-1000 FAX 206/889-1010

April 13, 1993

Mr. Steve Hill
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Subject: Groundwater Monitoring Reports (April 1993)
5440 Patrick Henry Drive and 5100 Patrick Henry Drive Sites
Anacomp, Inc., Santa Clara, California

Dear Steve:

In your absence, I made contact with Mr. John Hillenbrand, Associate Engineering Geologist (and Acting Section Leader) of your office and discussed the groundwater monitoring reports (5440 Patrick Henry Drive site and 5100 Patrick Henry Drive site reports) due April 15, 1993.

We requested an extension due to some schedule conflicts, and with Mr. Hillenbrand's approval, we have agreed to a revised due date of April 26, 1993 for the subject April 1993 groundwater monitoring reports. Our preliminary review of the data does not indicate any major changes in the environmental conditions observed. *

If you have any questions with regard to this, please call Mr. Chris van der Woerd of Anacomp, Inc. at (510) 889-0324.

Sincerely,

for Cynthia S. Rhode
James F. Shellooe, P.E.
Project Manager

JFS:csr

cc: J. Hillenbrand
K. Jennings
C. van der Woerd

* Technically, we agreed not to enforce the non-compliance for this period since staff can't extend WDR/SCR deadlines established by the Board.
—SAH

ANACOMP\0517400303\GW-EXTEN.LTR

2189.8118

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
OAKLAND, CA 94612

PETE WILSON, *Governor*

TEL: (510) 286-1255
FAX: (510) 286-1380

February 24, 1993
File No. 2189.8118(GHW)
Task No. 72147

Mr. Chris van der Woerd
Manager of Environmental Affairs
Anacomp, Inc.
22351 City Center Drive
Hayward, CA 94541

Subject: Spills, Leaks, Investigations and Cleanups (SLIC) Cleanup Program for Oversight Costs at 5200 and 5440 Patrick Henry Drive, Santa Clara, CA

Dear Mr. van der Woerd,

This is a bill for a $1,500 deposit as described in our September 23, 1992 letter, and your December 4, 1993 letter and your October 12, 1992 letter. Upon receipt of the deposit we will enroll the subject facility in our SLIC Cleanup Program. This is due no later than March 24, 1993 and payments shall be made to "California Water Quality Control Board, San Francisco Bay Region", addressed to Greg Walker, of our office.

If you have any questions, please contact Greg Walker at (510) 286-4213.

Sincerely,

Steven R. Ritchie
Executive Officer

Steven I. Morse, Chief
South Bay Toxics Cleanup Division

cc: Kitty Hightower, CWP
Steven Hill, RWQCB

XIDEX
CORPORATION

February 15, 1989

FEB 16 1989
QUALITY CONTROL BOARD

Mr. John Wolfenden
Water Resource Engineer
California Regional Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street, Room 6040
Oakland, CA 94607

Dear Mr. Wolfenden:

Enclosed is the bi-monthly monitoring report by Xidex Corporation for its facilities located in Santa Clara for the month of February, 1989.

During the reporting period (December, 1989 and January, 1989) Xidex expanded the sampling program to:

1. Determine if diesel was present in monitoring wells around buildings located at 5301 and 5200 Patrick Henry Drive (PHD);

2. Assure that wells other than those usually sampled at 5200 PHD were free of methyl ethyl ketone, cyclohexanone, acetone and isopropyl alcohol;

3. Determine the limits of volatile organic compounds present in groundwater at 5440 PHD.

The results of these activities are covered in the report.

Due to the extra sampling which occurred at 5200 PHD, the company contracted to collect samples failed to collect samples at 5440 PHD during the month of December. This oversight was corrected in January.

P.O.Box 58053
Santa Clara, Ca 95050
(408) 988-3472

File 2189.8118

Groundwater extraction and treatment has not resumed. The problems previously reported have been corrected. However, it has since been determined that the stripper air quality abatement equipment is not operational. Resuming treatment would put us in violation of our air quality permit. Additional time will be needed to correct the problem.

If you have any questions please call me at (408) 970-6453.

Very truly yours,

Chris van der Woerd

Chris van der Woerd
Environmental Specialist

CVDW:js

cc: Robert Campbell, City of Santa Clara
Lee Esquibel, Santa Clara County Health Department
Howard Hatayma, California Department of Health Services
Tom Iwamura, Santa Clara Valley Water District

XIDEX
An anacomp Company

VIA AIRBORNE EXPRESS

CALIFORNIA REGIONAL WATER
OCT 0 2 1989
QUALITY CONTROL BOARD

September 29, 1989

Steve I. Morse, Chief
South Bay Toxics Division
California Regional Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street, Room 6040
Oakland, CA 94607

Dear Mr. Morse:

Xidex Corporation is pleased to present the enclosed "Final Remedial Action Plan for the 5200 and 5440 Patrick Henry Drive Facilities" (the "Plan") prepared by ICF Technology, Incorporated.

The Plan presents a site history showing significant progress in cleanup. The effectiveness of the existing extraction system is demonstrated. Final cleanup goals based upon a detailed risk analysis are presented.

Standards established in the cleanup goals have already been met at 5200 Patrick Henry Drive (PHD). The plan presents a methodology for demonstrating final cleanup of the 5200 PHD site. Cleanup goal standards are exceeded in only three wells at 5440 PHD. The Plan proposes additional testing and continued pumping at 5440 PHD until the standards are met. The Plan also proposes a methodology for demonstrating final cleanup of 5440 PHD.

During the course of ICF's investigation, it was determined that additional sampling and analysis for diesel was needed to augment the data base. These samples were collected but we have not yet received the laboratory analysis. The results of these analysis will be submitted in the next bi-monthly report.

Although the Plan does not indicate resuming pumping of groundwater until the summer of 1990, it is Xidex's intention to resume pumping at 5440 PHD when air quality permitting issues are resolved.

This report has not been reviewed due to low priority. Report in report file.

P.O.Box 58053
Santa Clara, Ca 95050
(408) 988-3472

2189. 8118

Xidex requests early approval of the Plan so that we may implement the proposed quarterly monitoring schedule and begin the testing and data collection necessary to finalize the groundwater cleanup project at the facilities.

If you have any questions, please call me at (408) 970-6453.

Very truly yours,

Chris van der Woerd

Chris van der Woerd
Manager of Environmental Affairs

CVDW:js

Enclosure

cc: David Parker, City of Santa Clara
Lee Esquibel, Santa Clara County Health Department
Ms. Pamela Foley, W.F. Batton & Company, Inc.
Howard Hatayma, California Department of Health Services
Tom Iwamura, Santa Clara Valley Water District
Chuck Groat, Xidex
Jim Larkin, Xidex
Jesse McDaniel, Anacomp

FINAL REMEDIAL ACTION PLAN
FOR THE
5200 AND 5440 PATRICK HENRY DRIVE FACILITIES

Prepared for

XIDEX CORPORATION
5302 BETSY ROSS DRIVE
SANTA CLARA, CALIFORNIA

Prepared by

ICF KAISER ENGINEERS
11808 NORTHUP WAY, SUITE 104
BELLEVUE, WASHINGTON

September 1989

EXECUTIVE SUMMARY

The Xidex Corporation, formerly known as the Dysan Corporation, in 1982 began investigating leaking underground storage tanks at its tank farm facilities located at 5200 and 5440 Patrick Henry Drive (PHD), Santa Clara, California. Several monitoring wells were installed around the tank farms at the Xidex facilities between the years 1982 to 1985. Sample analysis in 1982 detected levels of methyl ethyl ketone (MEK), isopropanol, cyclohexanone, diesel, diglyme, and 2-ethoxyethanol (cellosolve) in groundwater.

Two tank farms existed at the 5200 PHD and one tank farm existed at 5440 PHD. In 1983 and 1984, the tanks at the tank farms were emptied and the tanks cleaned. In September and October 1988, all underground storage tanks were removed from the 5200 and 5440 PHD facilities. A groundwater extraction and treatment system for the removal of contaminants operated at the Xidex facilities during 1985 to 1988.

Recent sampling indicates that residual levels of contaminants are still present in the shallow aquifer at the 5440 PHD location. This shallow aquifer is within a zone known to be influenced by saltwater intrusion and is most likely saline and of poor quality.

The concentrations of contaminants in soils at the two facilities are well below acceptable levels based on the risk evaluation discussed in Section 5.0. Likewise, the concentrations of most contaminants in groundwater at the two facilities are near acceptable levels based on the risk evaluation. The exception is the residual MEK contamination at the 5440 PHD site for which health-based groundwater cleanup goals have been calculated. The cleanup goals have been developed to be protective of human health for 70-year or 7-year exposure periods. The target cleanup goals for MEK are 1.8 ppm and 18 ppm for the 70-year and 7-year exposures, respectively. These health-based target cleanup goals are the same as the Applied Action Levels (AALs) for MEK adopted by the State of California because the same risk assessment procedure has been used in both cases.

The program described in the Remedial Action Plan, Section 6.0, includes activities designed to reduce MEK to these acceptable levels. Furthermore, this program includes periodic testing to ensure that the other contaminants

present in prior years at the site remain below the target cleanup goals listed in the following table:

Contaminant Cleanup Goals

MEK	1.8 ppm
Acetone	3.5 ppm
Cyclohexanone	1.5 ppm
Diglyme	4900.0 ppm
Diesel	1.0 ppm

The same methodology used for derivation of the above values is used to develop the State of California AALs (with the exception of diesel). The diesel target goal was developed using the State of California Maximum Contaminant Level (MCL) for benzene as an indicator and the fact that diesel may contain up to 0.1% benzene. Xidex will be conducting remediation at the facilities until target cleanup goals, as listed in the above table, are met. For the contaminants listed above, only the MEK AAL has been published.

The final remedial action plan (RAP) has been developed based on a thorough review of both the historical trends and current conditions. Factors considered in the development of the plan are:

1. Adequacy of the existing monitoring well system.
2. Degradation potential of the constituents of concern.
3. Current contaminant concentrations in groundwater and soils.
4. Potential exposure pathways for any residual contaminants.
5. Health-risk based goals for cleanup of contaminants of concern in soils and groundwater.
6. Applicable EPA and State standards for preservation of groundwater quality.
7. Available methods for disposal of treated groundwater at the facility.

The RAP includes groundwater pumping tests, continued pumping, associated monitoring and the decision basis for guidance of future operations. The anticipated RAP schedule of activities is included in Section 6.

account for any seasonal variation in groundwater elevation which may contribute to changes in the groundwater quality. The key items included in the plan are:

- interim operation pumping to validate the recent data,
- observation and sampling to monitor the effects,
- review of the remaining wells to evaluate adequacy,
- development of well destruction program,
- plans for continued monitoring, including location, frequency and parameters of analysis,
- plans for disposal of treated wastewater, and
- establishment of criteria for curtailment of pumping, treatment, and monitoring activities.

The Xidex facilities are within an area influenced by saltwater intrusion and shallow groundwater is considered saline. Water quality within this shallow aquifer is generally considered poor. There are no records of known groundwater wells for water supply within one mile of the Xidex facility.

Various exposure routes were considered in the development of health-based cleanup goals. The conservative analysis included in Section 5.6 allows for the remote possibility that ingestion of pumped groundwater could occur.

The concentrations of contaminants in soils at the two facilities are well below acceptable levels based on the risk evaluation discussed in Section 5.0. Likewise, the concentrations of contaminants in groundwater at the two facilities are near acceptable levels based on the risk evaluation. The exception is the residual methyl ethyl ketone (MEK) contamination at the 5440 PHD site for which we have calculated health-based groundwater cleanup goals considered protective for 70-year or 7-year exposure periods. The target cleanup goals for MEK are 1.8 ppm and 18 ppm for the 70-year and 7-year exposures, respectively. These health based cleanup goals are the same as the Applied Action Levels (AALs) for MEK adopted by the State of California because they have been derived based on the same risk assessment procedure.

FIGURE 6-5 PROJECT SCHEDULE

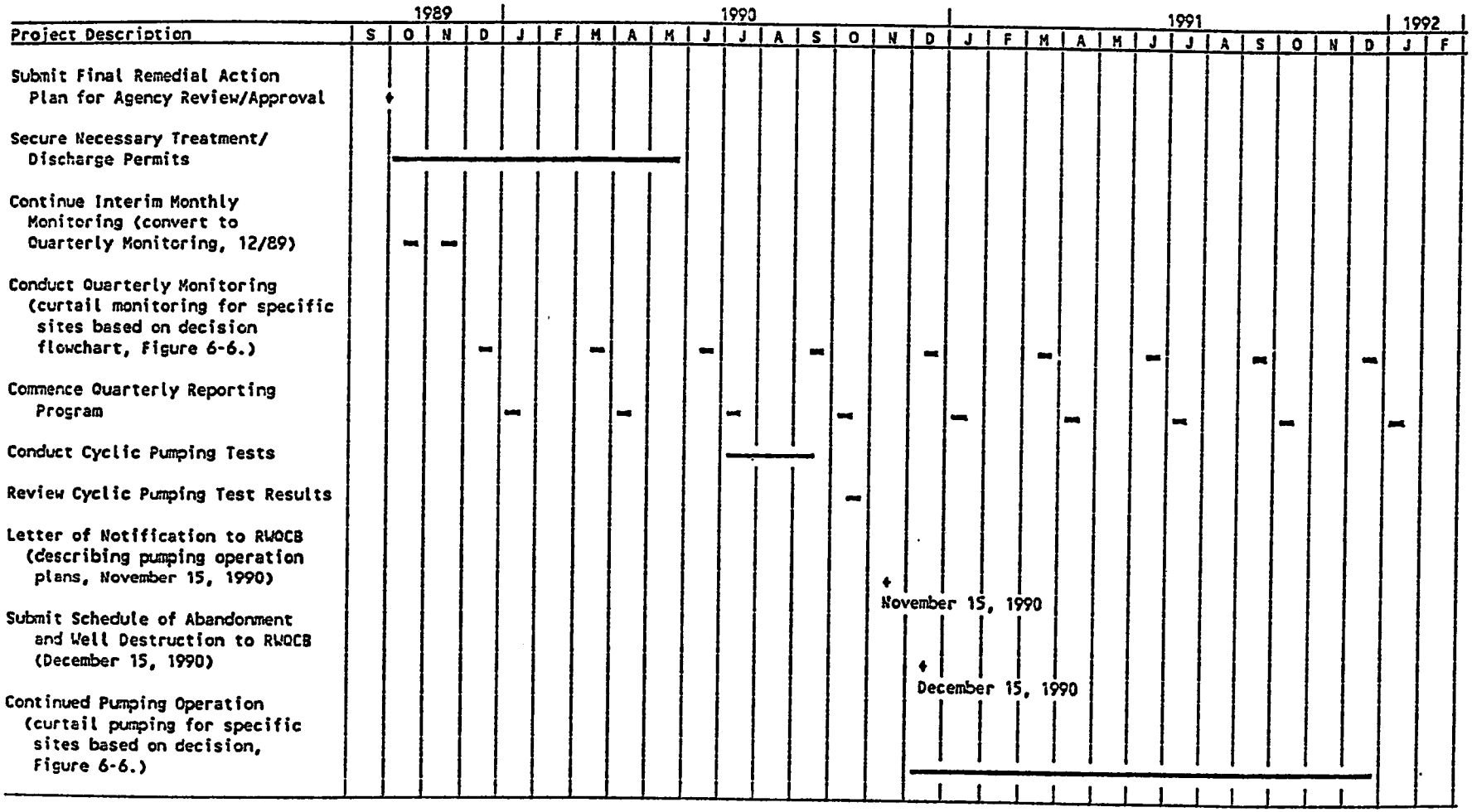


Table of Contents

		Page
1.0	INTRODUCTION	1
2.0	SITE HISTORY AND CHARACTERIZATION	2
	2.1 Site History	2
	2.2 Hydrogeologic Setting	7
	2.2.1 Geology	7
	2.2.2 Soils	10
	2.2.3 Groundwater	11
3.0	DATA EVALUATION	16
	3.1 Soil Sampling Data	16
	3.2 Groundwater Sampling Data	19
	3.3 Interim Cleanup Measures	30
	3.4 Current Conditions	32
4.0	EVALUATION OF THE ENVIRONMENTAL FATE OF METHYL ETHYL KETONE	37
	4.1 Chemical and Physical Properties of MEK	37
	4.1.1 Adsorption of Methyl Ethyl Ketone to Soils	38
	4.1.2 Biodegradation of Methyl Ethyl Ketone	39
	4.2 Fate of MEK at the 5200 and 5440 Sites	40
5.0	PUBLIC HEALTH EVALUATION	43
	5.1 Introduction	43
	5.2 Selection of Chemicals of Concern	44
	5.3 Identification of Exposure Pathways	44
	5.4 Estimation of Exposure Point Concentrations	46
	5.5 Risk Assessment	51
	5.5.1 Comparison to Applicable and Appropriate Standards and Criteria	51
	5.5.2 Quantitative Risk Assessment	52
	5.5.3 Populations at Risk and Exposure Estimates	53
	5.5.4 Estimation of Potential Health Risks	56
	5.5.5 Summary	60
	5.6 Cleanup Goals	61
	5.6.1 Cleanup Goals for Soils	61
	5.6.2 Cleanup Goals for Groundwater	62
	5.7 Summary	63
6.0	FINAL REMEDIAL ACTION PLAN	64
	6.1 Interim Operation Pumping	66
	6.2 Evaluation of Cyclic Testing Results	72
	6.3 Discharge of Extracted Groundwater	73
	6.4 Evaluation of Existing Wells	73

Table of Contents

continued

Page

REFERENCES 77

APPENDICES

A: Geological Cross-Sections
B: Groundwater Response During Cyclic Pumping
C: Toxicological Profiles
D: Calculation of Chemical Intakes and Cleanup Goals
E: Quality Assurance Project Plan

FINAL REMEDIAL ACTION PLAN
FOR THE
5200 AND 5440 PATRICK HENRY DRIVE FACILITIES

Prepared for

XIDEX CORPORATION
5302 BETSY ROSS DRIVE
SANTA CLARA, CALIFORNIA

Prepared by

ICF KAISER ENGINEERS
11808 NORTHUP WAY, SUITE 104
BELLEVUE, WASHINGTON

September 1989

EXECUTIVE SUMMARY

The Xidex Corporation, formerly known as the Dysan Corporation, in 1982 began investigating leaking underground storage tanks at its tank farm facilities located at 5200 and 5440 Patrick Henry Drive (PHD), Santa Clara, California. Several monitoring wells were installed around the tank farms at the Xidex facilities between the years 1982 to 1985. Sample analysis in 1982 detected levels of methyl ethyl ketone (MEK), isopropanol, cyclohexanone, diesel, diglyme, and 2-ethoxyethanol (cellosolve) in groundwater.

Two tank farms existed at the 5200 PHD and one tank farm existed at 5440 PHD. In 1983 and 1984, the tanks at the tank farms were emptied and the tanks cleaned. In September and October 1988, all underground storage tanks were removed from the 5200 and 5440 PHD facilities. A groundwater extraction and treatment system for the removal of contaminants operated at the Xidex facilities during 1985 to 1988.

Recent sampling indicates that residual levels of contaminants are still present in the shallow aquifer at the 5440 PHD location. This shallow aquifer is within a zone known to be influenced by saltwater intrusion and is most likely saline and of poor quality.

The concentrations of contaminants in soils at the two facilities are well below acceptable levels based on the risk evaluation discussed in Section 5.0. Likewise, the concentrations of most contaminants in groundwater at the two facilities are near acceptable levels based on the risk evaluation. The exception is the residual MEK contamination at the 5440 PHD site for which health-based groundwater cleanup goals have been calculated. The cleanup goals have been developed to be protective of human health for 70-year or 7-year exposure periods. The target cleanup goals for MEK are 1.8 ppm and 18 ppm for the 70-year and 7-year exposures, respectively. These health-based target cleanup goals are the same as the Applied Action Levels (AALs) for MEK adopted by the State of California because the same risk assessment procedure has been used in both cases.

The program described in the Remedial Action Plan, Section 6.0, includes activities designed to reduce MEK to these acceptable levels. Furthermore, this program includes periodic testing to ensure that the other contaminants

present in prior years at the site remain below the target cleanup goals listed in the following table:

Contaminant Cleanup Goals

MEK	1.8 ppm
Acetone	3.5 ppm
Cyclohexanone	1.5 ppm
Diglyme	4900.0 ppm
Diesel	1.0 ppm

The same methodology used for derivation of the above values is used to develop the State of California AALs (with the exception of diesel). The diesel target goal was developed using the State of California Maximum Contaminant Level (MCL) for benzene as an indicator and the fact that diesel may contain up to 0.1% benzene. Xidex will be conducting remediation at the facilities until target cleanup goals, as listed in the above table, are met. For the contaminants listed above, only the MEK AAL has been published.

The final remedial action plan (RAP) has been developed based on a thorough review of both the historical trends and current conditions. Factors considered in the development of the plan are:

1. Adequacy of the existing monitoring well system.
2. Degradation potential of the constituents of concern.
3. Current contaminant concentrations in groundwater and soils.
4. Potential exposure pathways for any residual contaminants.
5. Health-risk based goals for cleanup of contaminants of concern in soils and groundwater.
6. Applicable EPA and State standards for preservation of groundwater quality.
7. Available methods for disposal of treated groundwater at the facility.

The RAP includes groundwater pumping tests, continued pumping, associated monitoring and the decision basis for guidance of future operations. The anticipated RAP schedule of activities is included in Section 6.

Table of Contents

		Page
1.0	INTRODUCTION	1
2.0	SITE HISTORY AND CHARACTERIZATION	2
	2.1 Site History	2
	2.2 Hydrogeologic Setting	7
	2.2.1 Geology	7
	2.2.2 Soils	10
	2.2.3 Groundwater	11
3.0	DATA EVALUATION	16
	3.1 Soil Sampling Data	16
	3.2 Groundwater Sampling Data	19
	3.3 Interim Cleanup Measures	30
	3.4 Current Conditions	32
4.0	EVALUATION OF THE ENVIRONMENTAL FATE OF METHYL ETHYL KETONE	37
	4.1 Chemical and Physical Properties of MEK	37
	4.1.1 Adsorption of Methyl Ethyl Ketone to Soils	38
	4.1.2 Biodegradation of Methyl Ethyl Ketone	39
	4.2 Fate of MEK at the 5200 and 5440 Sites	40
5.0	PUBLIC HEALTH EVALUATION	43
	5.1 Introduction	43
	5.2 Selection of Chemicals of Concern	44
	5.3 Identification of Exposure Pathways	44
	5.4 Estimation of Exposure Point Concentrations	46
	5.5 Risk Assessment	51
	5.5.1 Comparison to Applicable and Appropriate Standards and Criteria	51
	5.5.2 Quantitative Risk Assessment	52
	5.5.3 Populations at Risk and Exposure Estimates	53
	5.5.4 Estimation of Potential Health Risks	56
	5.5.5 Summary	60
	5.6 Cleanup Goals	61
	5.6.1 Cleanup Goals for Soils	61
	5.6.2 Cleanup Goals for Groundwater	62
	5.7 Summary	63
6.0	FINAL REMEDIAL ACTION PLAN	64
	6.1 Interim Operation Pumping	66
	6.2 Evaluation of Cyclic Testing Results	72
	6.3 Discharge of Extracted Groundwater	73
	6.4 Evaluation of Existing Wells	73

Table of Contents

continued

Page

REFERENCES 77

APPENDICES

A: Geological Cross-Sections
B: Groundwater Response During Cyclic Pumping
C: Toxicological Profiles
D: Calculation of Chemical Intakes and Cleanup Goals
E: Quality Assurance Project Plan

List of Tables

		Page
Table 2-1.	Underground Storage Tanks	6
Table 2-2.	Groundwater Elevation Data	13
Table 3-1.	Soil Sampling Data	18
Table 3-2.	Groundwater Monitoring Data, MEK	21
Table 3-3.	Groundwater Monitoring Data, Acetone	23
Table 3-4.	Monitoring Well Data	24
Table 3-5.	Groundwater Monitoring Data, MEK, 5440	27
Table 3-6.	Groundwater Monitoring Data, Acetone, 5440	29
Table 4-1.	Chemical and Physical Properties of MEK	38
Table 5-1.	Chemicals of Concern Selected at the 5200 and 5440 PHD Sites	44
Table 5-3.	Exposure Point Concentrations of Contaminants of Concern Groundwater Under the Future Well Installation Scenario	50
Table 5-4.	Health Effects Criteria for Chemicals of Concern	53
Table 5-5.	Assumptions used to Estimate Exposure to Construction Workers via Direct Contact with Soil-- Future-Use Scenario at the Xidex Site	55
Table 5-6.	Chronic Daily Intake and Noncancer Risks to Construction Workers	59
Table 5-7.	Chronic Daily Intake and Risks to Residents Ingesting Shallow Groundwater	60
Table 6-1.	Contaminant Cleanup Goals	66

List of Figures

		Page
Figure 2-1.	Site Location Map	3
Figure 2-2.	Building 5200 Tank Farm Well Locations	4
Figure 2-3.	Building 5440 Tank Farm Well Locations	5
Figure 3-1.	Approximate Extent of Groundwater Contamination Building 5200 Tank Farm	26
Figure 3-2.	Approximate Extent of Groundwater Contamination Building 5440 Tank Farm	31
Figure 3-3.	5200 Monitoring Wells MEK Concentrations 1982 to Present	34
Figure 3-4.	5440 Monitoring Wells MEK Concentrations 1982 to Present	36
Figure 6-1.	Building 5200 Tank Farm Recovery System Capture Zone	68
Figure 6-2.	Building 5440 Tank Farm Recovery System Capture Zone	69
Figure 6-3.	Recommended Monitoring Program Well Locations Building 5200 Tank Farm	70
Figure 6-4.	Recommended Monitoring Program Well Locations Building 5440 Tank Farm	71
Figure 6-5.	Project Schedule	75
Figure 6-6.	Groundwater Pumping and Monitoring System Operation Flowchart	76

1.0 INTRODUCTION

Xidex was issued a request for a final remedial action plan for its 5200 and 5440 Patrick Henry Drive (PHD) facilities. The request was issued in a letter dated May 1, 1989 from the California Regional Water Quality Control Board (RWQCB), San Francisco Bay Region. In response to the letter, Xidex provided a workplan for the preparation of the RAP. This report presents the final remedial action plan (RAP) for the subject facilities.

The report begins in Section 2.0 with a review of the historical conditions and characteristics of the 5200 and 5440 PHD sites. Section 2.0 describes hydrogeology at the site including regional and local geology, soils, and groundwater characteristics at the 5200 and 5440 PHD facilities. Section 3.0 evaluates soil and groundwater sampling data which has been conducted at the sites, and summarizes the historical and current conditions. In addition, this section describes and characterizes the extent of soil and groundwater contamination and interim cleanup measures that have been implemented at the sites.

Sections 4.0 and 5.0 evaluate the fate of the chemicals of concern at the sites and present a public health evaluation of the chemicals identified at the 5200 and 5440 PHD facilities. The public health evaluation, Section 5.0, discusses the exposure pathways, risk assessment, and cleanup goals. Section 6.0 of the report defines the cleanup strategy and other key elements of the Remedial Action Plan (RAP).

2.0 SITE HISTORY AND CHARACTERIZATION

2.1 Site History

Underground storage tanks were installed on the Dysan Corporation 5200 and 5440 Patrick Henry Drive (PHD) facilities in 1979. In 1986 Dysan Corporation was acquired by Xidex Corporation (Xidex). The 5200 and 5440 PHD underground storage tanks consisted of three tank farms, two near Building 5200, and one near Building 5440. The facilities are located in an industrial area of Santa Clara, Santa Clara County, California between Patrick Henry Drive and Highway 237. The sites are located approximately 20 feet west of Buildings 5200 and 5440. Both sites are shown in the site location map, Figure 2-1. The tank farm areas near Building 5200 are situated in the access road/parking lot area between the west side of Building 5200 and Calabazas Creek levee as depicted on Figure 2-2. The Building 5440 tank farm is similarly located between the west side of Building 5440 and the Calabazas Creek levee as depicted on Figure 2-3.

The underground storage tank facilities were installed in 1979 for the storage of organic solvents and diesel. The number of tanks, capacity, and substances stored in these tanks are presented in Table 2-1. In 1982 and 1983 an investigation was conducted by IT Enviroscience at the 5200 and 5440 PHD sites which included the installation of monitoring wells. Chemical releases were detected in the monitoring well system installed during this investigation. In 1983 and 1984, the contents of the tanks were pumped out, hydroblasted clean, and the solvent tanks were wiped dry. In 1984 and 1985 an investigation was conducted at the facilities by McLaren Environmental Engineering which included soil borings, monitoring well installation, and water quality studies. In 1985 installation of a groundwater extraction and treatment system began at the 5200 and 5440 facilities. This system operated until approximately September 1988 with only minor maintenance and repair downtime. The extraction system was shut down in 1988 due to difficulties in obtaining a discharge permit from the Bay Area Air Quality Management District. Questa Engineering Corporation conducted water level monitoring during cyclic pumping of extraction wells during 1986-87.

FIGURE 2-1. SITE LOCATION MAP

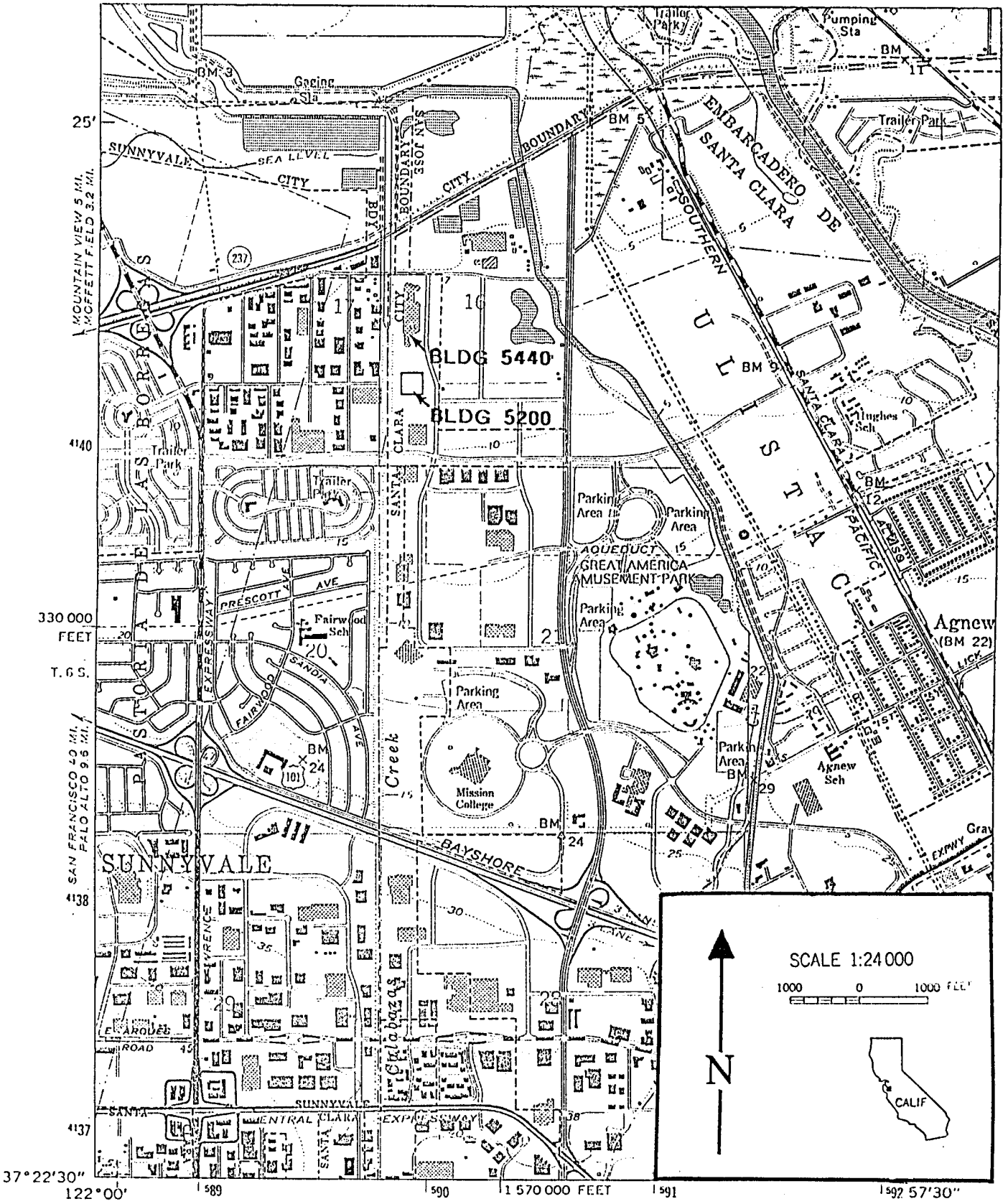
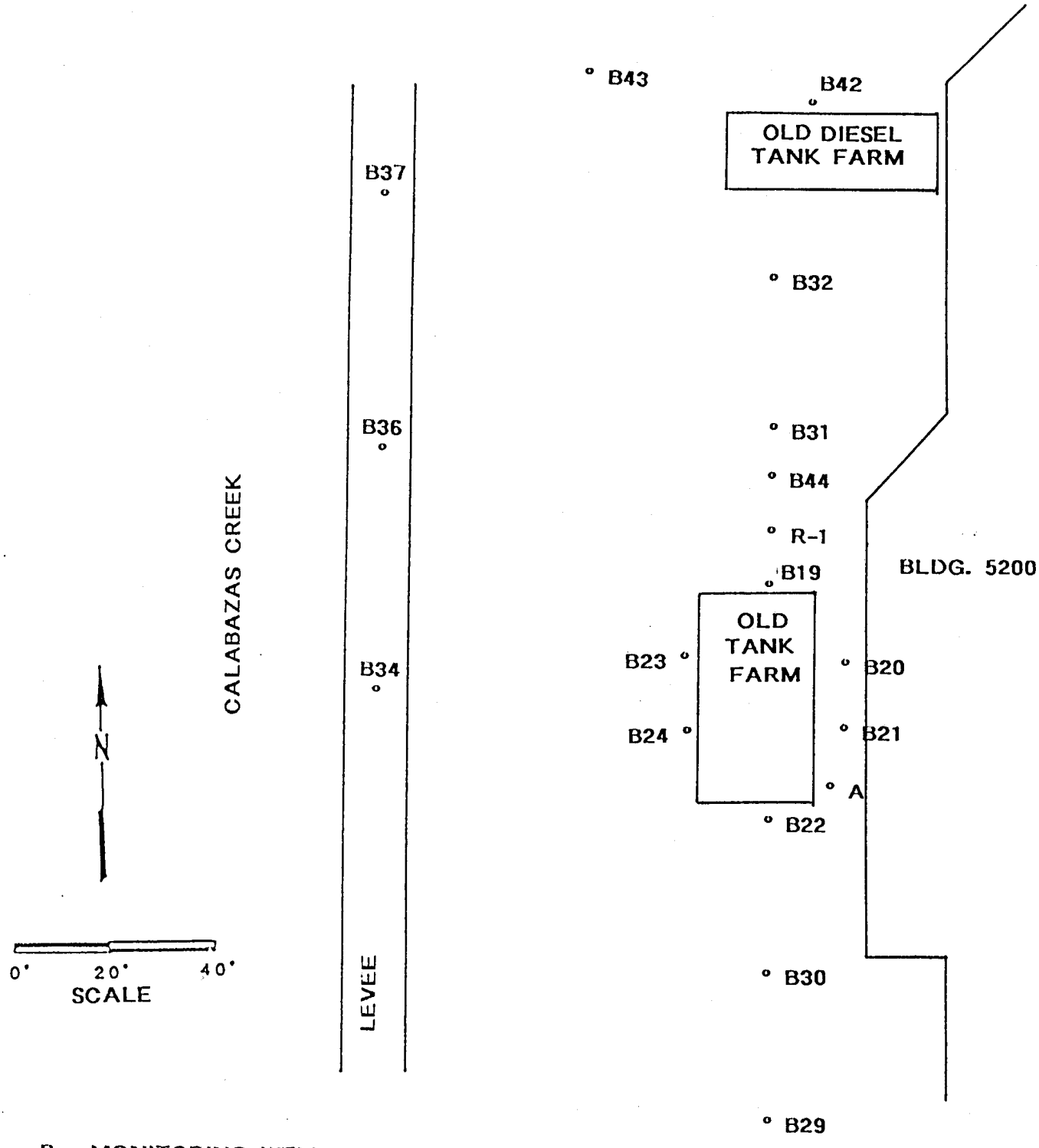


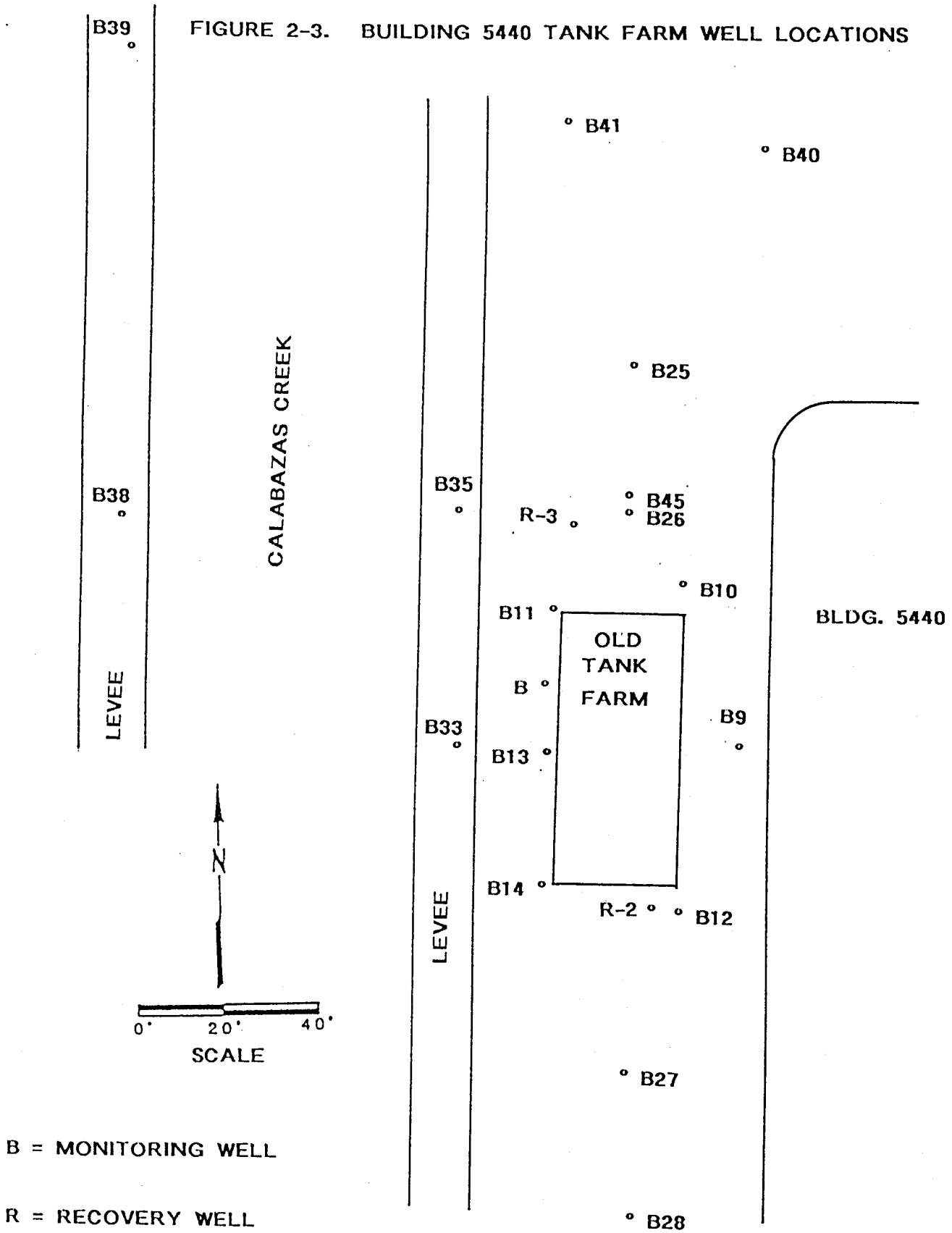
FIGURE 2-2. BUILDING 5200 TANK FARM WELL LOCATIONS



B = MONITORING WELL

R = RECOVERY WELL

FIGURE 2-3. BUILDING 5440 TANK FARM WELL LOCATIONS



B = MONITORING WELL

R = RECOVERY WELL

TABLE 2-1
UNDERGROUND STORAGE TANKS
at 5200 and 5440 PATRICK HENRY DRIVE

Location	Capacity	Substance Stored
5440	7300	MEK
5440	7300	MEK, CYCLO, DIGLYME
5440	10000	DIESEL
5440	10000	DIESEL
5200 South	7300	MEK
5200 South	7300	MEK
5200 South	7300	CYCLO
5200 South	7300	CYCLO, DIGLYME
5200 North	10000	DIESEL
5200 North	10000	DIESEL

NOTES:

MEK = methyl ethyl ketone (2-butanone)
CYCLO = cyclohexanone
DIGLYME = diethylene glycol dimethyl ether [BIS(2-methoxyethyl) ether]

Diesel tanks were fiberglass. Solvent tanks were wrapped carbon steel.

During September and October, 1988, all underground storage tanks were removed from the 5200 and 5440 facilities. One tank farm at the 5200 location consisted of 4 - 7,300 gallon solvent storage tanks. The other tank farm, at the 5200 location, approximately 100 feet north, consisted of 2 - 10,000 gallon diesel storage tanks. The tank farm at the 5440 facility consisted of 2 - 10,000 gallon diesel storage tanks and 2 - 7,300 gallon solvent storage tanks. Details of these tank removals and associated soil and water sampling are provided in the Tank Closure Report submitted to RWQCB in December, 1988.

Monitoring wells installed at the facility have been routinely sampled since 1982. Currently, Xidex samples groundwater every month from selected monitoring wells at the 5200 and 5440 PHD facilities and reports the analytical results of this sampling bi-monthly to the RWQCB, San Francisco Bay Region. By requirements of the RWQCB, Xidex is currently monitoring and reporting concentrations of isopropanol (isopropyl alcohol), methyl ethyl ketone (2-butanone), and acetone by Method 624 or 8240. Analytical methods include a complete scan for over 35 volatile organic compounds.

2.2 Hydrogeologic Setting

Extensive soil boring logs and monitoring well construction data have been reported from investigations at the 5200 and 5440 PHD sites. These investigations were conducted and reported by IT Enviroscience and McLaren Environmental Engineering in their 1982 and 1984 respective reports. The following is a summary of findings pertaining to the geology, soils, and groundwater investigations at the 5200 and 5440 PHD facilities and reports by the Santa Clara Valley Water District on the hydrogeology in the Santa Clara Valley.

2.2.1 Geology

The Santa Clara Valley is a large structural depression filled with alluvial (stream) and lacustrine (lake) deposits. Unconsolidated to semi-consolidated alluvial deposits comprise the major aquifers of the Santa Clara Valley. Tidal and marine deposits of the baylands are near the southern portions of the San Francisco Bay. Streams draining into the bay are

entrenched into the fine-grained bayland deposits. The maximum depth to bedrock in the Santa Clara Valley Basin is over 1,500 feet, although few aquifers are below 800 feet.

In the alluvial fans near the bay, clays become more predominant in the subsurface and numerous individual water-producing strata exist. These strata have been grouped into upper and lower aquifers. In general, water in the lower aquifer is confined under an extensive layer, which acts as a confining bed. Thus the area is sometimes termed the confined zone. Water in the upper aquifer may be confined or unconfined, depending on local conditions. In general, the groundwater in the upper aquifer is confined in the upper aquifer of the baylands, where numerous shallow confining beds are often predominant. These beds are locally termed the "clay cap". In addition, shallow perched groundwater is present locally, particularly in areas where the upper aquifer is confined. The perched water is usually found at depths of less than 20 feet below the land surface.

The Santa Clara Valley Water District has divided Santa Clara County into three geologic settings. These are 1) the confined zone of the Santa Clara Valley Basin, 2) the confined areas of the Llagas Basin, and 3) the unconfined areas of the Santa Clara Valley and Llagas Basins and the Coyote Basin. The Xidex facility is located near the center of the geologic setting described as the confined zone of the Santa Clara Valley Basin. The Santa Clara Valley Basin is bounded on the north by the alluvial plains of San Mateo County, south San Francisco Bay, and the Niles Cone area of Alameda County. It becomes narrower to the south-southeast and eventually ends at Coyote narrows.

The Santa Clara Valley Water District (SCVWD) has described the Santa Clara Valley Basin as having a broadly delineated upper aquifer and a lower confined aquifer. The upper and lower aquifers are separated by a major continuous aquitard which varies in thickness from 20 to 100 feet and normally occurs at a depth between 100-200 feet. All municipal wells in this geologic setting take water from the lower aquifers. Groundwater in the upper zone has been noted to be of variable quality and northern sections of the Santa Clara Valley Basin have been intruded by saltwater.

The 5200 and 5440 PHD sites are characterized by bayland clays and stream channel deposits. This Holocene alluvium consists of interlayered clay, silty clay, clay loam, and silty clay loam with minor lenses of sandy clay and traces of fine grained sand and gravel. Investigations at the Xidex facilities indicate the bayland clays extend to a depth greater than 40 feet. Stream channel deposits occur as thin, narrow beds of clayey sand, silty sand, sand, and gravelly sand. These stream channel deposits are not uncommon in alluvial basins such as the Santa Clara Valley and appear to have limited continuity, generally appearing as isolated buried stream channels. The 5200 tank farm areas appear to have isolated occurrences of stream channel deposits while the 5440 tank farm area is underlain by interbedded stream channel deposits. Aquifer pump data indicate these stream deposits are poorly connected, however, the degree of connection between these deposits is unknown. Detailed geological cross-sections, in the vicinity of the 5200 and 5440 tank farms were completed by McLaren Environmental Engineering in 1984 and 1985. These geologic cross-sections are presented in Appendix A of this report.

The principal drainage in Santa Clara Valley is Coyote Creek which flows south to north through Santa Clara Valley before entering San Francisco Bay. Coyote Creek is located approximately three miles east of the Xidex facilities. Other major drainages which pass through Santa Clara Valley in the vicinity of the Xidex facility are the Guadalupe River, Los Gatos Creek, and Calabazas Creek.

Principal recharge to the upper aquifer zone occurs by infiltration from surface sources and subsurface inflow. The lower aquifer zone occurs beneath a practically impermeable regional aquitard that occurs at depths ranging from about 100 feet in the forebay to about 150 to 250 feet in the interior portions of the basin and beneath San Francisco Bay (Wilson and Iwamura, 1989).

2.2.2 Soils

The 5200 and 5440 sites are both covered at the surface with a concrete pad surrounded by an asphalt parking area/access road. Subsurface investigations indicate that the underlying soils consist of silty clays, clay loam, clays, and some silty sand and gravelly clay lenses. Imported material used as backfill was encountered in a number of borings directly adjacent to the tank farms. This fill material was described as pea gravel or fine to medium sand.

The native silty clay and clays encountered were generally brown or grayish brown in color, moderately stiff, and plastic. Clay loams encountered were generally very dark grayish brown to olive, sticky, and slightly plastic. Sand and gravel lenses encountered were generally loose, poorly graded, saturated, and discontinuous in area extent. Soils were reported to range from dark gray to black near the surface to a lightly gray and more olive with depth. Soils were mottled throughout the profile with red and gray, red mottling decreasing with depth and gray mottling increasing with depth. Maximum depth of exploration at the sites was 40 feet.

Clay content in soils ranged from 35 to 50 percent except in a few thin lenses of silty sand, sand, or gravel. Sand content ranged from 5 to 20 percent and consisted of fine sand. Percent moisture in soils ranged from 20 to 33 percent in the saturated zone, and ranged to as low as 6 percent moisture near the ground surface. Moist consistency of clays and silty clays was very firm and wet consistency was very sticky and plastic. Sandier lenses were friable to loose, slightly sticky to non-sticky, and non-plastic.

In summary, the soils encountered to a depth of 40 feet generally consisted of unconsolidated alluvial and interfluvial deposits of silty clays, clays, and some sand and gravel lenses. These deposits along the alluvial fans were probably deposited during flood periods.

2.2.3 Groundwater

The 5200 and 5440 PHD sites are within the baylands of the northernmost portion of the Santa Clara Valley. This area of the Santa Clara Valley Basin is characterized as a multi-aquifer area where the shallow groundwater to a depth of 150 feet may be contaminated by sea water. The shallow groundwater is contaminated with sea water in portions of the baylands due to the inland intrusion of saltwater into the upper aquifer. The inland extent of intrusion east of Mountain View is approximately along the Bayshore Freeway (Iwamura, 1980). The Xidex facility is well within this saltwater intrusion area and shallow groundwater is most likely saline and of poor quality at the Xidex locations. This saltwater intrusion is the result of saltwaters incurring inland along streams as bayfront land areas become depressed below sea level by land subsidence. Local pumping from the upper aquifer also induced saltwater to seep into the shallow aquifer (Wilson and Iwamura, 1989). Water quality within this shallow aquifer is generally considered poor. There are no records of known groundwater wells used for water supply within a one mile radius of the Xidex facility.

Groundwater in the vicinity of the 5200 and 5440 tank farms is generally five to seven feet below the ground surface. Historical and current groundwater elevation data are presented in Table 2-2. A review of the potentiometric data at the 5200 and 5440 PHD sites indicates a groundwater potential gradient of approximately .002 feet per foot. Groundwater elevation contours constructed from groundwater elevation data show the groundwater gradient at both the 5200 and 5440 locations to vary from northeast to northwest but primarily the gradient is to the north. The groundwater elevations at both the 5200 and 5440 locations typically decrease by approximately 0.5 feet from the most southern to northern monitoring wells at each of the locations. The regional groundwater flow direction is also generally northward or toward San Francisco Bay.

Calabazas Creek, just west of the Xidex facilities, along with sloughs and lower reaches of other creeks in the area, experience water level fluctuations due to tidal action. Groundwater elevations and gradients are affected by tides at the Xidex wells (McLaren, 1984). During high tides,

Calabazas Creek is up to eight feet higher than wells around the tank farms, the groundwater gradient is from the creek towards the tank farms (west to east). During low tides, the gradient is from the tank farms to Calabazas Creek or in an east to west direction. Based on historical and current water level elevations, tidal influence appears to be minimal at the 5200 and 5440 locations, however, the 5440 location appears to be influenced by tidal action to a greater degree than the 5200 tank farm area. Analytical data supports this conclusion as historical data indicate a westerly migration of contaminants at the 5440 location to a greater distance than at the 5200 location. The hydraulic gradients are also affected during groundwater extraction and treatment system operations at both locations. Water level monitoring during pumping of recovery wells indicates a localized gradient toward the recovery wells. Several groundwater level studies have been conducted during pumping of extraction wells at both Xidex facilities. Two of these studies conducted by the Questa Engineering Corporation for Xidex are presented in Appendix B of this report. These reports discuss drawdown/recovery of the aquifer due to pumping of the recovery wells. Vertical hydraulic gradients have been shown to exist at both locations, however, water quality data discussed later in this report suggests downward flow is restricted. Wells screened to isolate deeper intervals have shown very little or no levels of contaminants.

Transmissivity of the soils in the area of the 5200 and 5440 facilities has been estimated to be 1,000 to 5,000 gallons per day, per foot. Aquifer testing indicates that the 5200 location has a calculated transmissivity in the range of 4,000 gpd/ft (McLaren, 1984). This supports the findings, as discussed in the geological section of this report, that soils around the 5440

TABLE 2-2
GROUNDWATER ELEVATION DATA
BUILDING 5200
Water Level (HSL) on Date

Well	Adjusted top of casing elevation	06-15-82	06-29-82	08-20-82	02-11-83	04-05-84	08-06-84	10-20-84	10-09-84	10-16-84	11-86	2-87	4-87	7-87	9-87	12-88	1-89	2-89	3-89	6-89	7-89
R-1											0.62	0.82	0.55	0.96	1.05						
B-15	6.54	0.52	1.11																		
B-16	6.54	0.52	1.16																		
B-17	6.83	0.71	1.17																		
B-18	7.59	0.63	1.07																		
B-19	7.87	1.01	1.39	1.22	2.19		1.28	1.28	1.33		0.61	0.73	0.58	1.11	1.32	0.80	0.49	0.76	0.84	0.58	0.80
B-20	8.07	1.05	1.22	1.20	2.36		0.87	0.57	1.26												
B-21	7.71	1.36	1.22	1.20	2.40		0.71	1.21	1.28			0.72	0.52	1.09	1.13			0.78			
B-22	7.85	1.04	1.27	1.28	2.47	0.85	1.35	0.85	1.32		0.68	0.81	0.69	1.15	1.24						
B-23	7.74		1.30	1.26	2.38		1.24	1.24	1.25		0.28	0.74	0.52	1.06	1.16		0.86		-0.02		
B-24	7.53	1.01	1.24	1.26	2.47		1.03	1.03	1.30		0.59	0.76	0.55	1.09	1.13						
B-29	7.50			1.38	2.58	0.50	1.00	1.00	1.42		0.58	0.91		0.95	1.25				0.92		
B-30	7.63			1.33	2.57	0.63	1.13	0.63	1.41		0.73	0.88		1.19	1.22	0.85	0.82		0.92		
B-31	6.98			1.12	2.31	0.28	0.98	0.48	1.20		0.49			0.61	0.99	0.66	0.59	0.61	0.75	0.46	0.68
B-32	6.85			1.07	2.20	0.45	0.85	0.85	1.16		0.44	0.54	0.78		0.91	0.62	0.52		0.66		
B-34	15.72			1.29		0.28	0.72	0.72	1.37		0.26	0.82		1.03	1.09		1.02		1.00		
B-36	15.43			1.12		0.03	0.63	0.63	1.30		0.06	0.60		0.90	-0.06		0.87		0.90		
A	8.37				1.95		0.57	0.87								0.88					
B-37	15.34			1.04			0.34	0.34	1.26		0.09	0.59		0.72	0.93	0.77	0.84		0.78		
B-42	7.48									1.12							0.42				
B-43	7.62									1.20						0.68	0.61				

CREEK water elevation 4.18

TABLE 2-2 continued
GROUNDWATER ELEVATION DATA
BUILDING 5440
Water Level (HSL) on Date

Well	Adjusted top of casing elevation	06-15-82	06-29-82	08-20-82	02-11-83	04-05-84	08-06-84	10-20-84	10-09-84	10-16-84	11-86	2-87	4-87	7-87	9-87	12-88	1-89	2-89	3-89	6-89	7-89
R-2												-1.25	-1.66	-1.20	-0.93						
R-3												-1.75	-2.03	-1.76	-1.35						
B-9	5.96	-1.03	-0.87	-1.12	0.69	-1.34	-1.04	-1.04	-0.60		-1.45	-1.45	-1.84	-1.27	-0.89		-1.18	-1.08	-1.02	-0.95	-0.88
B-10	5.68	-1.12	-0.98	-1.09	0.93		-1.32	-0.82	-0.57		-1.43	-1.43	-1.87	-1.28	-0.89		-1.16		-0.99		
B-11	6.36	-1.16	-0.89	-1.10	0.88	-0.84	-1.44	-0.64	-0.53		-1.73		-1.66	-1.31	-0.97		-1.19	-0.71	-1.05	-0.99	-0.86
B-12	6.18	-1.19	-0.89	-1.08	0.70	-1.22	-1.82	-0.82	-0.47		-1.44	-1.38	-1.73	-1.22	-0.92					-0.96	
B-13	6.25	-1.43	-0.84	-1.09	0.83	-1.15	-1.55	-0.75	-0.55												-1.12
B-14	6.85	-1.15	-0.98	-1.09	0.70		-1.35	-1.15	-0.42		-1.42	-1.47	-1.59	-1.28	-0.93						-0.72
B-25	5.41			-1.52	0.28	-1.89	-2.09	-1.59	-0.94		-1.96	-1.95	-2.12	-1.82	-1.49		-1.55	-1.54	-1.46	-1.70	-1.17
B-26	5.80			-1.48	0.36	-1.40	-1.70	-1.70	-0.87		-1.78		-1.86	-1.72	-1.28		-1.41	-1.37	-1.35	-1.30	-1.09
B-27	6.56			-1.02	0.63	-0.74	-1.44	-0.44	-0.39		-1.38	-1.36	-1.16	-1.11	-0.84		-1.10				-0.84
B-28	6.86			-0.98		-1.14	-1.14	-0.14	-0.35												-0.81
B-33	15.15			-1.12		-1.15	-2.05	-1.35	-0.70			-1.98	-1.88	-1.49	-1.11		-1.43	-1.29	-1.23	-1.16	-0.95
B-35	15.00			-1.33			-1.50	-2.00	-0.84		-1.88	-1.99	-1.53	-1.47	-1.49		-1.63	-1.50	-1.40	-1.21	0.09
B	7.00				0.30	-0.80	-1.00	-1.50													
B-38	15.28									-0.83											
B-39	15.32									-0.80	-2.25	-1.98	-2.01		-1.50						
B-40	6.44										-1.73	-2.00	-2.16		-1.48		-1.51		-1.55		-1.12
B-41	6.65																				

location contain more sand, or interbedded layers of sand, than the area around the 5200 location. Aquifer test data, however, does not indicate any major differences in transmissivity within the area of influence, 100 feet, of pumping wells at each of the sites.

After sustained pumping of extraction wells, no preferential flow paths from any of the monitoring wells were observed (drawdown was similar in wells of similar distance from the recovery wells). Recovery wells at both locations are hydraulically connected through sand lenses to the sand/gravel backfill (Mclaren, 1984). During extraction and pump tests the recovery wells probably drew most water from the sandy tank farm backfill resulting in higher than expected transmissivity (1,600 and 4,000 gpd/ft) than would be expected for the clayey soils at these sites.

Groundwater flow velocities at the 5200 location are estimated at 13 feet per year, and at the 5440 location as 122 feet per year (McLaren, 1984). These velocities are not consistent with the observed contaminant migration at the sites, again supporting a lower transmissivity for the clayey soils around both sites. Groundwater quality data indicates groundwater flow rates are considerably less based on the areal extent of detected contaminants. The extent and nature of contaminants at the Xidex sites will be addressed in the following section of this report.

3.0 DATA EVALUATION

Extensive groundwater sampling has been conducted at the 5200 and 5440 sites since 1982 as part of a program involving approximately 40 monitoring wells. In addition, limited soil sampling data has been collected during soil borings and monitoring well construction. This section of the report presents the historical and current extent and nature of soil and groundwater contamination at the 5200 and 5440 sites. Sections 3.1 and 3.2 present the results of soil and groundwater sampling. Section 3.3 discusses the interim cleanup measures at the sites and provides an evaluation of effectiveness. Section 3.4 summarizes the current conditions at the sites and extent of contaminant migration.

3.1 Soil Sampling Data

The first known soil sampling at the Xidex facility was conducted in March 1983, during the construction of monitoring wells A and B. At the well A location, adjacent to the 5200 tank farm, MEK was detected in soils at a depth of 10 feet at concentrations of 0.1 ppm. No other samples from various depths had any MEK above detection limits and no cyclohexanone or isopropanol were detected in any soil samples collected at depths of 10, 20, 30, 35, and 40 feet. Well B, adjacent to the 5440 tank farm, had MEK concentrations in soils at 200 ppm, 50 ppm, and 0.1 ppm at 10, 15, and 20 feet in depth respectively. Low concentrations, less than 1 ppm, of cyclohexanone and isopropanol were detected in soil samples from depths of 10 and 15 feet. No contaminants were detected below a depth of 20 feet.

Additional soil sampling was conducted in October 1984 during monitoring well construction by McLaren Environmental Engineering. Soil samples were collected at various depths during the drilling of four monitoring wells, B-40 through B-43. The 22 soil samples collected during the drilling of B-40, B-41, B-42, and B-43 were analyzed for methyl ethyl ketone, isopropanol, and cyclohexanone. None of the three compounds were detected in any of the 22 soil samples at or above the detection limit of 1 ppm. Locations of these wells are depicted on Figures 2-2 and 2-3. In addition, 14 soil samples were

collected during the drilling of monitoring wells B-44 and B-45 in February 1985. Table 3-1 presents the results of the soil sample analyses from samples collected during the drilling of Wells B-40 through B-45.

The sampling data from February, 1985 shows that the soils at B-44 and B-45 had contaminants in levels above detection limits. In both samples, methyl ethyl ketone, isopropanol, acetone, and 2-pentanone were detected in soils primarily at depths from 10 feet to 20 feet below the ground surface. well B-44 is located approximately 25 feet north of the tank farm at 5200 South, and B-45 is located approximately 25 feet north of the tank farm at 5440.

Additional soil sampling was conducted during the tank removals at the 5200 and 5440 facilities during September and October 1988. At the 5200 South tank farm location 21 soil samples were collected from backfill, sidewalls, and at the base of the excavated pit. All samples were analyzed for methyl ethyl ketone, isopropanol, acetone, cyclohexanone, and diglyme (diethylene glycol dimethyl ether). Compounds and the range of concentrations that were detected are as follows:

5200 South Tank Farm
Concentrations of Compounds found in Soil
during Removal of Tanks, September 1988

Methyl Ethyl Ketone (MEK)	.040 - .590 ppm
Acetone	.006 - .170 ppm
Isopropanol	ND* - .021 ppm
Cyclohexanone	ND
Diglyme	ND

* ND - Not Detected

At the 5200 North tank farm location, six soil samples were collected during the October 1988 tank removals. These samples were analyzed for diesel and concentrations ranged from 2 to 200 ppm in the sidewall soils of the excavated pit. These concentrations of diesel were in soil samples collected at the soil/water interface of the excavated pit and may be higher than actual

TABLE 3-1
SOIL SAMPLING DATA
OCTOBER 1984 AND FEBRUARY 1985

	5200 LOCATION						5440 LOCATION					
Well #	B-42	B-43	B-44				B-40	B-41	B-45			
Analysis	MEK,IPA,CHA	MEK,IPA,CHA	MEK	IPA	CHA	ACE	MEK,IPA,CHA	MEK,IPA,CHA	MEK	IPA	CHA	ACE
Depth (ft)												
0.5-1.0		<1										
1.0-1.5		<1										
1.5-2.0	<1											
2.5-3.0			<1	<10	<1	<1	<1		<1	<10	<1	<1
4.5-5.0			31	20	<1	13			<1	<10	<1	<1
5.5-6.0	<1						<1	<1				
9.5-10.0			480	20-200	<1	43			230	40	<1	23
10.5-11.0	<1	<1					<1	<1				
14.5-15.0			2	<10	<1	2			380	26	<1	22
15.5-16.0	<1	<1					<1	<1				
19.0-19.5	<1	<1	<1	<10	<1	<1	<1	<1	550	36	1	22
20.5-21.0								<1				
24.0-24.5			<1	<10	<1	<1			4	<10	<1	<1
29.0-29.5			<1	<10	<1	<1			4	<10	<1	<1

NOTE: All results in ppm
MEK=Methyl ethyl ketone
IPA=isopropanol
CHA=cyclohexanone
ACE=acetone

diesel concentrations in surrounding soils. These samples may have been in contact with water in the excavated pit which contained diesel at levels reported as high as 2,500 ppm.

During the tank removal at the 5440 site in September 1988, 16 soil samples were collected from backfill and sidewall soils at the soil/water interface of the excavated pit. The compounds and range of concentration that were detected are as follows:

5440 Tank Farm
Concentrations of Compounds found in Soil
during Removal of Tanks, September 1988

Methyl Ethyl Ketone (MEK)	ND* - .250 ppm
Acetone	ND - .150 ppm
Isopropanol	ND
Cyclohexanone	ND - .091 ppm
Diglyme	ND - 10.6 ppm
Diesel	.250 - 75 ppm

* ND - Not Detected

3.2 Groundwater Sampling Data

The first groundwater samples were collected in August 1982 after the construction of monitoring wells at the 5200 and 5440 facilities. Analyses confirmed the presence of methyl ethyl ketone, isopropanol, and cyclohexanone at both the 5200 and 5440 facilities. Extensive groundwater sampling has taken place at the Xidex facilities since that time. Separate discussion of groundwater sampling data at the 5200 and 5400 facilities follows.

5200 Groundwater Sampling Data

Initial groundwater sampling in August 1982 confirmed the presence of methyl ethyl ketone at maximum concentrations of 24,300 ppm from well B-23. Other wells adjacent to the 5200 solvent tank farm are B-29, B-20, B-21, B-22, and B-24 with MEK concentrations (in August, 1982) ranging from 220 ppm to

17,000 ppm. Locations of these wells are depicted in Figure 2-2. Concentrations of methyl ethyl ketone in well B-31, approximately 30 feet north of the solvent tank farm at 1,250 ppm indicated that MEK had migrated downgradient from the source to this well about 30 feet north. Isopropanol was also detected in wells surrounding the tank farm at concentrations ranging from 10 to 45 ppm. Cyclohexanone, cellosolve (2-ethoxyethanol), and diesel were not detected at detection limits of 1 ppm. Tables 3-2 and 3-3 present the results of groundwater analysis from 1982 to present (July 1989) for methyl ethyl ketone, acetone, and isopropanol respectively.

The chemical concentrations at the monitoring wells immediately adjacent to the 5200 tank farm and downgradient (north) have steadily declined from August 1982 until June 1987. Since July 1987, all groundwater analyses, as depicted in Tables 3-2 and 3-3 have shown no concentrations of MEK, acetone, isopropanol, cyclohexanone, and diesel above detection limits. A groundwater extraction and treatment system had been operating near the tank farm since 1985 and is one mechanism responsible for the decline in contaminant concentrations at the site.

The extent of contamination based on analytical sampling data has been limited to the area immediately adjacent to the 5200 South tank farm and northerly, downgradient, approximately 35 feet. One analysis of well B-32, approximately 60 feet north of the 5200 South tank farm, showed MEK levels at 1.0 ppm, which was the detection limit. Because prior and past sampling of well B-32 indicated no levels above detection limits it can not be substantiated that the contaminant plume reached 60 feet downgradient. This one reading above non-detection levels at well B-32 is probably due to contamination of sampling equipment or laboratory cross-contamination.

Table 3-4 presents monitoring well depths and screen intervals for the monitoring and recovery wells at the 5200 and 5440 locations. One of the deepest wells in which MEK was detected at the 5200 site was in well B-44 which is screened from 25 to 30 feet and has a total depth of 30 feet. This well showed concentrations of MEK (180 ppm) on only one sampling date, February 1985. All other samplings of well B-44 have shown no levels of MEK above detection limits. Well A, which is screened from 25 to 25 feet, showed

Table 3-2. Groundwater Monitoring Data
Concentration Methyl Ethyl Ketone (MEK)
5200 Patrick Henry Drive

SAMPLING DATE	WELLS TESTED																
	B-19	B-20	B-21	B-22	B-23	B-24	B-29	B-30	B-31	B-32	B-34	B-36	B-37	B-42	B-43	B-44	R-1
AUG 82	6,300	220	17,000	1,680	24,300	4,100	<1	<1	1,250	<1	<1	<1	<1				
AUG 83			3,300	40	3,400					1.0		25					7,500
APR 84				<1			<1	<1	1,250	<1	<1	<1					
AUG 84	60	<1	5	<1		<1	<1	<1	620	<1	<1	<1	<1	<1	<1		
DEC 84	415		260						1,200								
FEB 85									930							180	
JUL 85	52								450	ND							
OCT 85																	
JUN 86	39								4.1								
JUL 86	2.9								1.4								
AUG 86	6.9								1.5								
NOV 86	62								<0.1	0.1						<0.1	0.3
DEC 86	110								<0.1								
DEC 86	142								<0.1								
JAN 87	61								ND								
FEB 87	100								ND	ND						ND	ND
MAR 87	66								ND								
APR 87	56								<1								<0.5
MAY 87	ND								ND								<0.5
JUN 87	7.7								ND								
JUL 87	ND								ND	ND							<0.5
AUG 87	ND								ND								
SEP 87	ND								ND								<0.1
OCT 87	<1.0								<1								
NOV 87	<1.0								<1								
DEC 87	<0.5								<0.5								
JAN 88	ND								ND								
FEB 88	<4								<4	<4							
MAR 88	ND								ND								

MEK concentration

	'82 initial	'84 final
B-21	17,000 ppm	260 ppm
B-24	4,100 "	'84 <1 "
B-23	24,300 "	'83 3,400"

Monitoring terminated prematurely at the above wells.

Continued on following page..

Table 3-2. Groundwater Monitoring Data (continued)
Concentration Methyl Ethyl Ketone (MEK)
5200 Patrick Henry Drive

SAMPLING DATE	WELLS TESTED																
	B-19	B-20	B-21	B-22	B-23	B-24	B-29	B-30	B-31	B-32	B-34	B-36	B-37	B-42	B-43	B-44	R-1
APR 88	ND								ND								
MAY 88	ND								ND								
JUN 88	ND								ND								
JUL 88	ND								ND								
AUG 88	ND								ND								
SEP 88	ND								ND								
OCT 88	ND								ND								
NOV 88	ND								<.020	ND						ND	
DEC 88	<.020	<.020							<.020	<.020						<.020	
JAN 89	<.020								<.020	<.020						<.020	
FEB 89	<.020								<.020							ND	
MAR 89	<.020								<.020								
APR 89	<.020								<.020	<.020						<.020	
MAY 89	<.020								<.020								
JUN 89	<.020								<.020							<.020	
JUL 89	<.020								<.020	<.020							

Table 3-3. Groundwater Monitoring Data
Concentrations of Acetone and Isopropanol
5200 Patrick Henry

SAMPLING	WELLS TESTED											
	ACETONE						ISOPROPANOL					
DATE	B-19	B-20	B-31	B-32	B-44	R-1	B-19	B-20	B-31	B-32	B-44	R-1
AUG 82							15	10				
FEB 85					20				100		70	
JUN 86							<0.4		<0.4			
AUG 86							<0.4		<0.4			
NOV 86	7.5	<0.4		<0.4	<0.4	<0.4	4.6		<0.4	<0.4	<0.4	<0.4
DEC 86	18.3		<0.4				6.6		<0.4			
APR 87	13	<1				<0.5	9.0		<1			<0.5
MAY 87						<0.5						<0.5
JUL 87						<0.5						<0.5
SEP 87						<0.1						<0.1
OCT 87	<1.0						<1.0		<1.0			
NOV 87	<1.0						<1.0		<1.0			
DEC 87	<0.5						<0.5		<0.5			
FEB 88	<2			<2			<2		<2	<2		
DEC 88	<.020	<.020	<.020	<.020	<.020		<.100	<.100	<.100	<.100	<.100	
JAN 89	<.020	<.020		<.020	<.020		<.100		<.100	<.100	<.100	
FEB 89	<.020	<.020					<.100		<.100			
MAR 89	<.020	<.020					<.100		<.100			
APR 89	<.020		<.020	<.020	<.020		<.100		<.100	<.100	<.100	
MAY 89	<.020		<.020				<.100		<.100			
JUN 89	<.020	<.020			<.020		<.100		<.100		<.100	
JUL 89	<.020	<.020		<.020			<.100		<.100	<.100		

TABLE 3-4 MONITORING WELL DATA

5200 Tank Farm

Well Number	Total Depth (ft)	Screened Intervals (ft)	Well Head Elevation (ft)
R-1	30	10-30	4.99
B-15	20	3-20	6.50
B-16	20	3-20	
B-17	20	3-20	
B-18	21.5	3-20	
B-19	21.5	3-20	7.86
B-20	20	3-20	
B-21	20	3-20	8.02
B-22	20	3-20	7.90
B-23	20	3-20	7.76
B-24	20	3-20	7.53
B-29	20	3-20	7.69
B-30	20	3-20	7.63
B-31	25	3-25	6.96
B-32	20	3-20	6.82
B-34	30	10-30	16.12
B-36	30	10-30	15.85
B-37	30	10-30	15.67
B-42	20	5-20	
B-43	20	5-20	
B-44	30	25-30	
A	35	25-35	

5440 Tank Farm

Well Number	Total Depth (ft)	Screened Intervals (ft)	Well Head Elevation (ft)
R-2	30	10-30	3.92
R-3	40	10-40	5.69
B-9	22	2-22	5.97
B-10	20	3-20	5.99
B-11	20	5-20	6.36
B-12	31.5	3-30	6.23
B-13	20	3-20	
B-14	30	3-30	6.91
B-25	20	3-20	5.40
B-26	20	3-20	5.80
B-27	20	3-20	6.56
B-28	20	3-20	6.86
B-33	30	10-30	15.12
B-35	30	10-30	15.22
B-38	40	10-40	
B-39	40	10-40	
B-40	20	5-20	6.48
B-41	21.5	5-20	6.76
B-45	25	20-25	
B	40	30-40	

maximum MEK concentrations of 3 ppm in August, 1983. In August 1984, this well had no levels of MEK present above the detection limit.

Groundwater sampling in December 1988 around the 5200 North diesel tank farm showed no levels of MEK, acetone, isopropanol, or diesel above detection limits. Wells sampled in the diesel tank farm area included B-32, B-37, B-42, and B-43. The results of the December 1988 analyses, along with previous sampling results, indicate that contaminants are not present in groundwater in the vicinity of either the 5200 South or 5200 North tank farms. In addition, historical sampling gives no indication that contaminants have migrated from the source. Figure 3-1 presents the former contaminant plume boundary based on groundwater sampling data from prior years. Since July 1987, no contaminants have been detected above detection limits.

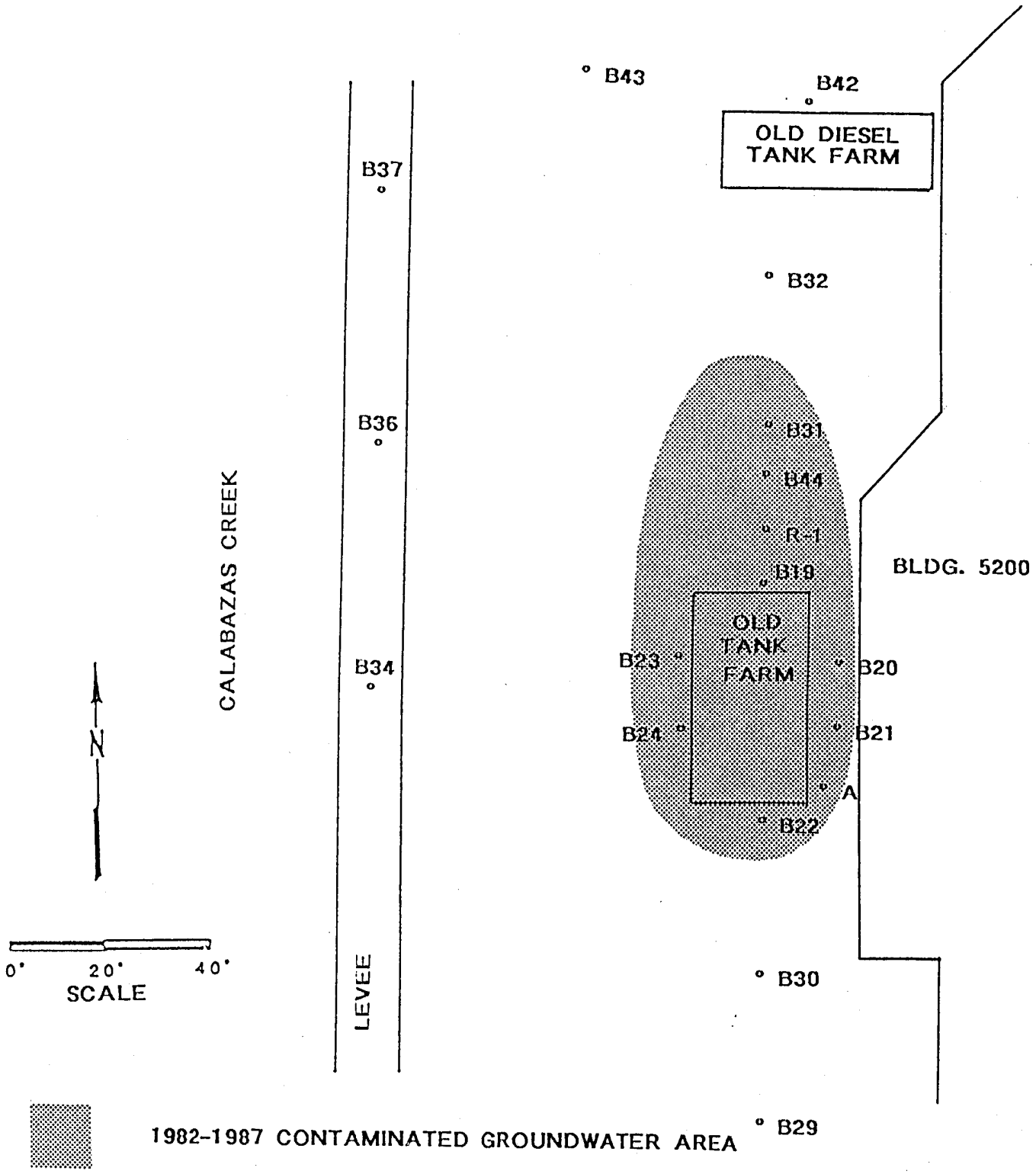
5440 Groundwater Sampling Data

Initial groundwater sampling in August 1982 confirmed the presence of MEK, isopropanol, cellosolve (2-ethoxyethanol), cyclohexanone, at significant levels, and diesel at the detection limit of 1 ppm, in the immediate vicinity of the 5440 tank farms. Maximum levels of MEK at 49,000 ppm; isopropanol at 700 ppm; cellosolve (2-ethoxyethanol) at 1,200 ppm; and cyclohexanone at 440 ppm, were detected in well B-12. Tables 3-5 and 3-6 present the sampling data from the initial August 1982 sampling to the present monthly monitoring for MEK, acetone, and isopropanol. Sampling data indicate the contaminant groundwater plume is limited to approximately 20 feet to the south, east, and west; and 30 feet to the north, downgradient from the 5440 tank farm. Contaminants have been detected in recovery well R-2 which is 40 feet deep and screened from 10 to 40 feet. Well B which is screened at a depth of 30 to 40 feet had no levels of MEK above detection limits during two samplings in 1984. During this period, shallower wells with initial high levels of MEK (B-9 and B-11) were rapidly decreasing in MEK concentrations. This is a strong indication that downward migration of contaminants is extremely limited.

FIGURE 3-1.

APPROXIMATE EXTENT OF GROUNDWATER CONTAMINATION

AT BUILDING 5200 TANK FARMS



NOTE: 1987-JULY 1989 SAMPLING INDICATES NO GROUNDWATER CONTAMINANTS ABOVE DETECTION LEVELS

Table 3-5. Groundwater Monitoring Data
Concentration Methyl Ethyl Ketone (MEK)
5440 Patrick Henry Drive

SAMPLING DATE	WELLS TESTED														
	B-9	B-10	B-11	B-12	B-13	B-14	B-25	B-26	B-27	B-33	B-35	B-41	B-45	R-2	R-3
AUG 82	13,500	12,500	18,500	49,000	17,200	7,000	<1	700	<1	<1	<1				
AUG 83			11,000	800		64		7,000		10,000				770	
APR 84	<1		5,000	2	9	14	<1	4,000	<1	4,000					
AUG 84	28	<1	6,000	<1	9		<1	3,100	<1	1,700	32				
DEC 84			2,900				ND	1,900		590	480	ND			
FEB 85			1,200									<1	1,300		
JUL 85			3,700				0.60	1,500		200	3,600				
OCT 85			2,700					2,400							100
JUN 86	<0.1		235	<0.1			<0.1	685		13.50					
JUL 86	3.9		250	3.00			<0.1	1,100		12.00					
AUG 86	<0.1		445	0.10			1	136		11.30					
NOV 86			321				<0.1	1,492		1.3	1,712	44	1,500		76
DEC 86			290				<0.1	480		<0.1	1,500				
DEC 86			123				<0.1	660		<0.1	890				
JAN 87			200				ND	420		ND	930				
FEB 87			150				ND	960		ND	650	ND	1,500	25	70
MAR 87			170				ND	460		ND	530				
APR 87			130				<1	340		<1	220			13.40	44
MAY 87			150				ND	1,100			130	ND		22.00	59
JUN 87			110				ND	360		ND	130		860	<0.5	
JUL 87			46				ND	590		ND	52				24
AUG 87			4.40				ND	220		ND	ND				22.70
SEP 87			10				ND	280		ND	12			6.60	
OCT 87			87				<1.0	300		<1.0	30	<1.0	890		
NOV 87			68				<1.0	390		<1.0	18				
DEC 87			52				<0.5	463		<0.5	3.20				
JAN 88			40				ND	190			ND				
FEB 88			56				<4	300		<4	<4				
MAR 88			35					330			ND				

Continued on following page..

Table 3-5. Groundwater Monitoring Data (continued)
Concentration Methyl Ethyl Ketone (MEK)
5440 Patrick Henry Drive

SAMPLING DATE	WELLS TESTED														
	B-9	B-10	B-11	B-12	B-13	B-14	B-25	B-26	B-27	B-33	B-35	B-41	B-45	R-2	R-3
APR 88			45				ND	370		ND	ND		1,000		
MAY 88			26					190		ND	ND	ND			
JUN 88			21				ND	240		ND	ND				
JUL 88			15				ND	280		ND	ND				
AUG 88			7				ND	81		ND	ND				
SEP 88			20				ND	42		ND	ND				
OCT 88			4				ND	10		ND	ND				
NOV 88			1.50				ND	0.730		ND	0.005				
DEC 88															
JAN 89	91	<.020	45.00				<.020	1.10	<.020	<.020	<.020	<.020	3.20		
FEB 89	120		<.020				<.020	0.13		<.020	<.020		0.230		
MAR 89	0.149		2.00				<.020	2.40		<.020	<.020	ND	0.920	0.58	0.28
APR 89	82		4.90				<.020	1.10		<.020	<.020		2.70		
MAY 89	132		2.20				<.020	2.40		<.020	<.020				
JUN 89	70		5.20				<.020	1.10		<.020	<.020		1.20		
JUL 89	64		<1					0.550		<.020	<.020	<.020	0.14		

Table 3-6. Groundwater Monitoring Data
Concentrations of Acetone and Isopropanol
5440 Patrick Henry

WELLS TESTED

SAMPLING DATE	ACETONE											ISOPROPANOL									
	B-9	B-10	B-11	B-25	B-26	B-33	B-35	B-41	B-45	R-2	R-3	B-9	B-10	B-11	B-25	B-26	B-33	B-35	B-41	B-45	R-2	R-3
AUG 82											2.8	120	100	160								
FEB 85														40					<1			
JUN 86												<0.4		5.7	<0.4	206	3.5					
AUG 86												<0.4		21.6	<0.4	362	3.7					
NOV 86			43	<0.4	34	10.6	228	<0.4	125					13	<0.4	34	<0.4	26	<0.4	68		2.8
DEC 86			37	<0.4	88	<0.4	24							25	<0.4	41	<0.4	150				
APR 87			43	<1	34	<1	39			0.8	<0.5			12	<1	34	<1	6.7			<0.5	<0.5
MAY 87										0.7	<0.5										<0.5	<0.5
JUL 87										<0.5	<0.5										<0.5	<0.5
SEP 87										<0.1	<0.1										<0.1	<0.1
OCT 87			21	<1.0	19	<1.0	7.6	<1.0	68					5	<1.0	19	<1.0	<1.0	<1.0	24		
NOV 87			17	<1.0	14	<1.0	3.7							4.7	<1.0	14	<1.0	<1.0				
DEC 87			10.5	<0.5	15.9	<0.5	<0.5							3	<0.5	15.9	<0.5	<0.5				
FEB 88			17	<2	8.1	<2	<2							2.3	<2	8.1	<2	<2				
JAN 89	49	<.020	7.1	<.020	0.34	<.020	<.020	<.020	0.82			35	<.100	15	<.100	0.34	<.100	<.100	<.100	0.53		
FEB 89	27		<.020	<.020	<.100	<.020	<.020		<.020			13		2.1	<.100	<.100	<.100	<.100		<.100		
MAR 89	0.034		9.3	<.020	<.100	<.020	<.020		0.150			<.100		<.100	<.100	<.100	<.100	<.100		<.100		
APR 89	26		13	<.020	<.220	0.071		<.020	0.280			11		<2.0	<.100	<.100	<.100		<.100	<.100		
MAY 89	32		9.5	<.020	<.660	<.020	<.020					<1.00		<.100	<.100	<.100	<.100	<.100				
JUN 89	9.8		4.7	<.020	<2	<.020	<.020		0.101			<25		<1	<.100	<2	<.100	<.100		<.500		
JUL 89	13		2.8	<.020	<.100	<.020	<.020	<.020	0.034			<2		<5	<.100	<1.00	<.100	<.100		<.100		

Restriction of flows in the vertical direction is consistent with the observed presence of a high percentage of clays in the subsurface.

Contaminant levels have steadily declined at this location in a similar manner as levels decreased at the 5200 location. Although some fluctuations have occurred over the sampling period, the general trend is a steady reduction in contaminants detected in groundwater. Again, these contaminant levels have decreased during periods before, during, and after the groundwater extraction and treatment system was operating. Recent sampling has determined that only wells B-9, B-26, and B-45 still contain MEK in levels above detection limits, and only levels of MEK in well B-9 are above 1 ppm.

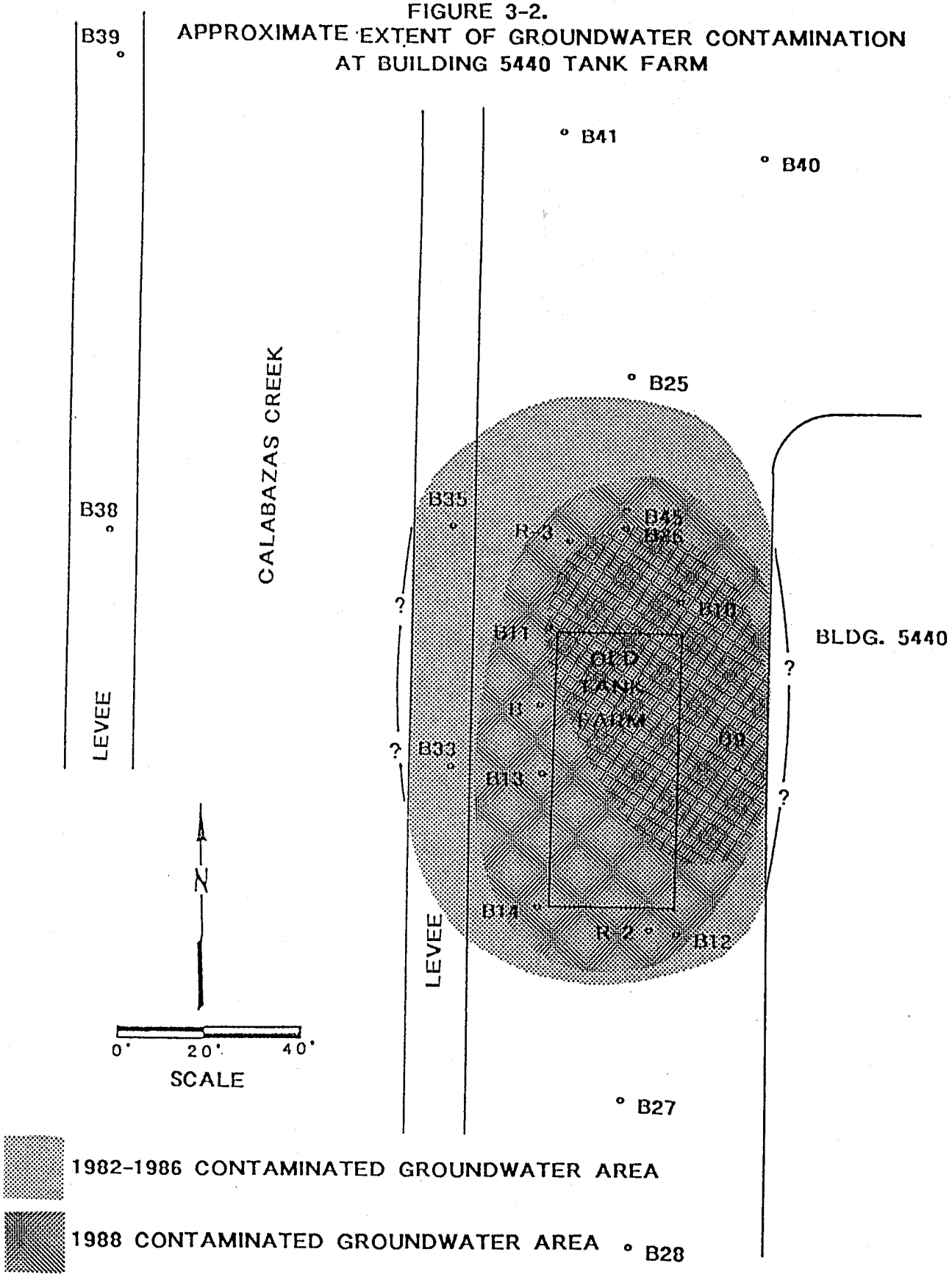
Acetone in the July 1989 sampling was detected in Wells B-9 at 13 ppm; B-11 at 2.8 ppm; B-26 at .100 ppm; and B-45 at .034 ppm. No isopropanol, cellosolve, or cyclohexanone have been detected above detection limits in any recent samples. Figure 3-2 presents the contaminant plume boundary based on groundwater sampling and depicts both former and current plume boundaries based on groundwater sampling data.

3.3 Interim Cleanup Measures

In March 1986, Xidex conducted the startup and testing of an extraction and groundwater treatment system at the 5200 and 5440 facilities. The system consists of three extraction wells and an air stripper. Groundwater was extracted from recovery wells R-1, R-2, and R-3. Recovery well R-1 is located just north of 5200 South tank farm, and recovery wells R-2 and R-3 are just south and north respectively from the 5440 tank farm. Locations of these wells are depicted on the well location sketches, Figure 2-2 and Figure 2-3.

The purpose of this extraction and treatment system is to remove contaminants, primarily MEK, present in groundwater at the 5200 and 5440 tank farm locations. After startup, testing, and optimization of this system in 1986, the air stripper was found to significantly reduce MEK concentrations with efficiencies as high as 90%. Treated effluent from the air stripper was routed to an air scrubber at Xidex's 5440 facility before being discharged to the Santa Clara sanitary sewer system. This discharge was authorized by the San Jose/Santa Clara Department of Water Pollution Control.

FIGURE 3-2.
APPROXIMATE EXTENT OF GROUNDWATER CONTAMINATION
AT BUILDING 5440 TANK FARM



The extraction and treatment system operated from March 1986 until mid-1988. During that period the system operated continuously except for short periods of time for maintenance and repair operations. The system proved effective in reducing contaminants present in the extracted groundwater and is estimated to have treated approximately 4 million gallons of groundwater. Contaminant levels at the 5200 location during this time period dropped to non-detect levels. At the 5440 location levels of contaminants also steadily decreased. Contamination in several monitoring wells at the 5440 location improved to "non-detect" levels during the treatment period. Tables 3-2, 3-3, 3-5, and 3-6 present sampling results and depict the steady decline in contaminant levels at the 5200 and 5440 tank farm locations.

The extraction and treatment system has not been operating for approximately one year due to air quality permitting issues. In March 1989, Xidex conducted a pump test with groundwater sampling utilizing recovery wells R-2 and R-3 at the 5440 location. Results indicate that it may be possible to use extracted groundwater directly as process water for the air scrubber, bypassing the air stripper, and still meet sewer system influent limits. Xidex is currently pursuing options for extracting groundwater and treating and/or discharging groundwater to the air scrubber at Building 5440.

3.4 Current Conditions

This section of the report will summarize the current conditions at the 5200 and 5440 tank farm locations. The contaminants of concern, extent of lateral and vertical contamination, and contaminant migration will be discussed separately for the 5200 and 5440 locations.

5200 Location

No contaminants have been detected in groundwater sampling conducted at the 5200 tank farms since June 1987 (see Tables 3-2, 3-3). The contaminated area prior to 1987 is depicted on Figure 3-1. Figure 3-3 graphically depicts the MEK concentrations from 1982 to present for two monitoring wells at the 5200 location.

In 1984, during the drilling of well B-45, contaminated soils were encountered from 4.5 to 15 feet in depth, (see Table 3-1). Soil samples collected from depths of 19 to 29.5 feet detected no contaminants at this location. Soil sampling in 1984 during drilling of Wells B-42 and B-43 detected no contaminants to the maximum drill depth of 20 feet. Soil sampling conducted during tank removal in September 1988, at the 5200 solvent tank farm excavation pit detected maximum levels of MEK at .420 ppm; acetone at .170 ppm; isopropanol at .021; and neither cyclohexanone nor diglyme were measured at detection limits of .100 ppm and 1 ppm respectively.

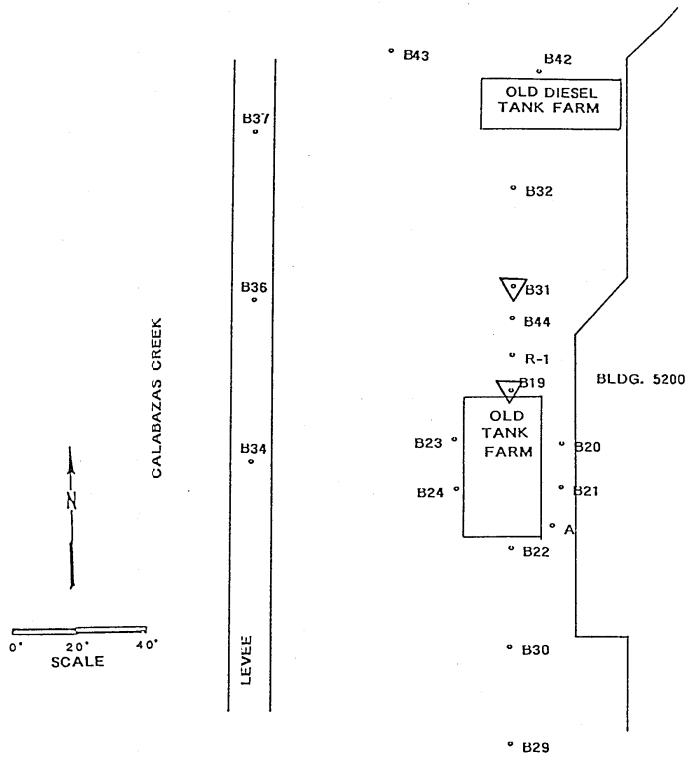
In summary, historical and current sampling data indicate that migration of contaminants has been limited to approximately 40 feet laterally downgradient, and 20 feet vertically. The groundwater and soil sampling results indicate that the groundwater quality at the 5200 tank farm locations is not being affected by residual contaminants which may still be present in the site soils at low levels. Contaminants of concern in groundwater have been below the laboratory detection limits for over two years. Current sampling indicates no contaminants present in groundwater at the site.

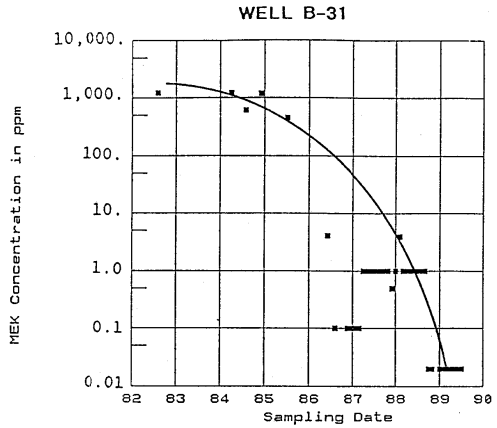
5440 Location

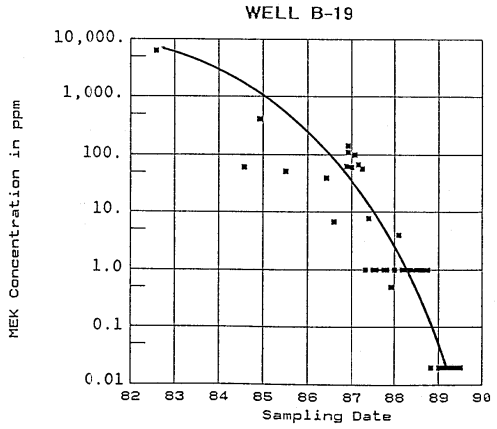
Results of recent sampling in July 1989, indicate groundwater contaminants are present in only three wells at the 5440 tank farm area (see Tables 3-5 and 3-6). Current maximum concentrations were detected in well B-9. Levels of MEK at 64 ppm, and acetone at 13 ppm were detected in groundwater from this well during the July 1989 sampling. Figure 3-2 depicts the current area of contaminated groundwater based on groundwater sampling. Figure 3-4 graphically presents the MEK concentrations (from 1982 to present) at several wells at the 5440 location.

Soil sampling was conducted in October 1984 during the drilling of monitoring well B-45. Results of the analyses showed that MEK, acetone, and isopropanol were detectable in the soils at depths from 9.5 to 30 feet. The

FIGURE 3-3.
5200 MONITORING WELLS
MEK CONCENTRATIONS 1982 TO PRESENT





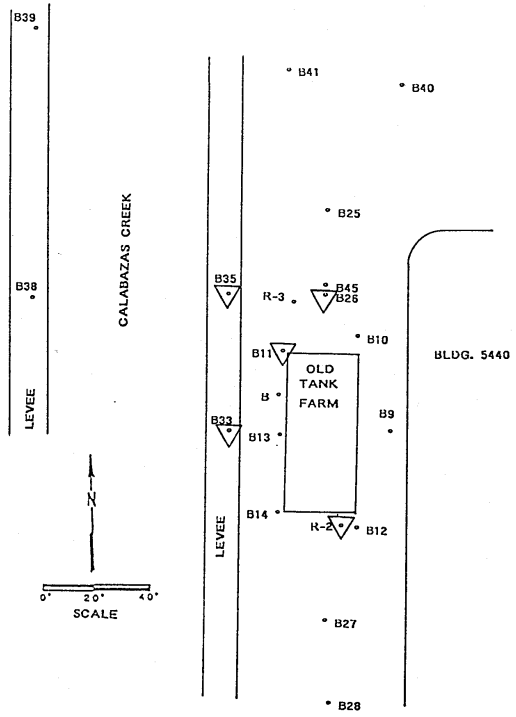


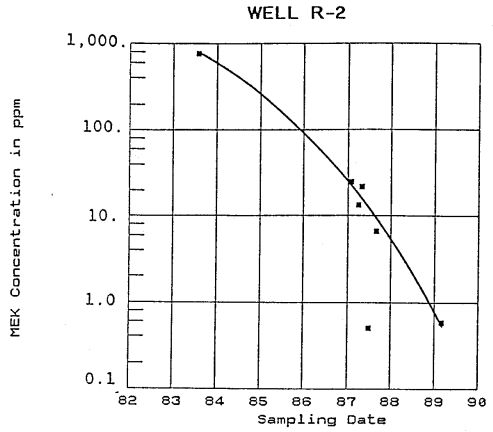
maximum MEK concentration found was 550 ppm from a soil sample collected from a depth of 19.0 to 19.5 feet. Water samples were later drawn from well B-45 in October 1984. Analytical results of the October 1984 samples showed MEK at 300 ppm while current levels (July 1989) in water at well B-45 are less than 1 ppm. Contaminant levels in soils have likely decreased in a similar manner as groundwater contaminated levels. Data presented in Section 4.0 indicate that MEK is only weakly sorbed to soils indicating low concentrations in water correspond to even lower concentrations in soil. Soil sampling conducted in September 1988 during tank removal at this location detected MEK, acetone, cyclohexanone, and isopropanol, all at less than 1 ppm. Isopropanol was not detected above the detection limit. Diglyme concentrations in the soil were detected at a maximum level of 10.6 ppm, and diesel was detected in soils at a maximum of 75 ppm.

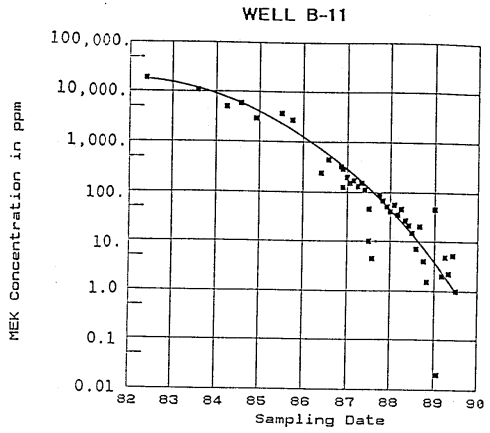
In summary, the extent of groundwater contamination based on current sampling is limited to a small area immediately adjacent to the 5440 tank farm. This area is depicted on Figure 3-2. The vertical extent of the contamination based on soil and groundwater samples appears to extend from near the water table, approximately 7 feet below the ground surface to a depth of approximately 30 feet.

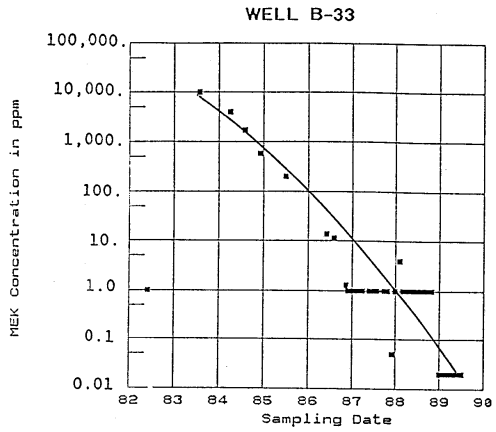
Historical and current sampling data indicate that lateral migration of contaminants was downgradient approximately 40 feet north of the tank farm and 20 feet to the east, west, and south. Although wells B-25 and B-41, farther to the north, did each have MEK detected in one sample. Sampling since that time has not confirmed the one-time detection of MEK in wells B-25 and B-41. Current sampling does indicate however, that contaminants in low levels in groundwater are still present in a limited area at the 5440 location.

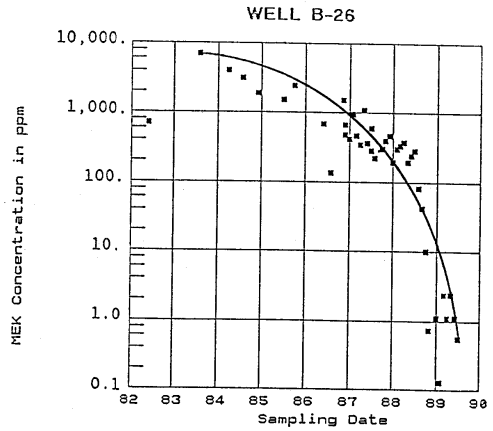
FIGURE 3-4.
5440 MONITORING WELLS
MEK CONCENTRATIONS 1982 TO PRESENT

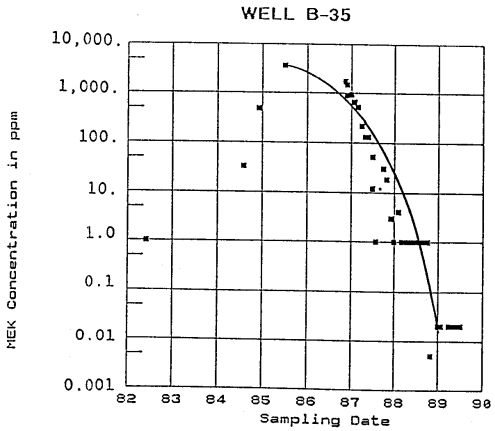












4.0 EVALUATION OF THE ENVIRONMENTAL FATE OF METHYL ETHYL KETONE

This section describes the potential environmental fate of MEK in residual concentrations in groundwater and soils at the 5200 and 5440 PHD facilities. This evaluation has been conducted to assist in understanding historical conditions at the 5200 and 5440 PHD sites. The evaluation includes an assessment and explanation of the observed decrease in MEK concentration at the sites. Environmental fate and mobility considerations are important factors to include in the development of a suitable final remediation plan for the two sites presented in Section 6. Data published by U.S. EPA and other scientific publications were researched in the preparation of this section and general conclusions were supplemented by field data from the sites. The material included in this section covers four areas:

1) Review of important chemical and physical properties of MEK,
2) Review of potential mechanisms for reduction in MEK concentrations at the sites including biodegradation, groundwater treatment operations,
3) Evaluation of site conditions and historical data; and
4) Conclusions regarding the probable fate of MEK at the sites.

4.1 Chemical and Physical Properties of MEK

Physical properties of ketones are the primary reason for their industrial use as solvents. Ketones are a class of organic compounds in which a carbonyl group (C=O), is attached to two carbon atoms. A wide variety of ketones have been developed, some of the more common forms include methyl ethyl ketone (MEK), acetone, and cyclohexanone (CH). Another common name used for MEK is 2-Butanone.

The most significant properties of ketones which make them ideal in solvent applications are as follows: 1) vapor pressure, boiling point and rate of evaporation, 2) solvent power and miscibility with other liquids, 3) viscosity and viscosity of solutions, and 4) inflammability, flash point, and explosive limit.

The primary chemical characteristics and physical properties controlling the fate and transport of MEK under environmental conditions include solubility, vapor pressure, specific gravity, organic carbon adsorption coefficient (K_{oc}), and potential for biodegradation. Values for these parameters are shown in Table 4-1. MEK is an extremely soluble compound with an estimated solubility limit of 223,000 ppm or about 22% in water (SRC, 1985). The vapor pressure of MEK is estimated to be 95.3 mm Hg (SRC, 1985). This is an indication that MEK is a volatile compound which will evaporate rapidly when exposed to air. Mackay and Wolkoff (1973) estimate the half-life for MEK in aqueous solutions to be about 140 hours at 20° C. The specific gravity of MEK is 0.806 indicating that it would float on top of a water table in a pure product form. Downward migration in groundwater would only be due to vertical water migration as opposed to compounds with a specific gravity greater than 1.0 which would tend to sink to the bottom of an aquifer.

Table 4-1. Chemical and Physical Properties of MEK

Property	Value	Units	Source
Vapor Pressure	95.3	mm Hg	SRC, 1985
Solubility	223,000	mg/L	SRC, 1985
Specific Gravity	0.806	--	OHMTADS
Organic Carbon Adsorption Coefficient K_{oc}	5.4	ml/gm	SRC, 1985
Potential for Biodegradation	high	--	U.S. EPA 1977 U.S. EPA 1976 OHMTADS

4.1.1 Adsorption of Methyl Ethyl Ketone to Soils

The organic carbon adsorption coefficient, K_{oc}, is a measure of the tendency of a chemical to partition itself under equilibrium conditions between a soil adsorbed phase and a solution phase in water. Hydrophobic chemicals which adsorb to soils typically have a K_{oc} value greater than 500 ml/gm. Hydrophilic chemicals which do not adsorb to soils typically have a K_{oc} value less than 100 ml/gm. The K_{oc} value for MEK is estimated to be 5.4 ml/gm (SRC, 1985). This value is low and indicates that MEK will not

partition significantly to soils and should be fairly mobile in the soil environment. Based on a K_{oc} value of 5.4 and a typical fraction organic carbon (f_{oc}) of about 1%, an order of magnitude estimate for a soil-water partition coefficient (K_d) for MEK may be estimated as (DHS 1986, Karickhoff 1984):

Organic Carbon Adsorption Coefficient	$K_{oc} = 5.4$ ml/gm
Fraction Organic Carbon	$f_{oc} = 0.01$
Soil-Water Partition Coefficient	$K_d = K_{oc} \times f_{oc}$
	$K_d = 5.4 \times 0.01$
	$K_d = 0.05$ ml/gm

This estimated partition coefficient is an order-of-magnitude estimate and is consistent with limited available experimental data ranging from 0.01 to 0.02 ml/gm (Donaldson et al, 1975). This value indicates that for a water concentration of 1 mg/l the equilibrium soil concentration would be about 0.05 mg/kg. This low partition coefficient indicates that MEK should travel at approximately the same average velocity as groundwater at the sites of concern. Additionally, groundwater remediation at a site impacted by MEK will also effectively result in remediation of soils in contact with groundwater as well because MEK tends to stay in the water phase rather than be adsorbed to the soils.

4.1.2 Biodegradation of Methyl Ethyl Ketone

The potential for biodegradation of MEK and other ketones has been studied extensively (U.S. EPA, 1976, U.S. EPA, 1977, Chou et al, 1979). The conclusion of many available studies is that MEK and other ketones are readily biodegraded under aerobic conditions and also under anaerobic conditions, although at a somewhat slower rate. Most available data document MEK biodegradation in pure cultures of microorganisms. However, the fact that

significant accumulation of these compounds in the biosphere has not been measured indicates that ketones are readily degraded in the environment as well (U.S. EPA, 1976).

A typical reaction representing the degradation of MEK may be expressed as (U.S. EPA, 1976):

$$2\ CH_3COC_2H_5 + 11\ O_2 \rightarrow 8\ CO_2 + 8\ H_2O$$

Based on the stoichiometry (molecular weight of MEK is 72.11 gm/mole), 2.44 mg O_2 should be consumed per mg of MEK degraded. However, based on experimental measurements, only 2.12 mg O_2/mg MEK is consumed (U.S. EPA, 1977) indicating that 87% of MEK is mineralized and 13% is assimilated by microorganisms. At relatively high MEK concentrations (greater than 100 mg/l) the initial degradation is inhibited for a lag period and at concentrations higher than 200 mg/l the degradation rate is slower. U.S. EPA (1977) hypothesizes that the slower degradation rate may be the result of inadequate mineral nutrients. U.S. EPA (1976) states that soil bacteria will degrade ketones in a period estimated at one to two months. Other sources (Abrams et al, 1975, Garland and Mosher, 1975) note that high concentrations of ketones associated with industrial waste will likely slow down the rate of biodegradation.

4.2 Fate of MEK at the 5200 and 5440 Sites

The conditions at both sites indicate that MEK has not migrated significant distances from the tanks where the spills occurred. At the same time, the concentration of MEK has decreased from high values of nearly 20,000 ppm to non-detect values at the majority of sampling locations. This five order of magnitude decline in MEK concentrations (from 20,000 ppm to less than 0.1 ppm) has been observed over a seven year time frame.

The soils at the sites are generally clays and clay loams with few isolated pockets of more permeable sandy materials. Typical ranges of hydraulic conductivity for these types of soils are from about 10^{-3} to 10^{-5} cm/sec (3.0 to 0.03 ft/day) (U.S. EPA, 1988, Rawls et al, 1982). The gradient

in the shallow aquifer is generally flat and somewhat variable over time at the two sites but a typical average value is about 0.002 ft/ft. Since the magnitude of the gradient is very low, measurement errors may contribute significantly to some of the observed variability.

Using these approximate values of the gradient, hydraulic conductivity and an assumed porosity of 0.2, the pore velocity of water in the soil is estimated as (DHS, 1986):

hydraulic conductivity	K = 3.0 ft/day
gradient	J = 0.002 ft/ft
porosity	n = 0.2
pore velocity	v = K x J/n
	v = 3.0 x 0.002/0.2
	v = 0.03 ft/day
	(11 ft/year)

This estimated pore velocity is an order-of-magnitude estimate and indicates that MEK migration in the clayey soils at the sites is very slow. The estimated pore velocity does not include any adsorption of MEK to soil material because the expected effect will be minimal. The chemical migration observed at the sites indicates that the bulk movement of MEK has only been about 50 feet between 1982 and 1989. These observed conditions, as shown in Figures 3-1 and 3-2 of Section 3.2, are consistent with the estimated migration rate.

These estimates and existing site data indicate that migration out of the area has not been a significant mechanism for the reduction of MEK at the sites. The pump and treat systems at both sites operated between 1985 and 1988 and are responsible for removing a significant fraction of the MEK from both sites.

Prior to 1985 and in late 1988 and 1989 the pump and treat systems were not operating. During these time periods, significant reductions in MEK concentrations occurred. The existing site data illustrate that some other mechanism has contributed significantly to the reduction of MEK concentrations

at both sites. Based on the available data, it appears that MEK has not migrated offsite in any measurable concentrations. It is not possible to conclusively identify the fate of MEK at the sites. However, site conditions and the biodegradation potential of MEK indicate that biodegradation at the sites is likely and that natural biochemical processes are probably key processes in removal of MEK from the sites.

5.0 PUBLIC HEALTH EVALUATION

5.1 Introduction

The purpose of this assessment is to evaluate the potential impacts on public health that may result from existing conditions of residual chemical contamination in soils and water at the Xidex site. The evaluation follows a five-step process. Each step is outlined below and corresponds to a part of this section.

1) Identification of chemicals of concern. In the first step, the analytical data are reviewed to select chemicals that are most likely to contribute to potential human risk based on frequency of occurrence, concentrations in environmental media, relative toxicity, and association with the source of contamination.

2) Identification of exposure pathways. In the second step, important chemical release mechanisms, transport within media, and exposure points are qualitatively identified.

3) Estimation of exposure point concentrations. In the third step, the concentrations of chemicals of potential concern at the major exposure points, identified in the previous subsection, are estimated.

4) Risk assessment. In the fourth step, potential risks to human health are evaluated by comparing the exposure point concentrations to appropriate toxicological data. For potential human carcinogens, excess lifetime cancer risks associated with exposure at the estimated exposure point concentrations are calculated. For noncarcinogens, a hazard index is calculated.

5) Development of Cleanup goals. In the final step of a public health evaluation, health-based cleanup goals are calculated for chemicals of concern for exposure scenarios that were shown to exceed certain target risk levels in the risk assessment.

5.2 Selection of Chemicals of Concern

Based on the data evaluation presented in Section 3.0, the following chemicals were identified as chemicals of potential concern: methyl ethyl ketone, acetone, isopropanol, cyclohexanone, diglyme, and diesel.

Table 5-1. Chemicals of Concern Selected at the 5200 and 5440 PHD Sites

Medium	Chemical
Groundwater	Methyl ethyl ketone Acetone Isopropanol Cyclohexanone Diglyme Diesel
Soil	Methyl ethyl ketone Acetone Isopropanol Cyclohexanone Diglyme Diesel

5.3 Identification of Exposure Pathways

Exposure pathways in a public health evaluation have the following components:

- a contaminant source,
- a chemical release mechanism,
- a medium for environmental transport,
- a point of potential human contact, and
- a route of exposure (i.e., ingestion, inhalation, dermal contact).

A potential pathway is not considered complete unless all these factors are present. Several exposure pathways have been identified for consideration in this risk evaluation based on a review of the contaminants present and the current and potential future use of the site.

As the tank areas at both Building 5200 and Building 5440 have been paved over, direct contact with contaminated soil or inhalation of volatilized components are not thought to be of concern under current-use conditions. Additionally, ingestion of contaminated groundwater is not considered to be of concern at the current time since no drinking water wells are located within a mile of the property and contamination has not migrated from the property boundary. In contrast, a potential exists for exposure via all of these pathways if usage of the property changed.

Because the potential, albeit slight, exists for the modification of existing site usage, two hypothetical future-use scenarios have been created for evaluation. The first addresses potential exposure by construction workers in the event construction activity occurred in the vicinity of the tank farms. This scenario is considered a possibility during short periods of utility repair or new construction. Exposure via dermal contact and incidental ingestion of soil as well as inhalation of volatilized contaminants from soil may be expected under these conditions. Although some inhalation of fugitive dust may be possible, the chemicals of potential concern are not likely to adsorb to soil to any great extent and this exposure is expected to be a negligible contribution to overall exposure.

The second future-use scenario addresses the possibility that a change in site usage would result in installation of a drinking water well in the vicinity of the tank farms. There are presently no plans for developing the site for an alternative use, and exposure under the well development scenario is considered very unlikely. The shallow groundwater under the Xidex site is most likely of poor quality and development of a well for drinking water would probably result in the well being placed in the deeper groundwater (See Section 2.2.3). However, in this analysis, the installation of a shallow well and subsequent exposure is being evaluated because this scenario represents an upper-bound worst-case. A summary of the exposure pathways being considered in this evaluation is as follows:

- Current-use: No direct contact or incidental ingestion of soils, inhalation of vapors or dust, or ingestion or contact with contaminated groundwater is likely under current conditions. Therefore, under current conditions, no complete exposure pathways are assumed to exist.

- Future-use: Direct contact and incidental ingestion of soil by construction workers is considered unlikely, but possible, and will be evaluated. Ingestion of contaminated groundwater from the shallow aquifer is highly unlikely but cannot be ruled out and will be considered.

5.4 Estimation of Exposure Point Concentrations

In order to determine the likelihood of adverse health effects occurring following exposure under the scenarios outlined above, concentrations of chemicals of potential concern in various exposure media (i.e., exposure point concentrations) must be estimated. Estimating exposure point concentrations may be accomplished in two ways: 1) by using the sampling data to calculate direct exposure, and 2) by utilizing a transport model to predict the potential migration of contaminants to, and concentrations at, distant exposure points. To simplify the analysis by eliminating the need for modeling of contaminant migration, and to approximate worst-case conditions, the future-use scenarios will assume construction activities and well installation occur in the center of the tank farm areas and not at a distant point. This is highly unlikely and should overestimate risk but is considered herein to demonstrate worst case conditions.

Construction Worker Exposure Point Concentrations

For the construction worker scenario, the geometric mean concentrations of the contaminants of concern in the backfill at the time of tank removal (September, 1988) will be used as exposure point concentrations. This is a

very conservative estimate as digging directly and solely in the tank area is unlikely.

From the South tank farm area adjacent to Building 5200, six composite samples of the tank backfill were taken and analyzed for the chemicals of concern (acetone, isopropanol, methyl ethyl ketone, cyclohexanone, and diglyme). For each contaminant, the geometric mean of the six samples is calculated to be the conservative exposure point concentration for the soil in the Building 5200 South tank farm area. Non-detected chemicals were conservatively assumed to be present at a concentration equal to the detection limit. The results of this analysis are shown in Table 5-2.

From the North tank farm adjacent to Building 5200, six soil samples were taken from the excavation site at the time of the tank removal. As the tanks at this area were used solely for storing diesel, these samples were analyzed only for this contaminant. The geometric mean of the samples was calculated to be the exposure point concentration for soils in the Building 5200 North tank farm area. The results of this analysis are also shown in Table 5-2.

A similar calculation was performed to determine conservative contaminant concentrations in the soil of the tank farm near Building 5440. Five composite samples were taken from the backfill during the Building 5440 tank removal operation in September, 1988. These samples were analyzed for the same contaminants as above. Exposure point concentrations are taken to be the geometric mean of these samples. The results of this analysis are shown in Table 5-2.

Table 5-2. Exposure Point Concentrations of Chemicals of Concern Residents Under the Construction Worker Scenario

CHEMICAL OF CONCERN	SOIL SAMPLE (PPM) 1	2	3	4	5	6	GEOMETRIC MEAN (PPM)	EXPOSURE PT CONC (PPM)
Building 5200-South								
MEK	0.38	0.59	0.2	0.14	0.38	0.06	0.23	0.23
Acetone	0.06	0.04	0.03	0.02	0.04	0.006	0.03	0.03
Isopropanol	(0.001)	0.002	0.003	(.001)	0.016	0.009	0.003	0.003
Cyclohexanone	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	0.1	0.1
Diglyme	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	1.0	1.0
Building 5200-North								
Diesel	200	2.0	20.0	93.0	3.0	4.0	14.0	14.0
Building 5440								
MEK	(0.01)	(0.01)	0.014	(0.01)	(0.01)		0.011	0.011
Acetone	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)		0.01	0.01
Isopropanol	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)		0.03	0.03
Cyclohexanone	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)		0.03	0.03
Diglyme	(1.0)	4.5	3.25	7.0	6.0		3.6	3.6
Diesel	5.4	1.8	0.25	1.4	5.7		1.82	1.82

Note: Numbers in parenthesis represent detection limits.

Well Installation Scenario

Calculation of exposure point concentrations under the well installation scenarios is based on the very conservative assumption that a well is placed in the center of each tank area. It should be noted that such an event is highly unlikely for several reasons. First, if a well was placed on the property, which itself is unlikely, it would probably be placed at a distance rather than in the center of the tank farm. Second, if the well were to be used as a drinking water source, it would likely be placed in a deeper aquifer as the shallow groundwater quality is known to be poor due to contamination with sea water (See Section 2.2.3). And third, the concentrations of contaminants present when the well becomes operational are likely to be lower

than those currently measured because there is evidence that the contamination is being reduced over time by natural processes.

As discussed in Section 3.4, no contaminants have been detected in groundwater samples taken from the wells in the vicinity of the Building 5200 tank farms since June 1987. However, as a conservative approach, a well installation scenario will be evaluated for the Building 5200 area based on the assumption that the chemicals of potential concern are present in the well water at a concentration equal to the detection limit for the chemicals. These hypothetical exposure point concentrations are shown in Table 5-3.

Sampling of groundwater at the Building 5440 tank farm wells has shown a low level of contamination. A conservative estimation of the concentration of contaminants that would be found in well water if a well was installed in the center of the Building 5440 tank farm is made by taking the average concentrations of contaminants found in four wells surrounding the tank farm area, namely wells B-9, B-26, B-27, and B-33. This is based on the assumption that a well placed in the center of the tank farm would draw water from all of the areas represented by these wells. The results of this analysis are shown in Table 5-3. Only one of the above wells, B-26, was tested for diesel. In this analysis diesel was not detected, however, testing of well B-11 showed a small amount of diesel. Therefore, a conservative estimation of the exposure point concentration of diesel is made by taking the average of these two samples.

Table 5.3 Exposure Point Concentrations of Contaminants of Concern Groundwater Under the Future Well Installation Scenario

Building 5200

Chemical of Potential Concern	Concentration in Groundwater[a] (ppm)*	Average Concentr. (ppm)	Exposure Point Concentration (ppm)
MEK	No constituent has been	---	0.02
IPA	detected in any samples	---	0.1
Acetone	take since July 1987. For	---	0.02
Cyclohexanone	the purposes of this analysis	---	0.1
Diglyme	it is assumed all chemicals	---	1.0
Diesel	are present at the detection	---	0.1
as 0.1% Benzene	limit for the specific		0.0001
	chemical (except for benzene which is calculated as a percent of the diesel value).		

Building 5440

Chemical of Potential Concern	Concentration in Groundwater[a] (ppm)				Average Concentr. (ppm)	Exposure Point Concentration (ppm)
	Well #					
	B-9	B-26	B-27	B-33		
MEK	64	0.55	<0.02	<0.02	16	16
IPA	<2	<0.1	<0.1	<0.1	0.6	0.6
Acetone	13	0.1	<0.02	<0.02	3.3	3.3
Cyclohexanone	0.1[b]	0.1[b]	0.1[c]	0.1[b]	0.1	0.1
Diglyme					10-100[d]	10-100[d]
Diesel	1.7[e]	<0.1			0.9[e]	0.9
as 0.1% Benzene						

---

* ppm = mg/l

[a] Sampling performed July 1989 unless otherwise noted.

[b] Sampling performed March 1989.

[c] Sampling performed January 1989.

[d] Sampling performed 1982.

[e] This sample taken from well B-11. The higher concentration of diesel from well B-11 is used to build a conservative estimate.

5.5 Risk Assessment

In this section, exposure pathways, and the toxicity of the chemicals associated with each pathway, are evaluated quantitatively to estimate the risks associated with human exposure. This evaluation is performed using two methods. The first method compares levels of chemicals of potential concern in different environmental media with applicable and/or appropriate standards and criteria, if available. The second method quantitatively compares the estimated intake of the chemicals by exposed individuals with health-based criteria to characterize the non-carcinogenic and excess lifetime cancer risk associated with exposure to the contaminated media.

5.5.1 Comparison to Applicable and Appropriate Standards and Criteria

No standards or criteria have been developed under the Safe Drinking Water Act and Clean Water Act for the chemicals of potential concern at the site. An Applied Action Level (AAL) of 1.8 mg/l (ppm) in water has been set for methyl ethyl ketone by the State of California. Current monitoring data from wells at the Building 5200 tank farm area indicate that methyl ethyl ketone is not detected and therefore is not present at concentrations above 0.02 ppm, two orders of magnitude below the State action level. The conservatively estimated concentration of methyl ethyl ketone for hypothetical well water from the Building 5440 site is 16 ppm. This concentration exceeds the State AAL and will be evaluated below for potential health risks in the event that construction of a shallow water well were to occur in the very near future. This is an unlikely event and with the passage of time, concentrations are likely to be reduced below the AAL by natural mechanisms.

No AALs for the other chemicals of potential concern are available for either soil or groundwater, however, 100 ppm is commonly used as a point of departure for consideration of total petroleum hydrocarbon contamination of soils. The concentrations of total petroleum hydrocarbons as diesel estimated as exposure point concentrations for the Building 5200 and 5440 tank farm soils are 14 ppm and 1.8 ppm respectively; both values are well below 100 ppm. As an additional measure, these concentrations will be further evaluated in

the sections below, based on the use of 0.1% benzene as an indicator chemical for diesel. The use of benzene as an indicator chemical is for purposes of illustration only; it should be noted that benzene has not been detected in recent monitoring efforts. Benzene and the other chemicals of potential concern lacking applicable and appropriate standards and criteria, are evaluated quantitatively in the next section.

5.5.2 Quantitative Risk Assessment

In instances in where applicable or relevant and appropriate requirements are not available for the chemicals at a site, quantitative risk assessment must be completed. Risk assessment involves combining information concerning potential levels of exposure with information regarding the toxicities of the chemicals in order to determine the potential health risks. This process will be described in three steps. The first step examines the toxicities of the chemicals; the second, examines the populations exposed and estimated their levels of exposure; and the third, characterizes the risks associated with the predicted levels of exposure. Each of these steps is described in detail below.

In the first step of the assessment, the toxicities of the chemicals of potential concern are examined. The toxicity values that will be used to assess risk are described and identified for each chemical of potential concern. Detailed descriptions of the toxicological properties of each chemical of concern, as well as a summary of the chemical-specific criteria and the data used to develop these criteria, are presented in Appendix C.

Health criteria for evaluating non-carcinogenic effects of the chemicals of concern at the Xidex site were developed using EPA Reference Doses (RfDs) derived by the RfD Work Group or obtained from Health Effects Assessment documents (HEAs). These criteria are shown in Table 5-4. The RfD is an estimate, with uncertainty spanning perhaps an order of magnitude or greater, of a daily exposure to the human population (including sensitive sub-populations) that is likely to be without an appreciable risk of deleterious effects within a lifetime of exposure to such concentrations of a contaminant. The RfD is expressed in units of mg/kg/day.

For the assessment of carcinogenic hazards, cancer potency factors developed by EPA's Carcinogen Assessment Group are used. The cancer potency factor (q_1^*) for a given chemical is the slope of the line derived from the linearized multistage model which relates risk to dose. The q_1^* values are 95% upper confidence limit values. They represent an "upper bound" in the sense that the true potency factors, which are unknown, are believed to be unlikely to exceed the upper bound risk estimate. The cancer potency factor is expressed in units of $(mg/kg/day)^{-1}$.

Table 5-4. Health Effects Criteria for Chemicals of Concern

Chemical	Reference Dose (RfD) (mg/kg/day) (a) Oral	Cancer Potency Factor, Oral $(mg/kg/day)^{-1}$	EPA Weight-of-Evidence
Methyl Ethyl Ketone	5.0×10^{-2}		
Acetone	1.0×10^{-1}		
Isopropanol	--		
Cyclohexanone	5.0		
Diglyme	$1.4 \times 10^{+2}$		
Diesel as 0.1% benzene	--	2.9×10^{-2}	A

(a) Sources of RfDs: IRIS=chemical files of the Integrated Risk Information System; HEA= Health Effects Assessment Summary Tables Quarterly Update-Second Quarter FY 1989.
(b) Weight-of-Evidence classification scheme for carcinogens: A= Human carcinogen, sufficient evidence from human epidemiological studies; B= Probable Human Carcinogen; C= Possible Human Carcinogen ; D= Not classified as to human carcinogenicity; and E= evidence of noncarcinogenicity.

5.5.3 Populations at Risk and Exposure Estimates

The second step of the risk assessment involves examining the populations exposed and determining their levels of exposure. In this section, the populations at risk of exposure are described, including various assumptions about their behavior that may determine the amount of contamination to which they are exposed. Later in the risk assessment,

chronic daily intakes (CDI) of contaminants by populations potentially exposed are calculated based on the concentrations of chemicals present at the site and the assumptions developed below. The CDIs will be combined with RfDs and CPFs in order to determine whether the estimated intake level poses a threat to human health.

In this evaluation, no populations are considered to be at risk of exposure under the current conditions. In the future, however, populations at risk may include construction workers and hypothetical residents consuming well water. To determine the rates of contamination intake for these two potentially exposed populations, two scenarios, one depicting the activities of construction workers, the other, the activities of residents, have been constructed.

Future-Use Scenario: Exposure of Construction Workers to Contaminated Soils

In the event the site undergoes repairs or development, construction workers employed at the site could potentially be exposed to contaminated soils. Construction workers may contact the contaminated soil and the contamination may be absorbed through the skin or be inadvertently ingested.

For the construction worker scenario, two cases for the intake of contamination were considered for the exposed individuals--an average case and a plausible maximum case. The average case assumes average estimates of exposure parameters (e.g., average frequency and duration of exposure and quantity of contaminated media contacted). The plausible maximum case, on the other hand, assumes the highest estimates of the exposure parameters. While the exposure parameters used for the plausible maximum case are possible, they are likely to apply to only a small fraction of the population. Assumptions for the construction worker average and maximum plausible exposure scenarios are shown in Table 5-5.

Table 5-5. Assumptions used to Estimate Exposure to Construction Workers via Direct Contact with Soil-- Future-Use Scenario at the Xidex Site

Parameter	Average Case	Plausible Maximum Case
Frequency of exposure	264 days/year	264 days/year
Period of exposure	0.25 years	0.5 years
Incidental ingestion[a]	50 mg/day	100 mg/day
Oral absorption factor[b]		
All chemicals of concern	1.00	1.00
Daily soil contact rate[c]	0.5 mg/cm^2	1.5 mg/cm^2
Area of exposed skin[d]	1980 cm^2	1980 cm^2
Dermal absorption factor[e]	0.10	0.10
Average body weight	70 kg	70 kg
Exposure point concentration		
Buildings 5200 and 5440	See Table 5-2	See Table 5-2

[a] Based on the work of LaGoy, 1987.
[b] This factor represents the percentage of contaminants absorbed from ingested soil.
[c] Based on the work of Schaum, 1984.
[d] EPA 1985
[e] This factor represents the percentage of contaminants absorbed through the skin.

For the average and plausible maximum scenarios, construction workers are assumed to work 5 days a week and to remain at the site for an average of 3 months or a maximum of 6 months, respectively. They are assumed to be adults with an average body weight of 70 kg, and to ingest 50 to 100 mg of soil per day (LaGoy, 1987). In addition, construction workers may be exposed to soil contaminants by direct dermal contact. Daily soil contact rates of 0.5 to 1.5 mg/cm^2 has been assumed to occur over an area of exposed skin surface of 1980 cm^2 the hands and forearms (Schaum, 1984 and EPA, 1985). Ten percent of the chemical present in the soil is assumed to be absorbed through the skin in the average and plausible maximum cases.

Future-Use Scenario: Exposure of Residents to Contaminated Groundwater

Although it is a highly unlikely occurrence, the placement of a shallow well on the Xidex property is being evaluated as a worst case. Potential

health risks associated with exposure to the indicator chemicals in groundwater can be estimated using the following assumptions: that a 70 kg individual ingests 2 liters of contaminated water a day for a 70 year lifetime.

Additional exposures to groundwater are also possible. Such exposures include direct contact with the water during bathing and inhalation of volatilized components during showering. Such exposures are expected if the groundwater is used as a drinking water source for a residential building. Such use is not consistent with the existing facilities and will not be evaluated quantitatively; however, a qualitative evaluation suggests that inclusion of these exposures will likely increase the risks by a factor no greater than 2.

5.5.4 Estimation of Potential Health Risks

The last step of a risk assessment describes the comparison of the estimated intake rates with health based criteria to determine the risks posed to human health. Chronic Daily Intake (CDI) rates are calculated using the equations presented in Appendix D and are based on the exposure assumptions developed in the scenarios above (listed in Table 5-5 and Section 5.5.3) and the estimated concentrations of chemicals of potential concern in soils and groundwater (listed in Tables 5-2 and 5-3). CDIs are expressed as the amount of a substance taken into the body per unit body weight per unit time, or mg/kg/day. A CDI is averaged over a lifetime for carcinogens and over the exposure period for noncarcinogens.

Potential risks for noncarcinogens are presented as the ratio of the chronic daily intake exposure to the reference dose (CDI:RfD). If the CDI:RfD ratio is less than one (i.e., if the average daily intake is below the reference dose) the contaminant is considered unlikely to pose a health hazard to individuals exposed under the given exposure conditions. In cases in which more than one non-carcinogen is present, the CDI:RfD ratios are summed to determine if combined exposure may pose a health concern. The sum of the CDI:RfD ratios is called the Hazard Index. Similar to single CDI:RfD ratios, hazard indices which are less that one are not likely to be associated with

any health risks. It should be noted that there is some uncertainty associated with the Hazard Index due to the uncertainties inherent in the development of the CDIs and RfDs. However, in developing the scenarios for this analysis, worst-case conditions were selected (i.e., the hypothetical well was placed in the center of the tank area). Furthermore, conservative assumptions were used in the determination of the amount of contaminated media consumed and in EPA's development of the reference dose. Therefore, it is unlikely that actual CDI:RfD ratios would be greater than those calculated and may in fact be less.

For potential carcinogens, excess lifetime cancer risks are obtained by multiplying the daily intake of the contaminant under consideration by its cancer potency factor. A risk level of 10^{-6}, representing a probability of one in 1,000,000 that an individual could contract cancer due to exposure to the potential carcinogen, is often used as a benchmark by regulatory agencies. Accordingly, the benchmark risk level used in this report will be 10^{-6}.

Construction Workers. For construction workers, CDIs were calculated for the chemicals present in the soil samples from the tank farms at Building 5200 and at Building 5440.

The CDIs were combined with RfDs or the CPFs to estimate noncancer and cancer risks associated with this level of exposure. The results of this analysis for exposure to soils at the Building 5200 and 5440 tank farms areas are shown in Table 5-6. For the noncarcinogens being evaluated, in no case did the CDI:RfD ratio exceed 0.01 for any chemical under either the average or plausible maximum scenarios. Furthermore, the Hazard Index (the sum of all of the CDI:RfD ratios) calculated for exposure to the chemicals under the average and plausible maximum scenarios remained less than 0.01 for both the 5200 and 5440 sites. As these Hazard Indices are several orders of magnitude less than one, it is unlikely that the presence of these chemicals at either location poses a threat to human health. For the carcinogen benzene, being evaluated as an indicator of diesel contamination, excess cancer risks were calculated to be 6×10^{-10} and 2×10^{-9} at Building 5200 and 7×10^{-11} and 2×10^{-10} at Building 5440, for the average and plausible maximum cases, respectively. These values are several orders of magnitude below the 10^{-6} risk benchmark.

Residents Consuming Groundwater. For future residents consuming groundwater from a well placed in the tank farms at either Building 5200 or Building 5440, CDIs were calculated for the chemicals of concern. The CDIs were combined with RfDs or CPFs to estimate risks. The results of this analysis are shown in Table 5-7. The calculated CDI:RfD ratios for the consumption of well water at the Building 5200 were all below 0.01. The Hazard Index for this case was also less than 0.01.

The CDI:RfD ratios for the chemicals of concern at the Building 5440 tank farm, with the exception of methyl ethyl ketone, were less than one. The CDI:RfD for methyl ethyl ketone at the hypothetical well placed in the Building 5440 tank farm was calculated to be 9.1. As this number exceeds one, exposure to methyl ethyl ketone via this route may be of concern. The excess cancer risk posed by the presence of benzene as a constituent of diesel was 8×10^{-7}, below the 10^{-6} benchmark value.

Table 5-6. Chronic Daily Intake and Noncancer Risks to Construction Workers

Chemical of Concern	Chronic Daily Intake mg/kg/day		CDI:RfD Ratio mg/kg/day		Excess Cancer Risk	
	Average	Plausible Maximum	Average	Plausible Maximum	Average	Plausible Maximum
Building 5200 South						
MEK	3.2×10^{-7}	9.2×10^{-7}	<0.001	<0.001	---	---
Acetone	4.2×10^{-8}	1.2×10^{-7}	<0.001	<0.001	---	---
IPA	4.2×10^{-9}	1.2×10^{-8}	---	---	---	---
Cyclohex.	1.4×10^{-7}	4.0×10^{-7}	<0.001	<0.001	---	---
Diglyme	1.4×10^{-6}	4.0×10^{-6}	<0.001	<0.001	---	---
Building 5200 North						
Diesel as benzene	2.0×10^{-8}	5.6×10^{-8}			6×10^{-10}	2×10^{-9}
Building 5440						
MEK	1.5×10^{-8}	4.4×10^{-8}	<0.001	<0.001	---	---
Acetone	1.4×10^{-8}	4.0×10^{-8}	<0.001	<0.001	---	---
IPA	4.2×10^{-8}	1.2×10^{-7}	---	---	---	---
Cyclohex.	4.2×10^{-8}	1.2×10^{-7}	<0.001	<0.001	---	---
Diglyme	1.0×10^{-5}	1.4×10^{-5}	<0.001	<0.001	---	---
Diesel as benzene	2.5×10^{-9}	7.3×10^{-9}			6×10^{-11}	2×10^{-11}

Table 5-7. Chronic Daily Intake and Risks to Residents Ingesting Shallow Groundwater

CHEMICAL OF CONCERN	CHRONIC DAILY INTAKE (mg/kg/day)	CDI:RFD RATIO	EXCESS CANCER RISK
Building 5200			
MEK	5.7×10^{-4}	<0.01	
Acetone	5.7×10^{-4}	<0.01	
Isopropanol	2.9×10^{-3}	---	
Cyclohexanone	2.9×10^{-3}	<0.01	
Diglyme	2.9×10^{-2}	<0.01	
Diesel as 0.1% benzene	2.9×10^{-6}		8×10^{-8}
Building 5440			
MEK	4.6×10^{-1}	9.1	
Acetone	9.4×10^{-2}	0.9	
Isopropanol	1.7×10^{-2}	--	
Cyclohexanone	2.9×10^{-3}	<0.01	
Diglyme	2.6×10^{-2}	<0.01	
Diesel as 0.1% benzene	2.9×10^{-5}	--	8×10^{-7}

5.5.5 Summary

The potential health risks associated with exposures to the chemicals present at the Xidex site are shown in Tables 5-6 and 5-7. No current-use scenarios were evaluated because exposure was not considered likely at this time. However, as future repairs or construction activities could potentially expose construction workers to the soil, and future well installation may expose potential residents to groundwater, risks due to exposure via these pathways were evaluated by constructing two future-use scenarios.

For the future-use scenario involving the exposure of construction workers to contaminated soil, the presence of the chemicals of potential concern is not likely to pose a threat to human health at either the Building 5200 or Building 5440 tank farms because the Hazard Indices for both the

maximum case and the average case scenarios at both locations were calculated to be less than one and the excess cancer risks were less than 10^{-6}.

For the future-use scenario involving the exposure of residents to contaminated groundwater, exposure via this route is not expected to be of concern if the well is placed at the Building 5200 site. However, location of a drinking water well in the center of the tank farm at Building 5440 is likely to pose a risk if the well water is ingested, due to the presence of methyl ethyl ketone. It should be reemphasized that this scenario was created for purposes of illustration and that construction of a well at this location is highly unlikely. Any drinking water well constructed at this location would most likely be placed in a lower aquifer because the water quality at shallower depths is known to be poor. Installation of a drinking water well from which a resident would drink for 70 years (the assumptions of the risk calculations) is not compatible with existing facilities, and no change in the type of facility is planned. In the unlikely event that a well is placed on the property, chances are small that it would be placed in the center of the tank farm. Furthermore, the concentrations of contaminants appear to be falling with the passage of time due to natural mechanisms and unless the well were installed in the very near future, the contamination may have fallen to below a level of concern.

5.6 Cleanup Goals

In this subsection, cleanup goals to assist in evaluating remedial alternatives at the Xidex Site are developed. These cleanup goals were developed using EPA-produced reference doses (RfDs) along with scenarios designed to approximate potential exposure for specific target populations. Equations and assumptions used to predict cleanup goals can be found in Appendix D.

5.6.1 Cleanup Goals for Soils

Health-based cleanup levels for the chemicals of potential concern in soils at the Xidex site were not calculated because existing levels of

contaminants do not appear to pose a threat under the scenarios describing incidental ingestion of soil and dermal contact with soil by future construction workers and additional cleanup is not considered necessary.

5.6.2 Cleanup Goals for Groundwater

Health-based cleanup goals for exposure to chemicals of concern in groundwater are based on consideration of standard assumptions concerning average daily ingestion of drinking water. That is, it is assumed that a 70 kg individual ingests 2 liters of water per day. Using the equations presented in Appendix D, the following groundwater cleanup goals for chemicals at the Xidex site were calculated.

Chemical	Cleanup Goal
MEK	1.8 ppm
Acetone	3.5 ppm
Cyclohexanone	17.5 ppm
Diglyme	4900.0 ppm
Diesel	1 ppm (50 ppb)

All of these cleanup levels, with the exception of diesel, correspond to a daily intake value equal to the reference dose. The diesel cleanup level is based on the State of California Maximum Contaminant Level (MCL) for benzene of 1 ppb and the assumption that diesel contains 0.1% benzene.

Under the extremely conservative drinking water well installation scenarios, only methyl ethyl ketone exceeds the cleanup goal. Based on the assumptions outlined above, the concentration of MEK should be reduced to a level of 1.8 mg/l, a concentration which yields over a 70 year exposure period, an average daily intake equal to the RfD. If a person is expected to be exposed for less than seven years (probably more appropriate for this site as the levels of contaminants keeps falling), a cleanup level of 18 mg/l based on EPA's subchronic RfD can be adopted.

5.7 Summary

In this public health evaluation, the potential risks to human health associated with chemicals present at the Xidex site were evaluated. Potential pathways of exposure to contaminants originating at the site under both current-use and future-use conditions were examined. Examination of the results of this evaluation indicate that no risks are likely to be associated with current exposure scenarios as exposure under current conditions is unlikely. Potential adverse health effects to construction workers working transiently at the site are also unlikely. There is some potential for ingestion of groundwater to pose a threat to human health if a shallow drinking water well were to be placed in the center of the tank farm located adjacent to Building 5440 in the near future. However, this is considered a highly unlikely event because shallow groundwater quality in the area is poor and a drinking water well would probably be placed in a lower aquifer. A residential drinking water well (70 year exposure) is not compatible with the existing facilities and no change in use is planned. Furthermore, if a well was installed on the property, it is unlikely it would be placed in the center of the tank farm.

6.0 FINAL REMEDIAL ACTION PLAN

The Xidex facilities at 5200 and 5440 PHD have undergone extensive environmental investigation and remedial measures since 1982. The facility groundwater extraction and treatment systems consist of three extraction wells and an air stripper for removal of volatile organics. The groundwater quality conditions have improved considerably since the operation of the extraction/treatment system.

The two primary locations of concern are the former tank areas near Building 5200 and Building 5440. These locations have been the subject of focused field investigations, tank removals, and aggressive efforts to manage the removal of residual chemical constituents from the shallow aquifer. Data recently gathered at the sites demonstrates the effectiveness of the extraction/treatment system and the effects of natural degradation. Data for the 5200 PHD site, as discussed in Section 3.0, show a significant decrease in concentrations to below the limits of analytical detection. Data gathered in the vicinity of the 5440 PHD site show some residual levels of MEK in groundwater.

This remedial action plan has been developed based on a thorough review of both the historical trends and current conditions. Factors considered in the development of the plan are:

1. Adequacy of the existing monitoring well system.
2. Degradation potential of the constituents of concern.
3. Current contaminant concentrations in groundwater and soils.
4. Potential exposure pathways for any residual contaminants.
5. Health-risk based goals for cleanup of contaminants of concern in soils and groundwater.
6. Applicable EPA and State standards for preservation of groundwater quality.
7. Available methods for disposal of treated groundwater at the facility.

The plan has been developed to address the site-specific aspects of each of the two tank storage areas separately. The plan has been structured to

account for any seasonal variation in groundwater elevation which may contribute to changes in the groundwater quality. The key items included in the plan are:

- interim operation pumping to validate the recent data,
- observation and sampling to monitor the effects,
- review of the remaining wells to evaluate adequacy,
- development of well destruction program,
- plans for continued monitoring, including location, frequency and parameters of analysis,
- plans for disposal of treated wastewater, and
- establishment of criteria for curtailment of pumping, treatment, and monitoring activities.

The Xidex facilities are within an area influenced by saltwater intrusion and shallow groundwater is considered saline. Water quality within this shallow aquifer is generally considered poor. There are no records of known groundwater wells for water supply within one mile of the Xidex facility.

Various exposure routes were considered in the development of health-based cleanup goals. The conservative analysis included in Section 5.6 allows for the remote possibility that ingestion of pumped groundwater could occur.

The concentrations of contaminants in soils at the two facilities are well below acceptable levels based on the risk evaluation discussed in Section 5.0. Likewise, the concentrations of contaminants in groundwater at the two facilities are near acceptable levels based on the risk evaluation. The exception is the residual methyl ethyl ketone (MEK) contamination at the 5440 PHD site for which we have calculated health-based groundwater cleanup goals considered protective for 70-year or 7-year exposure periods. The target cleanup goals for MEK are 1.8 ppm and 18 ppm for the 70-year and 7-year exposures, respectively. These health based cleanup goals are the same as the Applied Action Levels (AALs) for MEK adopted by the State of California because they have been derived based on the same risk assessment procedure.

The program described in this section includes activities designed to reduce MEK to these acceptable levels. Furthermore, this program includes quarterly testing to ensure that the other contaminants present in prior years at the site remain below the target cleanup goals listed in Table 6-1.

Table 6-1. Contaminant Cleanup Goals

MEK	1.8 ppm
Acetone	3.5 ppm
Cyclohexanone	17.5 ppm
Diglyme	4900.0 ppm
Diesel	1.0 ppm

The same methodology used for derivation of the cleanup goals listed in Table 6-1 is used to develop the State of California AALs, with the exception of diesel. The diesel target goal was developed using the State of California Maximum Contaminant Level (MCL) for benzene as an indicator and the fact that diesel may contain up to 0.1% benzene (LUFT Manual). For the contaminants listed above, only the MEK AAL has been published.

6.1 Interim Operation Pumping

Recent data has shown that there has been a significant decrease in contaminant concentrations at the Xidex facility over the last few years. There has also been a pronounced reduction in levels of contamination even when extraction pumps have not operated. Early studies at the facility noted that the extraction systems should be operated cyclically to maximize the fluctuations of the water table. This cyclic pumping was incorporated to enhance the flushing of contaminated soils in the cone of depression. Cyclic pumping, consisting of an eight hour pumping period followed by a sixteen hour recovery period, was implemented because of the nature of soils in the area. The soils consist of low permeability clays with isolated pockets of more permeable sandy/gravelly material.

Xidex will conduct a series of three discrete cyclic pumping test operations during the periods of highest water table elevation. Based on an

evaluation of available records, this occurs in the summer season, primarily during the months of July to September. The following operational guidelines will be followed during the test operations:

1. Pumping will be conducted with sufficient flowrate and duration to assure that the entire tank farm areas (encircled on the site map, Figures 6-1 and 6-2) are controlled within the zone of capture.

2. Water level measurements will be taken prior to and after at least three to four days of pumping for each test operation to document control of the entire tank farm area.

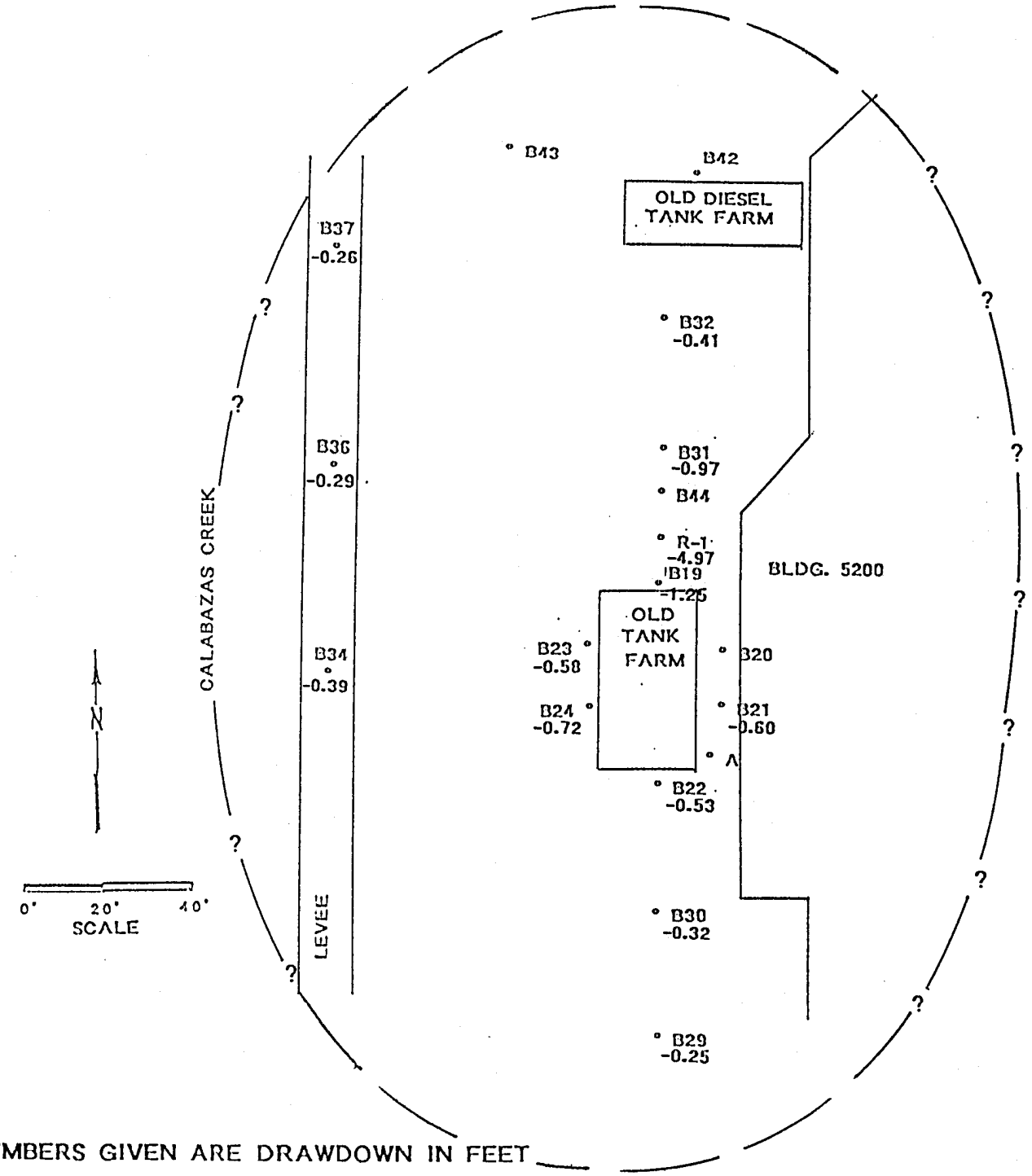
3. Ample time (three to four days) will be allowed as part of each test operation for recharge of areas of drawdown and for recovery wells to stabilize.

4. For each of the cyclic pumping tests, samples will be taken immediately prior to initiation and following cyclic test completion at the locations shown on Figures 6-3 and Figure 6-4.

5. Sampling from wells and analysis of samples will be conducted using the field procedures and analytical methods used in the prior periodic monitoring at the facility. Specifically, all samples drawn for analysis will be tested for the presence of MEK, acetone, and isopropanol using EPA Method 624, and diesel using TPH EXTN/GC-FID. Sampling, chain of custody, and analytical procedures will conducted in accordance with the Quality Assurance Project Plan previously submitted to the RWQCB, and included as Appendix E to this report.

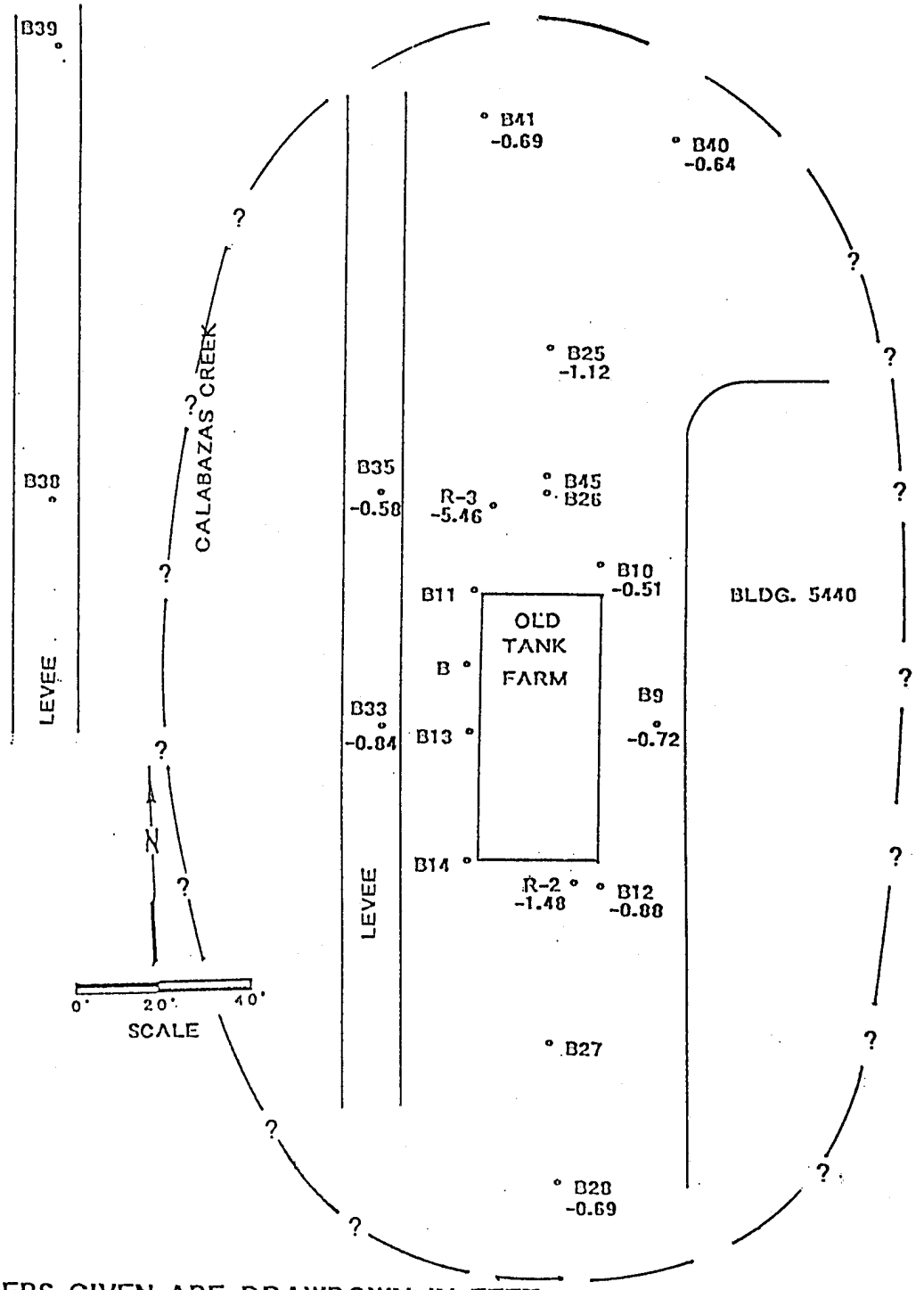
6. Three discrete tests will be conducted during the July to September period for both of the sites (5200 and 5440 PHD).

FIGURE 6-1.
BUILDING 5200 TANK FARM RECOVERY SYSTEM CAPTURE ZONE



NOTE: Capture zone has been defined as the approximate limits of area with drawdown during extraction pumping. Drawdown is based conservatively on 12 hour pumptest observations conducted by Questa Engineering on September 23, 1989.

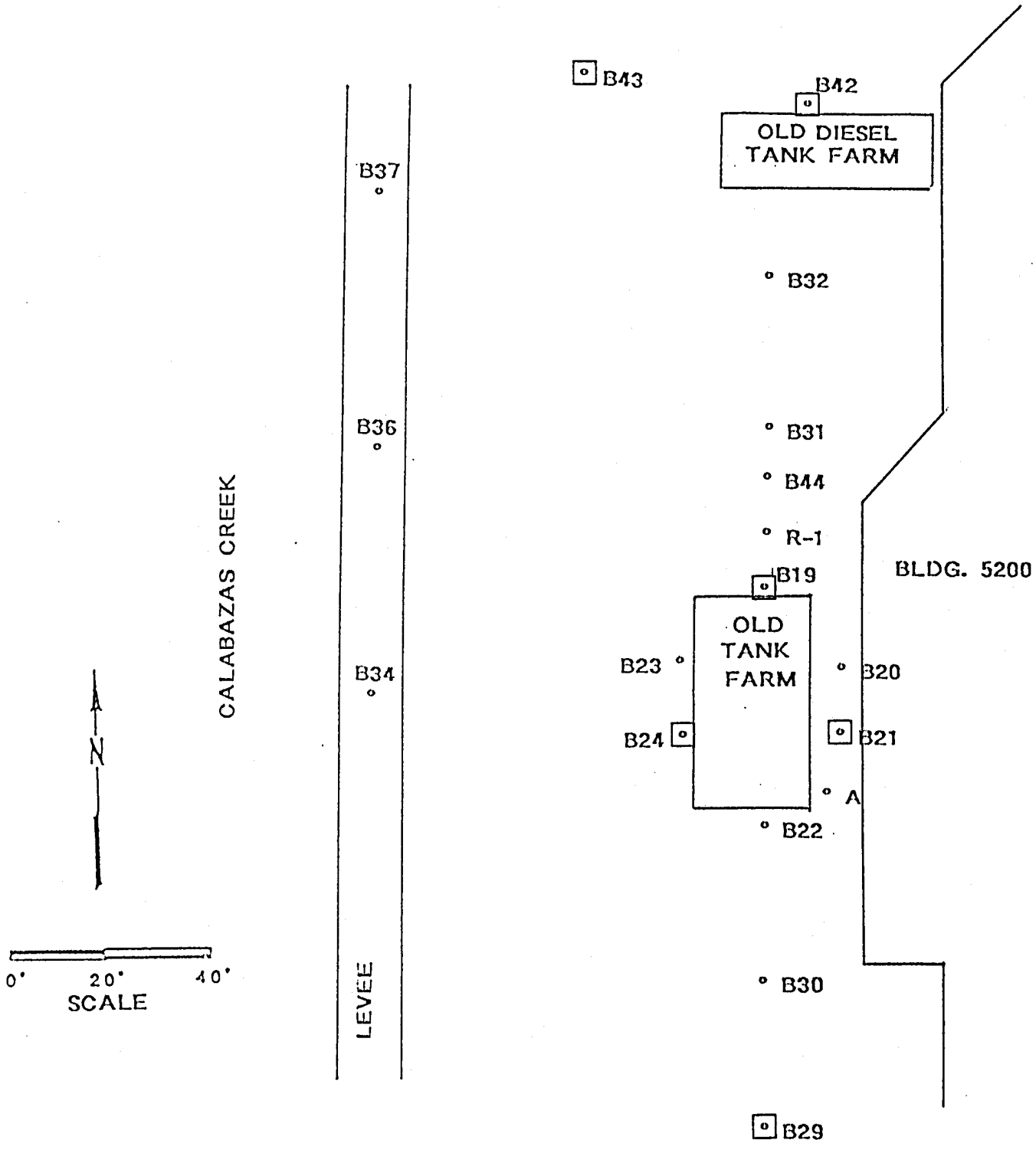
FIGURE 6-2.
BUILDING 5440 TANK FARM RECOVERY SYSTEM CAPTURE ZONE



NUMBERS GIVEN ARE DRAWDOWN IN FEET

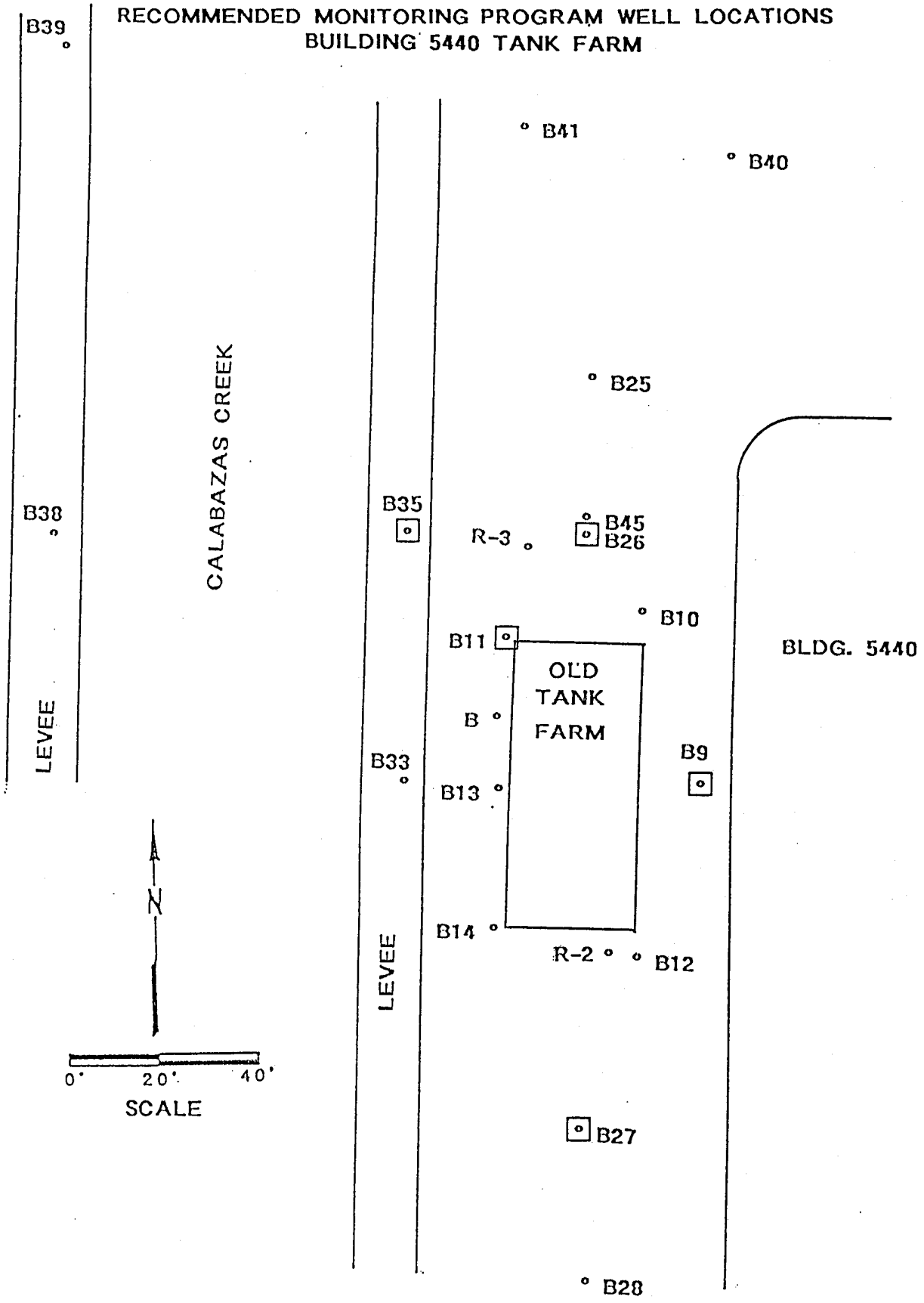
NOTE: Capture zone has been defined as the approximate limits of area with drawdown during extraction pumping. Drawdown is based conservatively on 12 hour pumptest observations conducted by Questa Engineering on September 23, 1989.

FIGURE 6-3.
RECOMMENDED MONITORING PROGRAM WELL LOCATIONS
BUILDING 5200 TANK FARM



= RECOMMENDED SAMPLING POINTS

FIGURE 6-4.
RECOMMENDED MONITORING PROGRAM WELL LOCATIONS
BUILDING 5440 TANK FARM



[o] = RECOMMENDED SAMPLING POINTS

7. Groundwater pumped during the test operations is expected to be of relatively good quality and will be discharged to the sanitary sewer. Other treatment/discharge approaches may be taken as necessary to conform with other permit requirements.

8. A report of results will be submitted to the RWQCB as part of the quarterly self-monitoring report after the three (3) tests have been completed and analytical laboratory results have been received.

Xidex would plan to commence pumping test operations by initiating baseline pre-test operation samples in June 1990 and conduct actual pumping test and sampling during July to September 1990. The project schedule is shown as Figure 6-5 at the end of Section 6.0.

6.2 Evaluation of Cyclic Testing Results

This section describes the procedure to be used for analysis of results and the decision process guiding the groundwater pumping and monitoring operations. Figure 6-6 outlines the decision process in a flowchart format. Following the gathering of operational analytical data, the results will be reviewed and compared against the target levels listed in Table 6-1. If the varied pumping approach results in significant changes in the concentrations of contaminants at the monitoring well measurement points, a longer duration cyclic pumping program will commence. If test results for either facility (5200 or 5440) indicate that such a program will improve the extent of residuals removal, Xidex will initiate a 2-week extraction/2-week equilibration pumping operation.

If no significant changes are observed during the cyclic testing at 5200 PHD, extraction pumping will be curtailed. If no significant changes are observed during the cyclic testing at 5440 PHD, extraction pumping will be continued in the normal operating mode, eight hours pumping followed by a sixteen hour recovery period. Xidex will provide the RWQCB with a brief review of the analytical results in a notification letter describing the

planned mode of continued operation for both sites. Xidex will sample the wells shown on Figure 6.2 and analyze for MEK, acetone, isopropanol, diglyme, and diesel on a quarterly basis. If contaminants are below target levels for one complete year of monitoring at either location, Xidex will curtail the pumping operation at that location. Verification monitoring will be continued (for that location) on a quarterly basis for another complete year. At that point, if contaminant concentrations are still below the target levels the RWQCB will be notified and monitoring will be discontinued. However, if contaminant levels increase and results can be verified, pumping will be re-initiated and Xidex will make decisions on curtailment of pumping and monitoring based on the flowchart in Figure 6-6. Xidex currently reports results on a bimonthly basis. Xidex would convert to a quarterly reporting program beginning January 15, 1990.

6.3 Discharge of Extracted Groundwater

During any extraction well operations which occur after the cyclic testing program, water generated will be used for plant operations in lieu of potable water. Xidex has identified a 100 gpm water flow to a plant air scrubber system as an on-site demand which could be partially supplied by extracted groundwater. Effluent from this operation is sampled routinely as a part of the facility monitoring program. The discharge from the scrubber system to sewer will be conducted in accordance with the limits established by the San Jose/Santa Clara Department of Water Pollution Control.

6.4 Evaluation of Existing Wells

Certain wells have been identified in Section 6.2 for inclusion in the cyclic pumping and longer-term monitoring programs. All wells will be reviewed to determine the suitability for continued use. Any inadequate wells will be identified and destroyed as appropriate. Well response and suitability for continued use will be determined during the cyclic pumping

program. Xidex will provide the RWQCB a schedule of abandonment and well destruction following the field tests and results evaluation by December 15, 1990.

FIGURE 6-5 PROJECT SCHEDULE

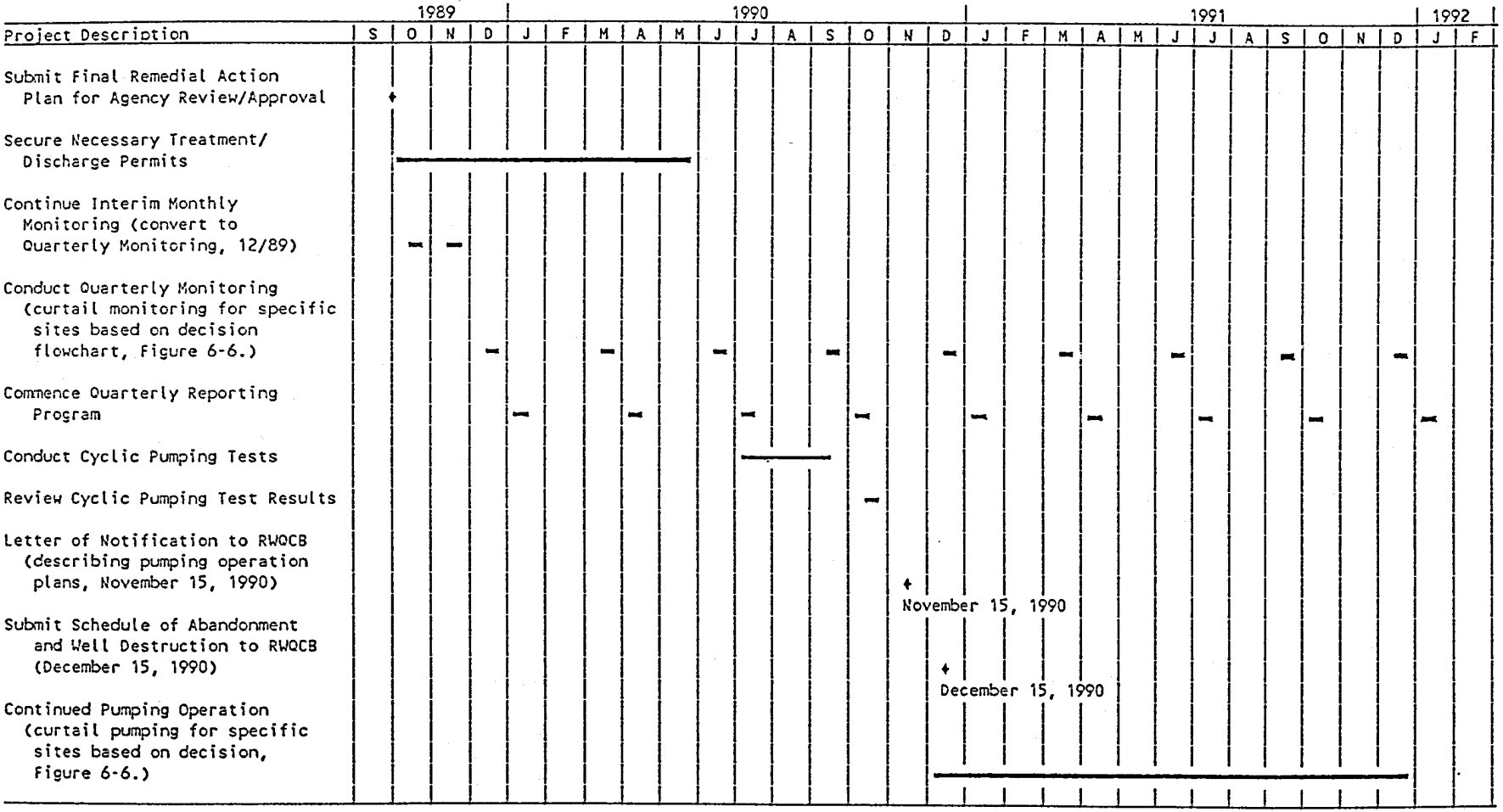
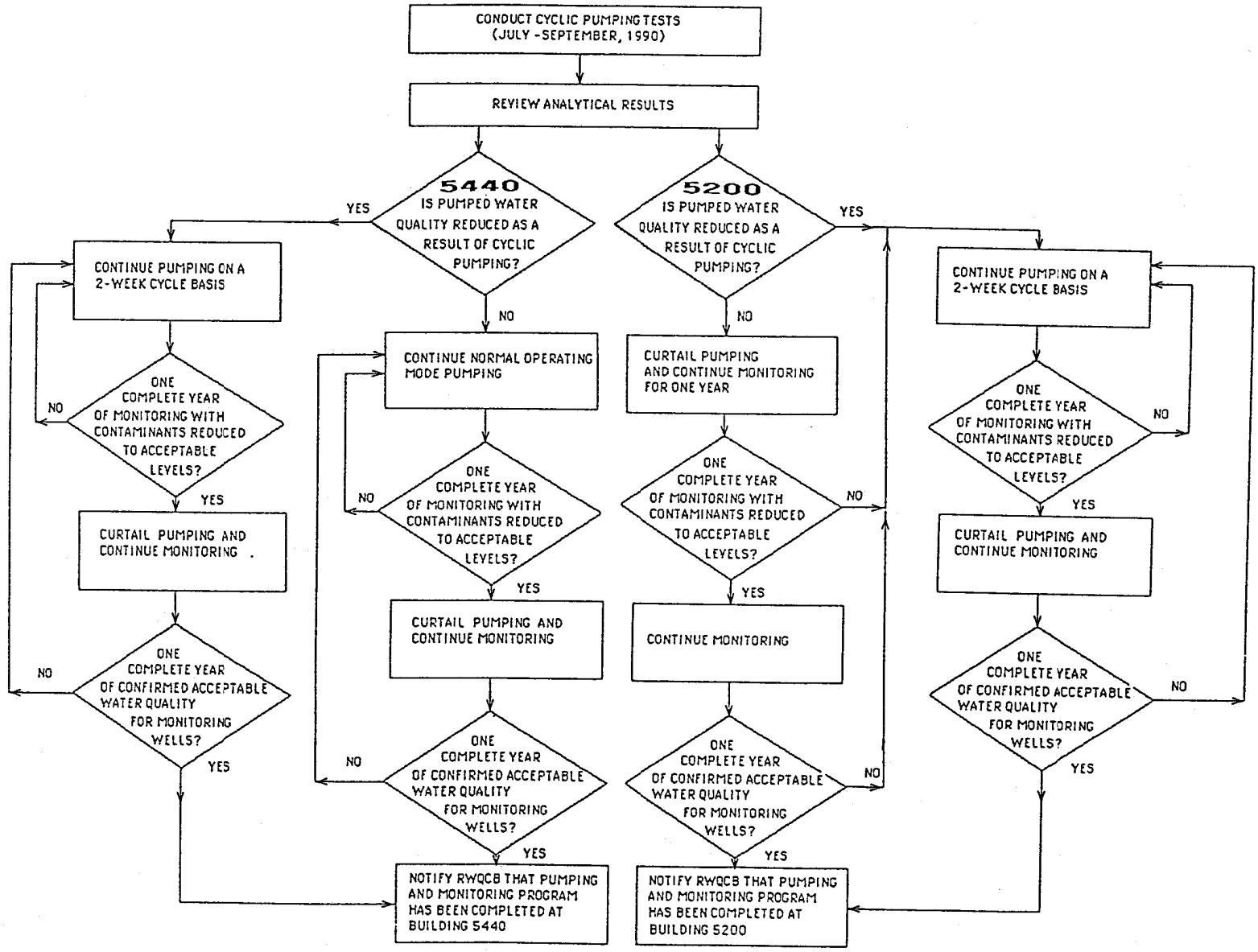


FIGURE 6-6

GROUNDWATER PUMPING AND MONITORING SYSTEM

OPERATION FLOWCHART



REFERENCES

1. Abrams, E. F., K. M. Slimals, D. L. Derkics, D. K. Guinan, and C. V. Fong. 1975. Identification of Organic Compounds in Effluents from Industrial Sources, U.S. EPA 560/3-75-002, Washington, D.C., U.S. Tech. Inform. Serv. PB 241 641.

2. Chou, W. L., R. E. Speece, and R. H. Siddizi. 1979. Acclimation and Degradation of Petrochemical Wastewater Components by Methane Fermentation. Biotechnol. Bioeng. Symp. 8:391-414.

3. Department of Health Services. 1986. The California Site Mitigation Decision Tree Manual. Prepared by the Department of Health Services, Toxic Substances Control Division, Alternative Technology & Policy Development Section.

4. Donaldson, E. C., M. E. Crocker, and F. S. Manning. 1975. Adsorption of Organic Compounds on Cottage Grove Sandstone. BERC/RI-75/4. Bartlesville, OK: Bartlesville Energy Research Center. pp. 16.

5. Garland, G. A. and D. C. Mosher. 1975. "Leachate Effects of Improper Land Disposal." Waste Age, 6(3), 42-48.

6. IT Enviroscience, Report on Solvent Contamination of Soils and Groundwater for Dysan Corporation, Patrick Henry Drive, Santa Clara, California. Prepared for Dysan Corporation, July 9, 1982.

7. Iwamura, Thomas I. 1980. Salt Water Intrusion Investigation in the Santa Clara County Baylands Area, California. San Jose, CA; Santa Clara Valley Water District, September.

8. Karickhoff, S. W. 1984. "Organic Pollutant Sorption in Aquatic Systems." Journal of Hydraulic Engineering, Vol 110 (6), pp. 707-735.

9. Lagoy, P. 1987. "Estimated Soil Ingestion Rates for Use in Risk Assessment," Risk Analysis. 7:355-359

10. MacKay, D., and A. W. Wolkoff. 1973. "Rate of Evaporation of Low Solubility Contaminants from Water Bodies to Atmosphere." Environ. Sci. Technol., 7(7), 611-614.

11. McLaren Environmental Engineering, Report of Chemical Distribution Associated with Underground Storage Facilities at 5200 and 5440 Patrick Henry Drive, Santa Clara, California. Prepared for Dysan Corporation, November, 1984; Addendum, April, 1985.

12. OHMTADS. Oil and Hazardous Materials Technical Assistance Data System.

13. Questa Engineering Corporation, Water Level Monitoring at Dysan Corporation Buildings 5200 and 5440. October 12, 1987, and Groundwater Response During Cyclic Pumping at Dysan." Prepared for Xidex Corporation, August 13, 1986.

14. Rawls, W. J., D. L. Brakensiek, and K. E. Saxton. 1982. Estimation of Soil Water Properties. Transactions of the American Society of Agricultural Engineers. Vol. 25, No. 5, pp. 1316-1320 and 1328.

15. Schaum, J. L. 1984. Risk Analysis of TCDD-Contaminated Soil. Office of Health and Environmental Assessment, EPA 600/8-84-031, U.S. Environmental Protection Agency, Washington, D.C. November.

16. SRC, 1985. CHEMFATE Database, Syracuse Research Corporation.

17. State of California. 1988. Leaking Underground Fuel Tank Field Manual (LUFT Manual). Prepared by Leaking Underground Fuel Tank Task Force, pp.6

18. U.S. EPA. 1976. Investigation of Selected Potential Environmental Contaminants: Ketonic Solvents. EPA-560/2-76-003. Washington, D.C. U.S. EPA,. Office of Toxic Substances.

19. U.S. EPA. 1977. Investigations of Biodegradation and Toxicity of Organic Compound. O.S. Environmental Protection Agency, Washington, D.C. EPA-600/2-79-163.

20. U.S. EPA. 1985. Development of Statistical Distributions of Ranges and Standard Factors Used in Exposure Assessments. OHEA-E-161. Office of Health and Environment Assessment, Washington, D.C.

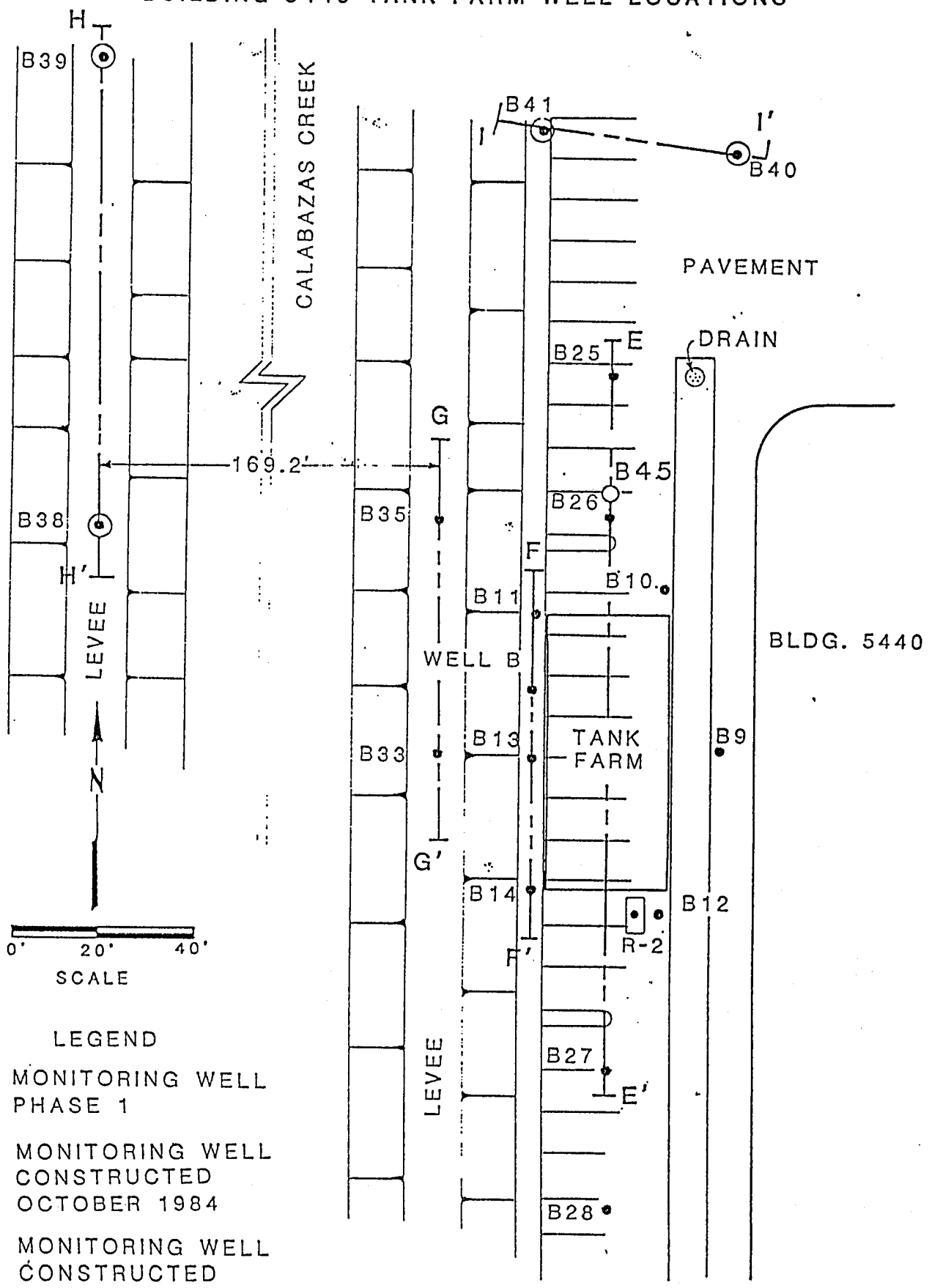
21. U.S. EPA. 1988. Superfund Exposure Assessment Manual. Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, D.C.

22. Wilson, L. D. and T. Iwamura. 1989. Standards for the Construction and Destruction of Wells and other Deep Excavations in Santa Clara County, San Jose, CA. Santa Clara Valley Water District, July.

APPENDIX A

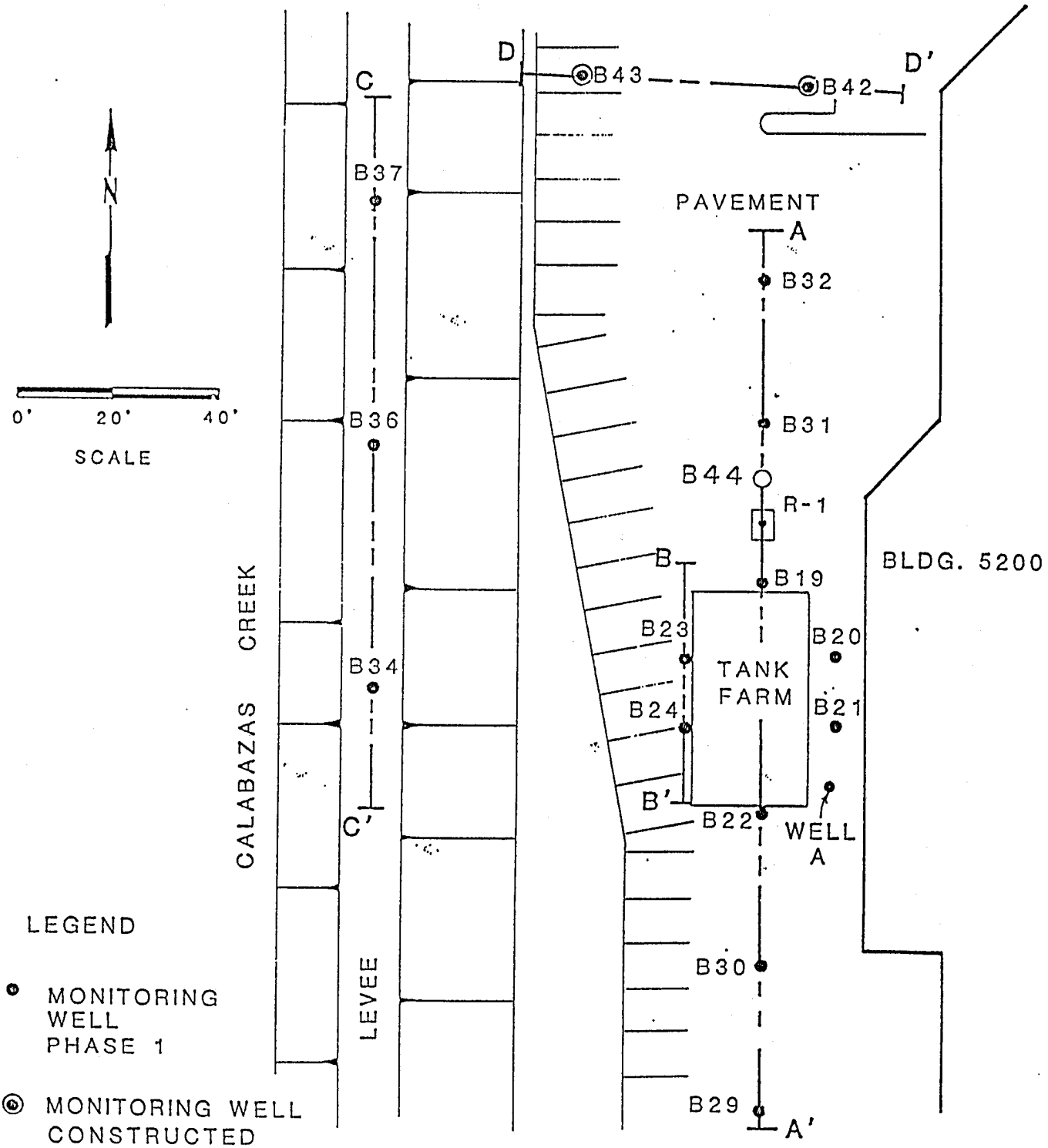
Geological Cross-Sections

FIGURE 1
BUILDING 5440 TANK FARM WELL LOCATIONS

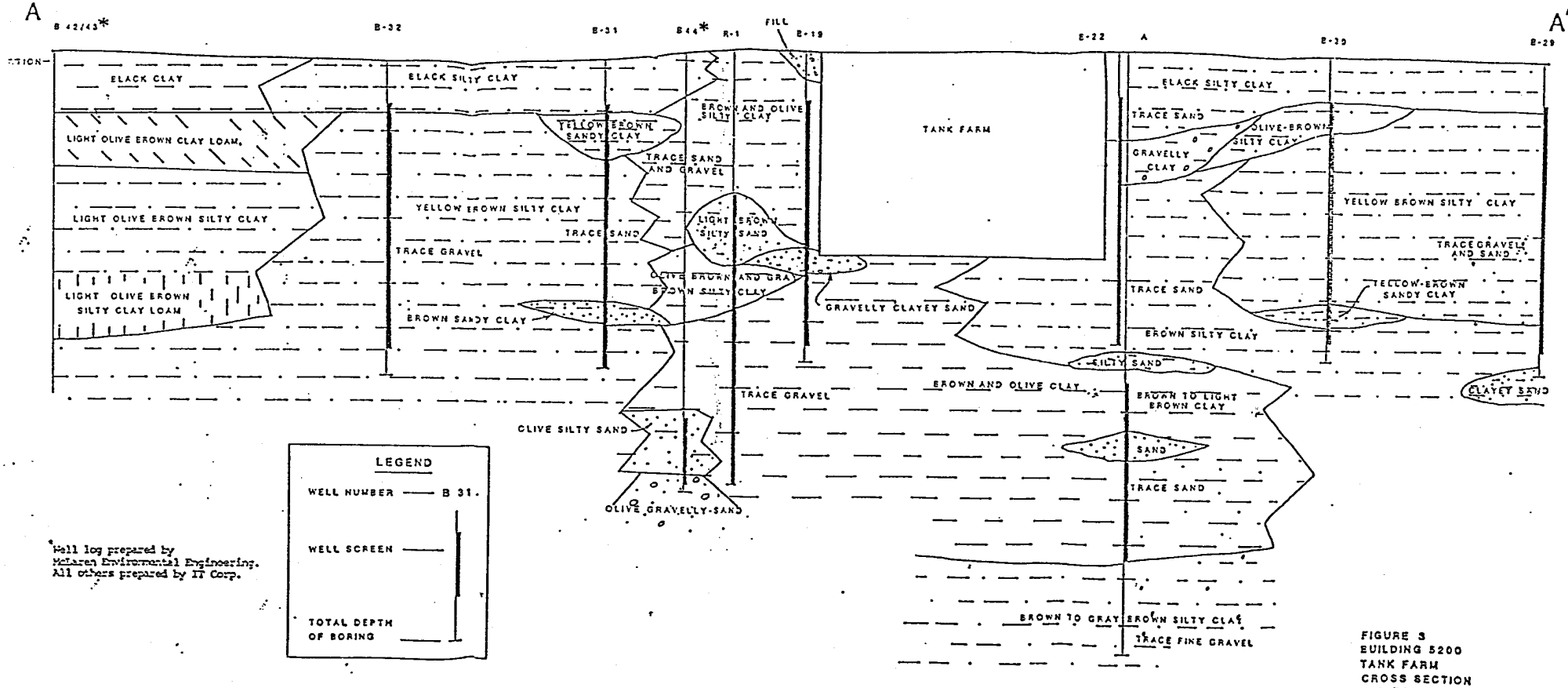


McLaren Environmental Engineering

FIGURE 2
BUILDING 5200 TANK FARM WELL LOCATIONS



McLaren Environmental Engineering



*Well log prepared by McLaren Environmental Engineering. All others prepared by IT Corp.

FIGURE 3
BUILDING 5200
TANK FARM
CROSS SECTION

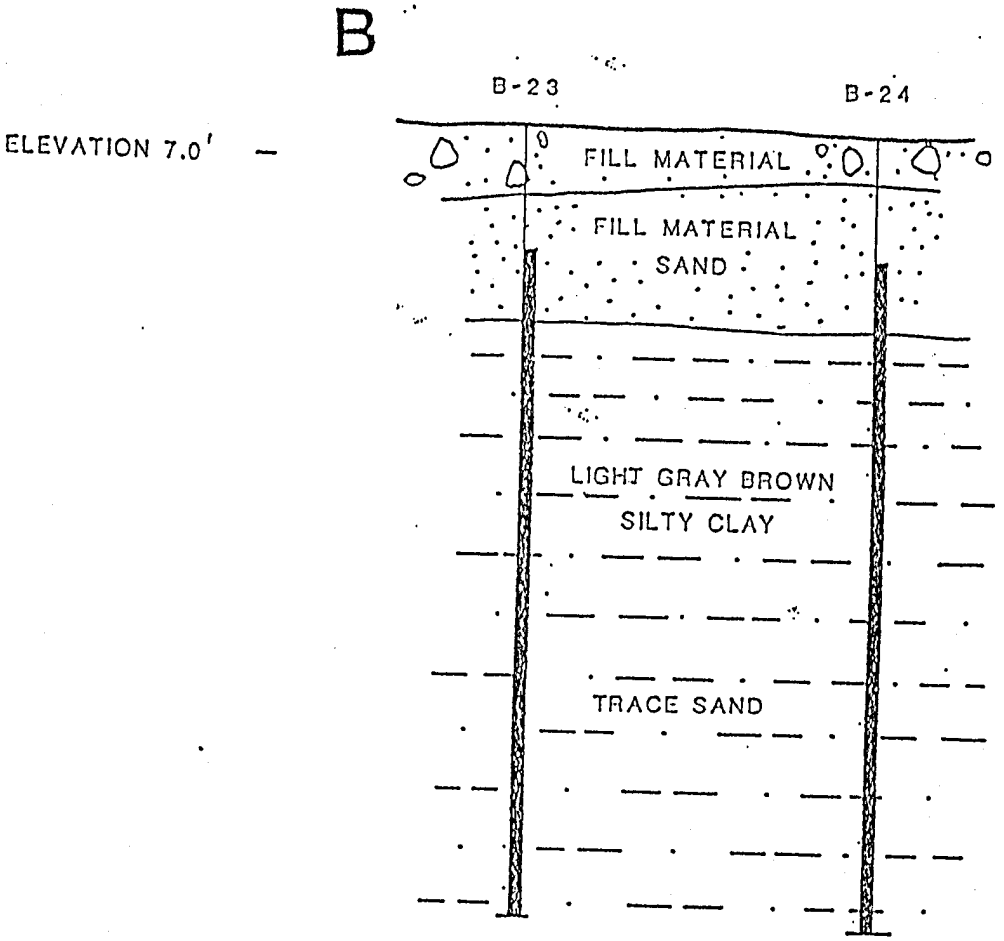


FIGURE 5
BUILDING 5200
TANK FARM
CROSS SECTION

HORIZONTAL SCALE : 1"- 10'
VERTICAL SCALE: 1"- 5'

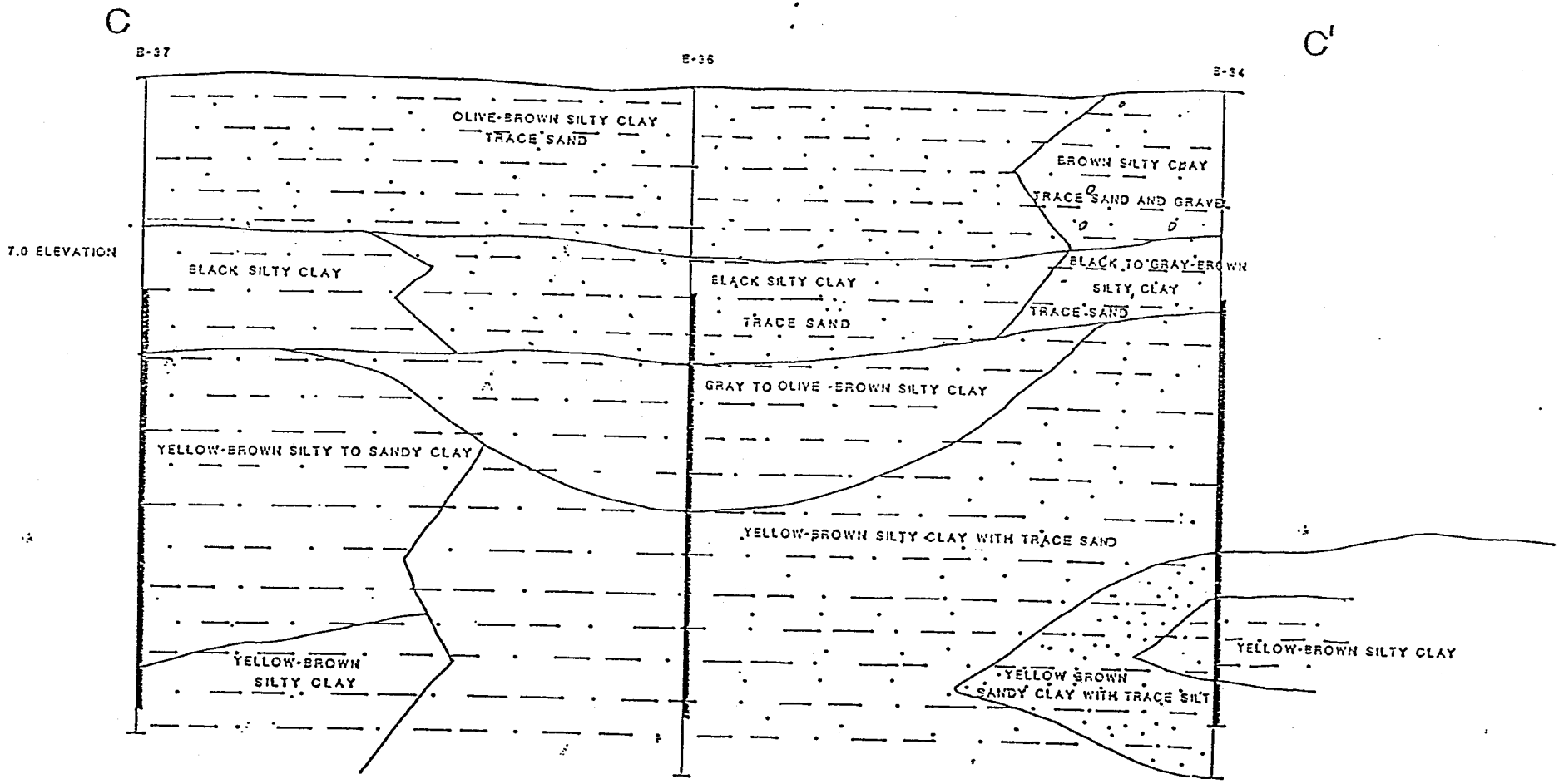


FIGURE 6
BUILDING 5200
TANK FARM
CROSS SECTION

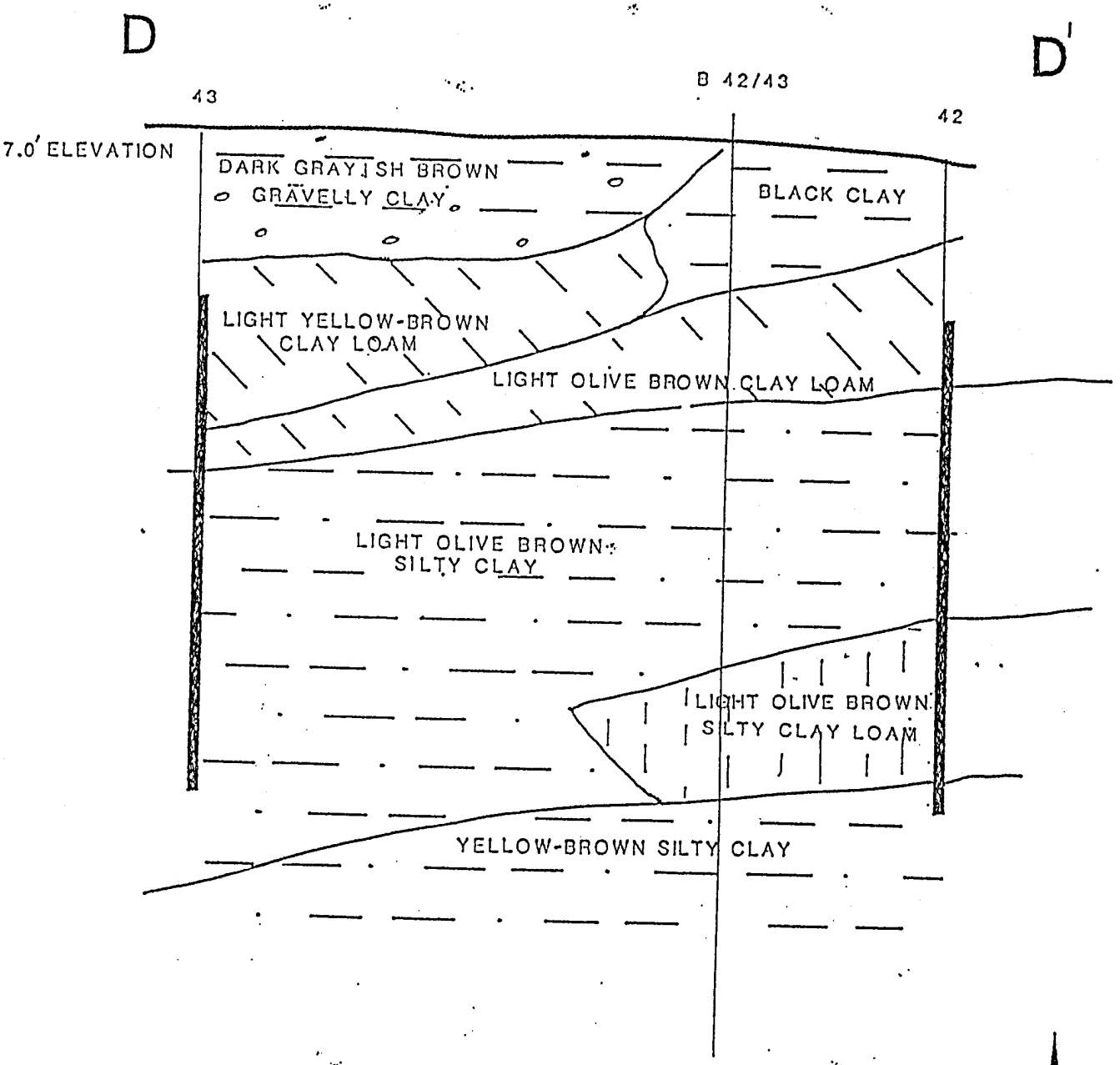
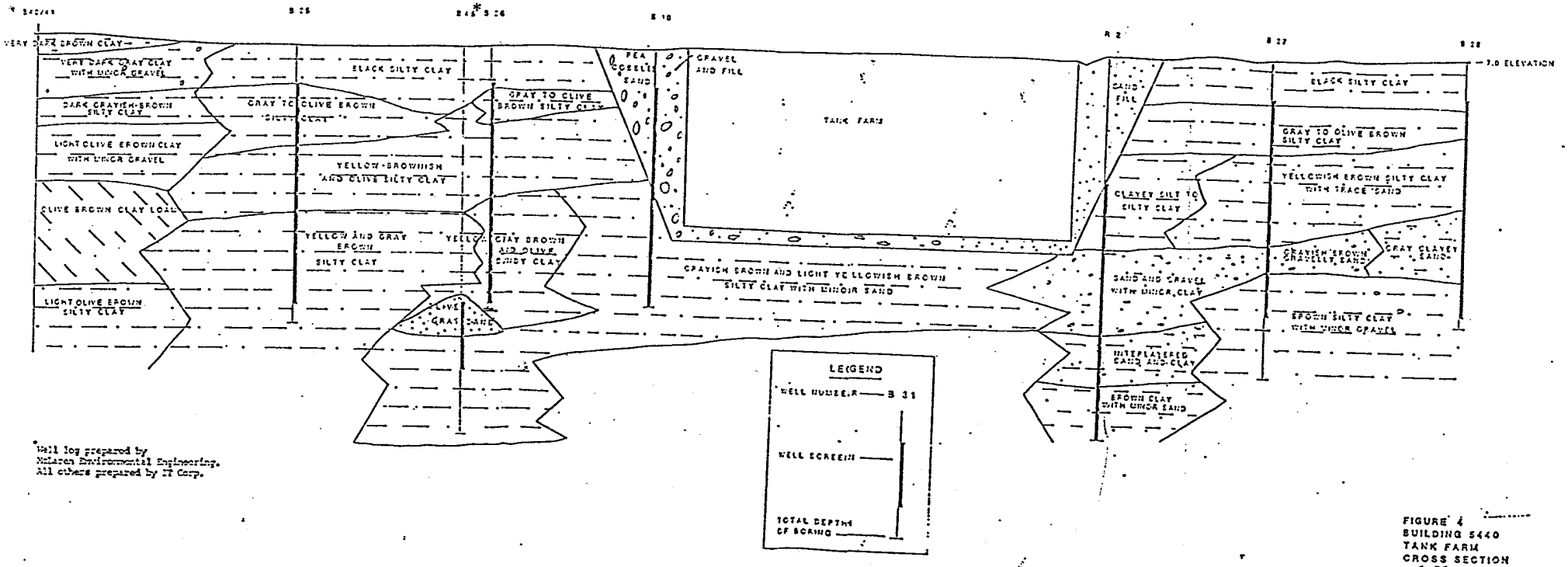


FIGURE 7
BUILDING 5200
TANK FARM
CROSS SECTION

HORIZONTAL SCALE: 1"-10'
VERTICAL SCALE: 1"-5'



*Well log prepared by McLaren Environmental Engineering. All others prepared by IT Corp.

FIGURE 4
BUILDING 5440
TANK FARM
CROSS SECTION

F

F'

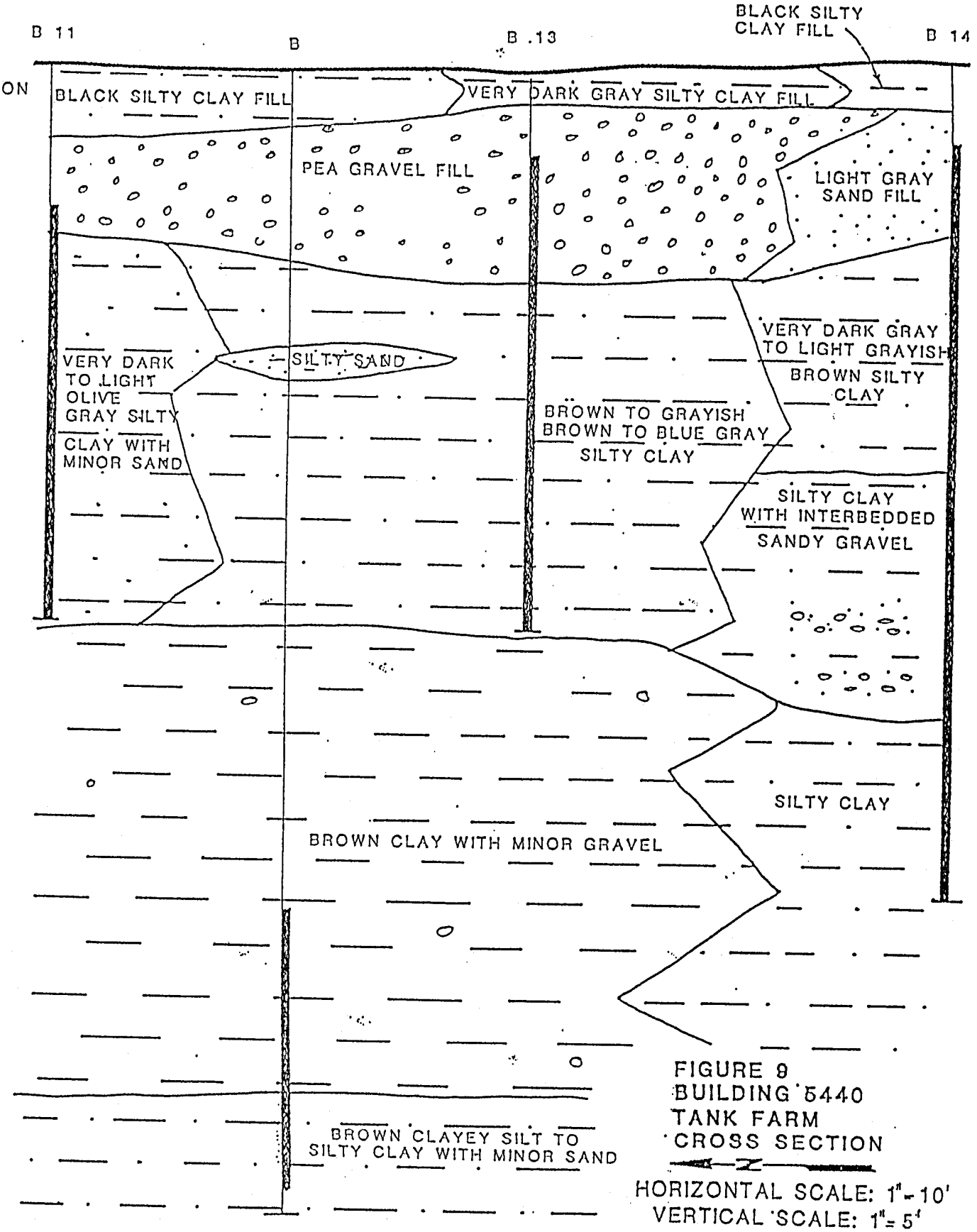


FIGURE 9
BUILDING 5440
TANK FARM
CROSS SECTION

HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=5'

G

G'

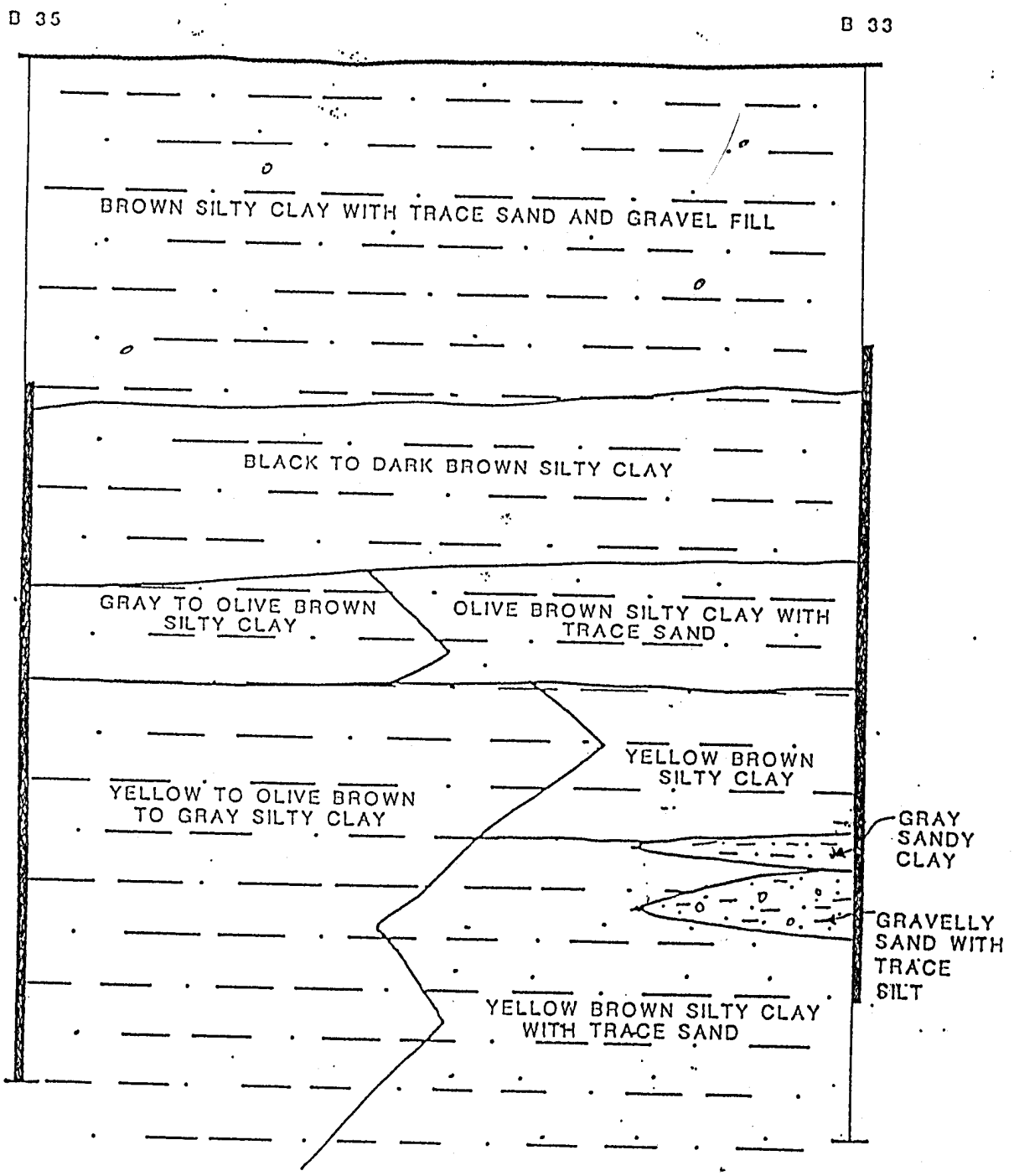
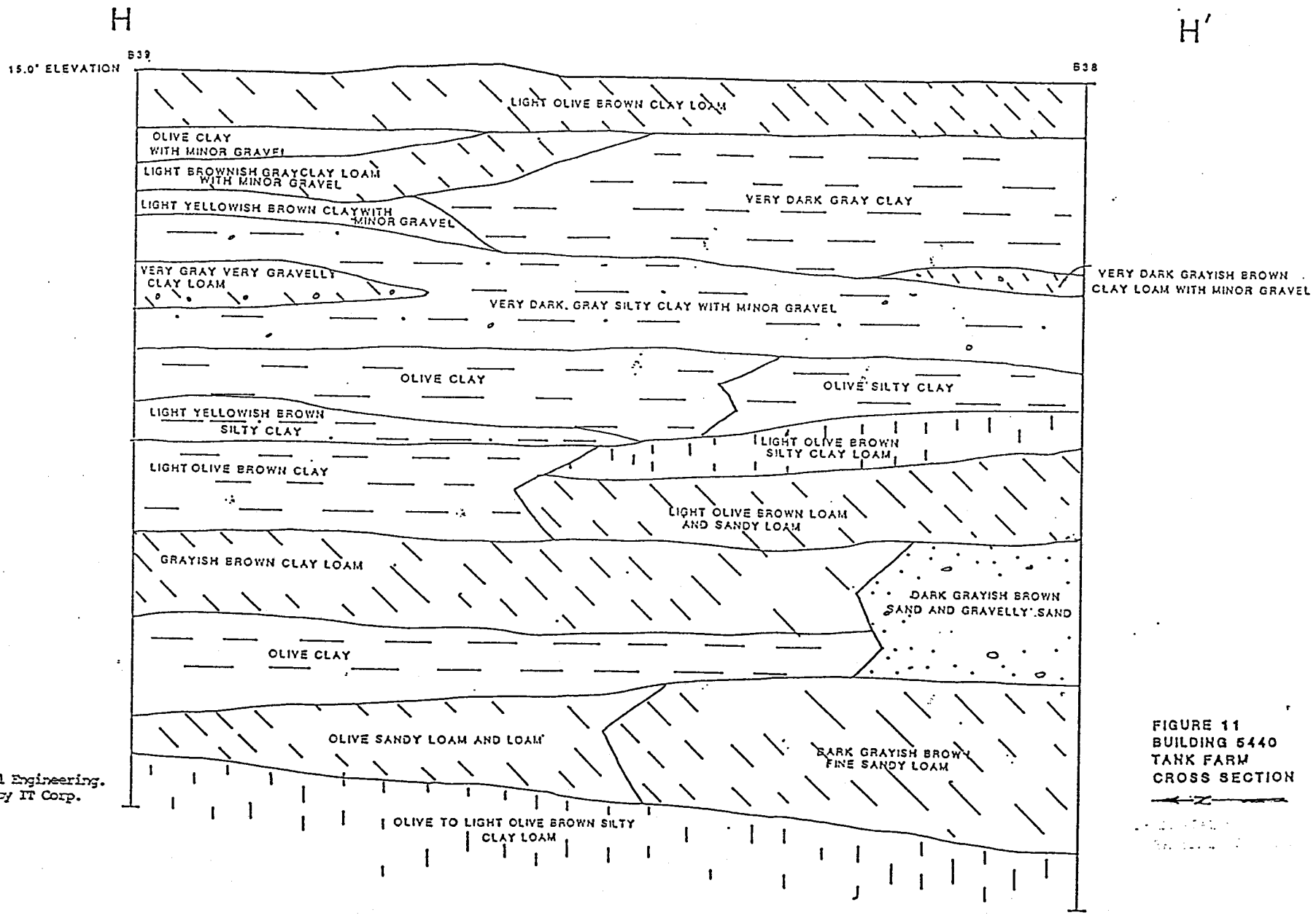


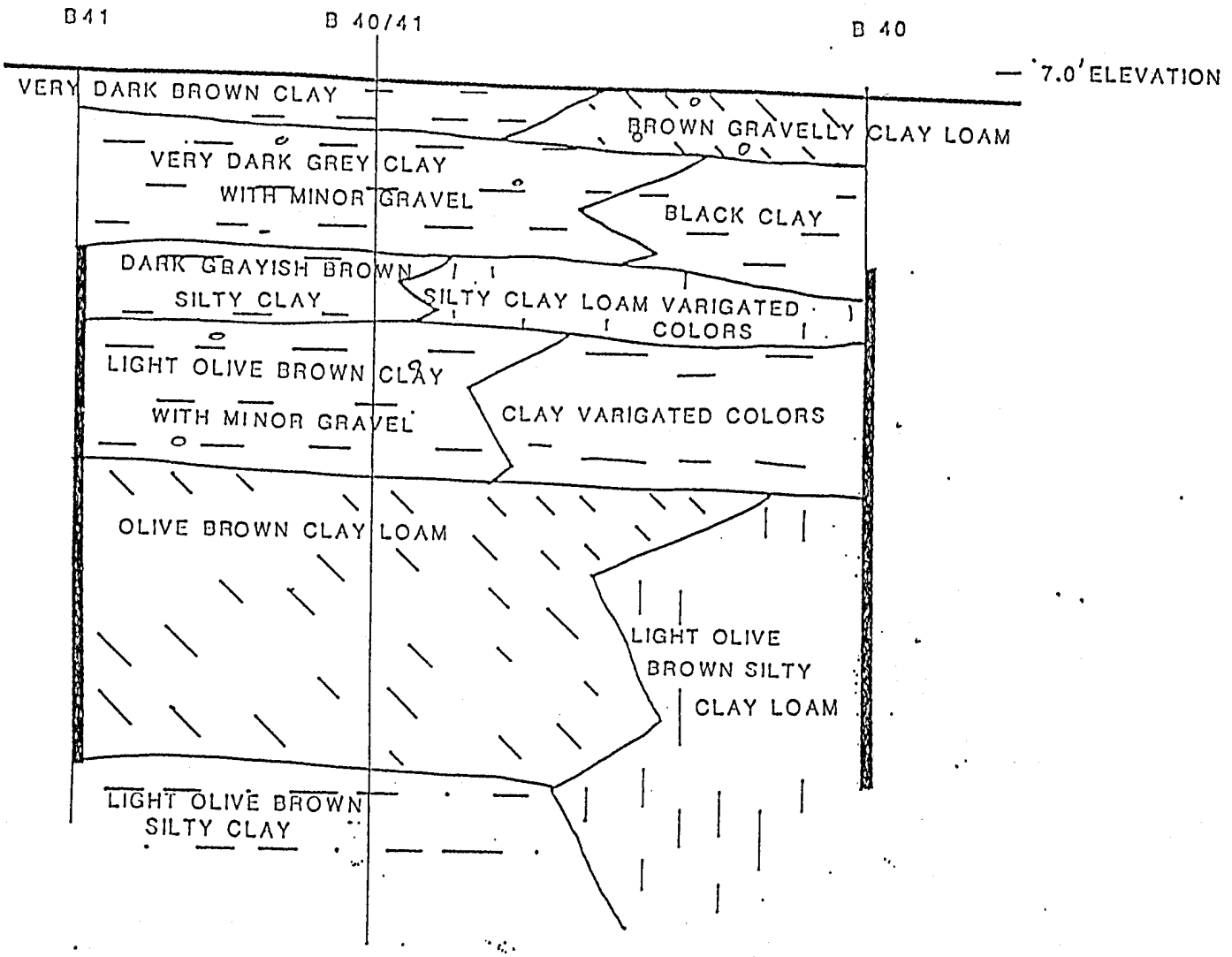
FIGURE 10
BUILDING 5440
TANK FARM
CROSS SECTION

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



Well log prepared by McLaren Environmental Engineering. All others prepared by IT Corp.

FIGURE 11
BUILDING 5440
TANK FARM
CROSS SECTION



*Well log prepared by McLaren Environmental Engineering. All others prepared by IT Corp.

FIGURE 12
BUILDING 5440
TANK FARM
CROSS SECTION
HORIZONTAL SCALE: 1"- 10'
VERTICAL SCALE: 1"- 5'

APPENDIX B

Groundwater Response During Cyclic Pumping

Questa Engineering Corporation
CIVIL, ENVIRONMENTAL & AGRICULTURAL ENGINEERS

August 13, 1986

Mr. Eric Terhorst
Xidex Corporation
Dysan Division
305 Soquel
Sunnyvale, CA

Subject: Groundwater Response During Cyclic Pumping At Dysan

Dear Eric:

As requested, our firm monitored water levels in selected monitoring and extraction wells at Dysan Division during a three day test period, July 14 to 16, 1986. Water levels were monitored to gauge the response of the water table in the vicinity of Building 5200 and Building 5440 tank farms during extraction of groundwater for treatment. Provided here is a summary of monitoring results.

Figures 1 and 2 show well locations at each tank farm. A summary of pumping data are provided in Table 1. Three drawdown-recovery graphs have been prepared to illustrate water level fluctuations: Figure 3 shows tidal influences at Well B-15; Figure 4 shows drawdown curves at Building 5440 tank farm, and Figure 5 shows drawdown-recovery curves at Building 5200 tank farm. The following are apparent from these plots:

- Figure 3 shows a general decline in the water table combined with cyclic fluctuations due to tidal influences exerted by nearby Calabazas Creek. The general decline of the water table is likely due to the effect of pumping at the 5200 tank farm which, over time, affects the water table up to several hundred feet from the extraction well, R-1. A similar condition could be expected at the 5440 tank farm area.

- Figure 4 shows water table fluctuations in response to pumping, creating a zone of influence spreading more or less radially from each of the two pumped wells. Tidal influences are also apparent at some of the monitoring wells around Building 5440 tank farm; however, the effect is small in comparison to the pumped drawdown.

- Figure 5 shows less pronounced drawdown curves, and greater degree of tidal influence in and around the Building 5200 tank farm as compared to the Building 5440 tank farm; this is primarily due to the lower extraction rate at Building 5200 (7.4 gpm) compared with the 5440 tank farm (14.35 gpm).

1220 BRICKYARD COVE ROAD
P.O. BOX 356 • POINT RICHMOND, CALIFORNIA 94807 • (415) 236-6114

Also provided (see Figure 6) is a north-south cross section, illustrating the overlapping of wells R-2 and R-3. As anticipated, these wells will act in concert to facilitate extraction of water and contaminants from the tank farm backfill and surrounding soil zones.

Analysis of pumping and drawdown data during this test supports our earlier assessment of potential well yields. Pumping rates of about 7 gpm can be sustained at each of the extraction wells.

With respect to the drawdown and recovery periods, the monitoring data indicate that a relative equilibrium between extraction and recharge to the well is established about 6 to 8 hours after pump start-up under the prescribed rates. Recovery curves, on the other hand, indicate a much longer time (e.g., 12 to 18 hours) for the water table to return to its original level. This would suggest an optimum operation cycle of 6 to 8-hours pumping followed by a 16 to 18-hour recovery period. This type of pumping schedule would also have the following advantages:

1. Full water table recovery between pumping would very likely increase the leaching of contaminants from the soil, and probably shorten the overall time period for groundwater clean-up.

2. The pumping and treatment operation could be confined to normal business hours which would provide for greater attention to monitoring and maintenance of the equipment and overall operation.

Please call if you have any questions concerning the test results and conclusions.

Sincerely,

Norman N. Hantzsche, P.E.
Managing Engineer

RCE 24750

Ref. 8679L14

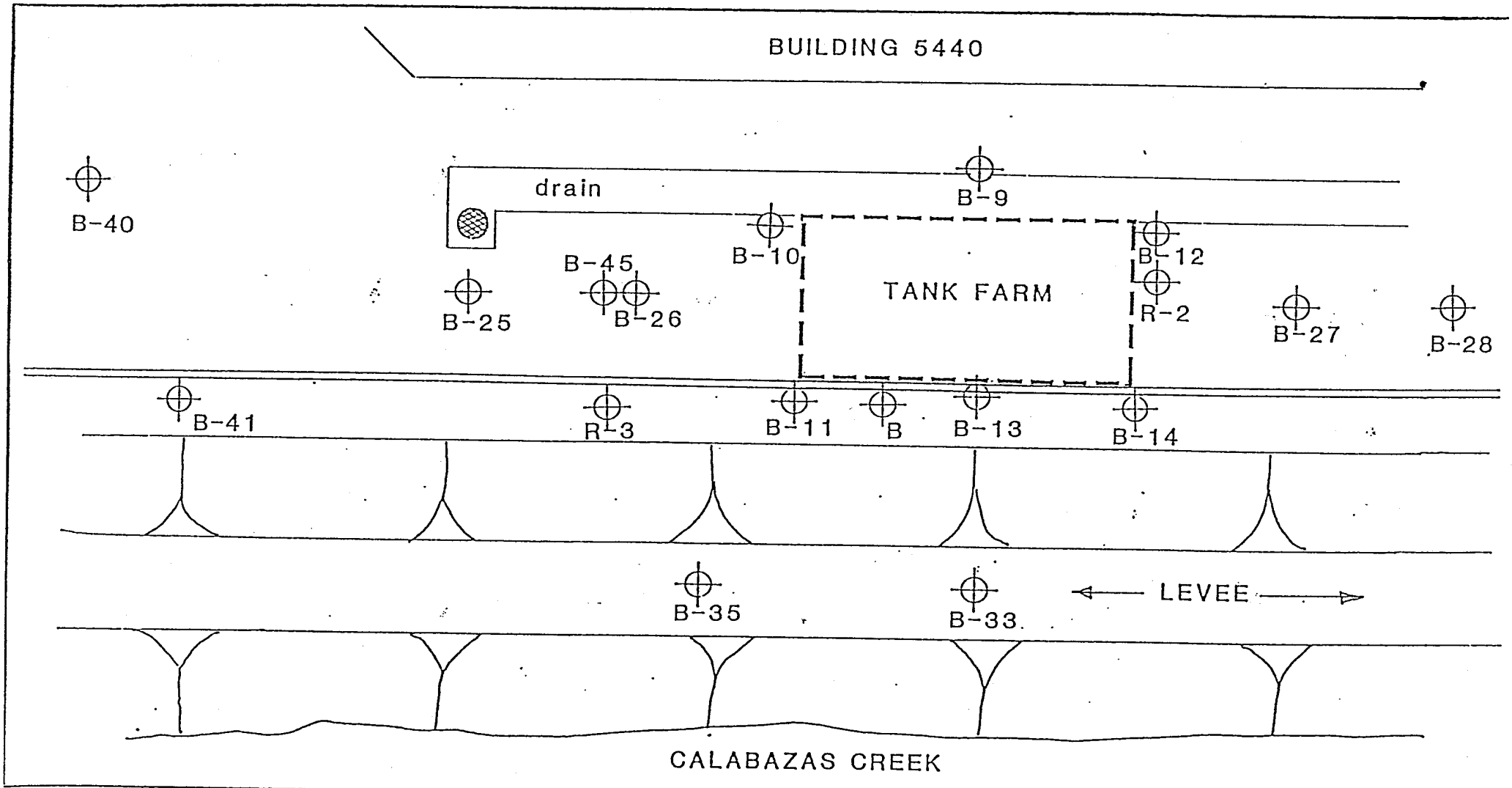

BUILDING 5440
B-40
drain
B-9
B-10
B-12
B-45
B-25
B-26
TANK FARM
R-2
B-27
B-28
B-41
R-3
B-11
B
B-13
B-14
B-35
B-33
LEVEE
CALABAZAS CREEK
0 10' 20' 30' 40'
scale 1"= 26'
WELL LOCATIONS
LEGEND
Well
FIGURE 1

FIGURE 2
BUILDING 5200 TANK FARM WELL LOCATIONS
from 1984 McLaren report

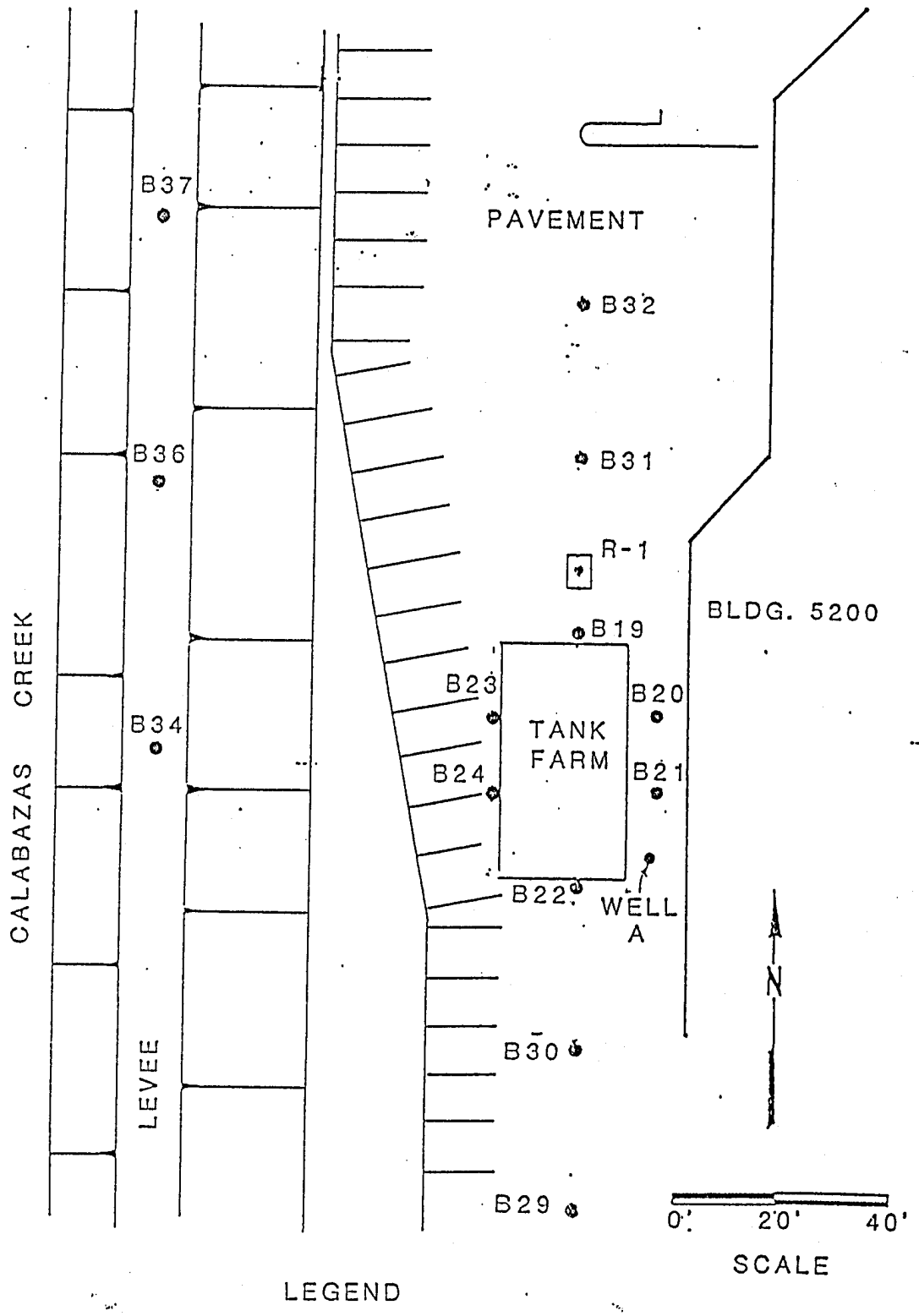


TABLE 1
Well Extraction Data

Date	Time	Flow Meter Readings (Gallons) P-1 (R-3)	P-2 (R-2)	P-3 (R-1)
July 14	9:20	89,435	129,316	133,010
	21:30	93,823	133,508	137,351
Hours	10.5			
Gallons Pumped		4,388	4,192	4,341
July 15	9:00	93,823	133,508	137,351
	21:00	99,318	138,683	142,910
Hours	12			
Gallons Pumped		5,495	5,175	5,459
July 16	9:00	99,318	138,683	142,910
	21:00	104,756	143,695	148,423
Hours	12			
Gallons Pumped		5,438	5,012	5,513
Total Hours	34.5			
Total Gallons Pumped		15,321	14,379	15,313
Average Yield (GPM)		7.4	6.95	7.4

Total Gallons Pumped: 45,013 Gallons
Average Combined Yield: 21.75 GPM

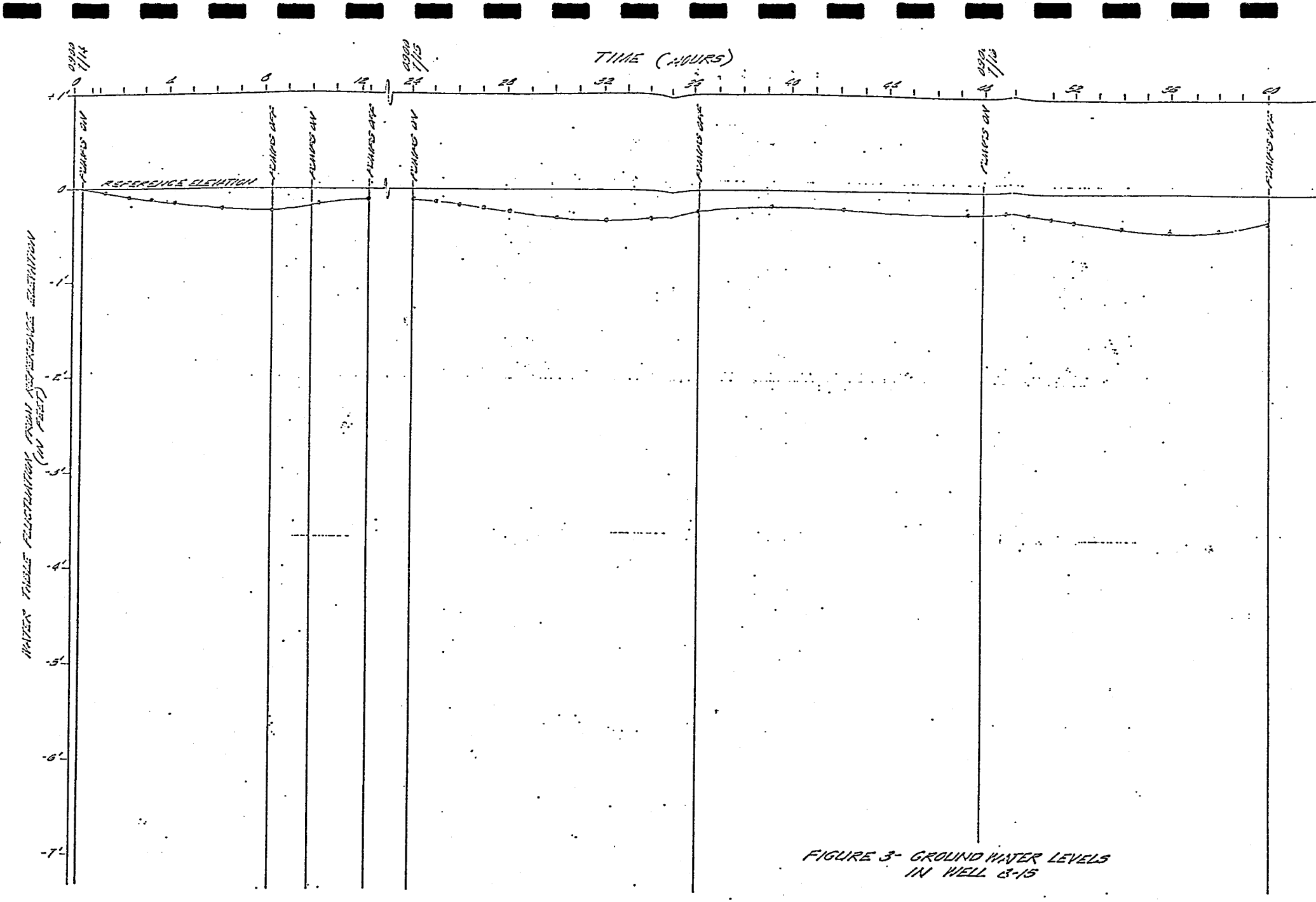


FIGURE 3- GROUND WATER LEVELS IN WELL C-15

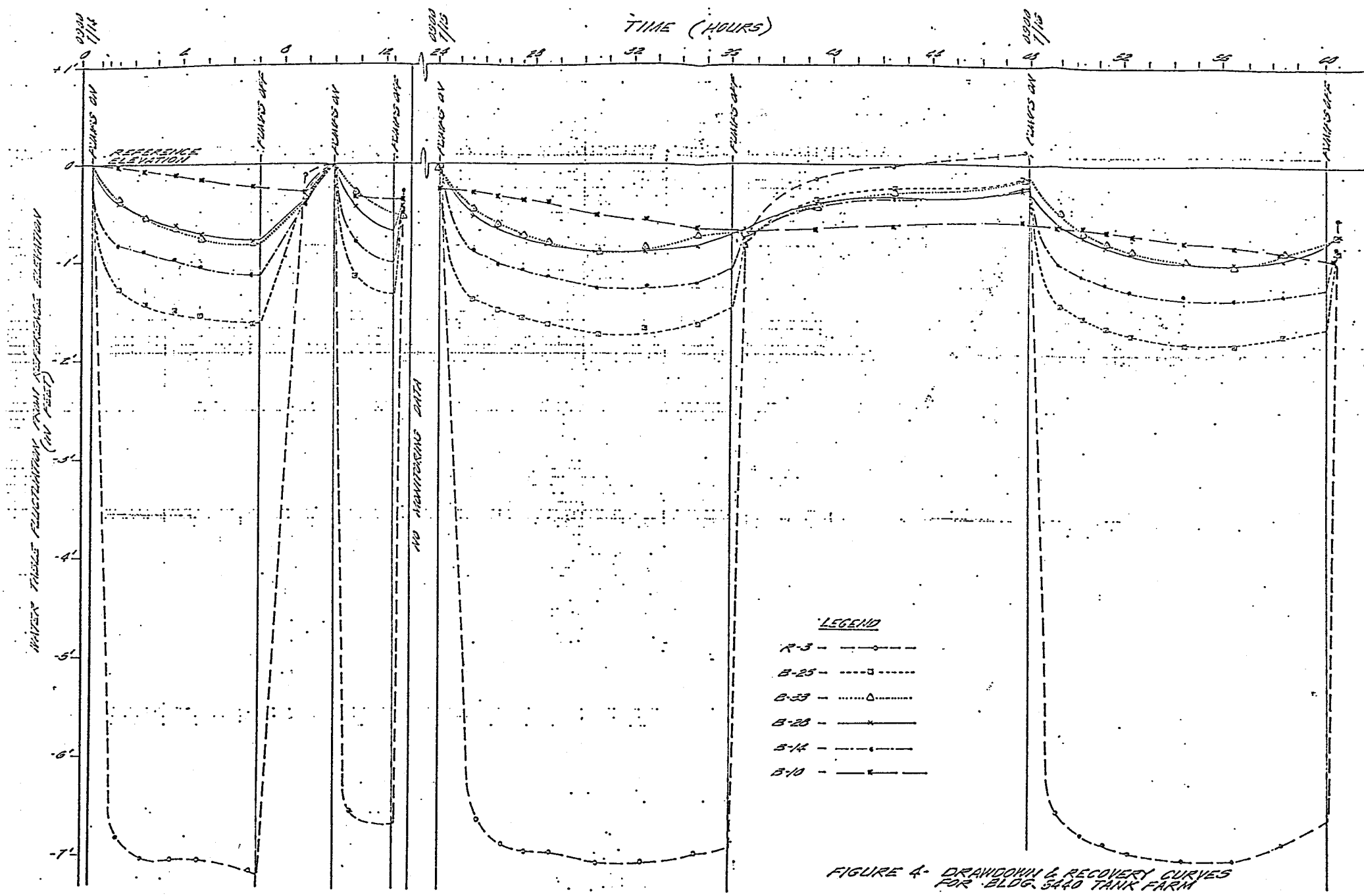


FIGURE 4- DRAWDOWN & RECOVERY CURVES FOR BLDG. 5460 TANK FARM

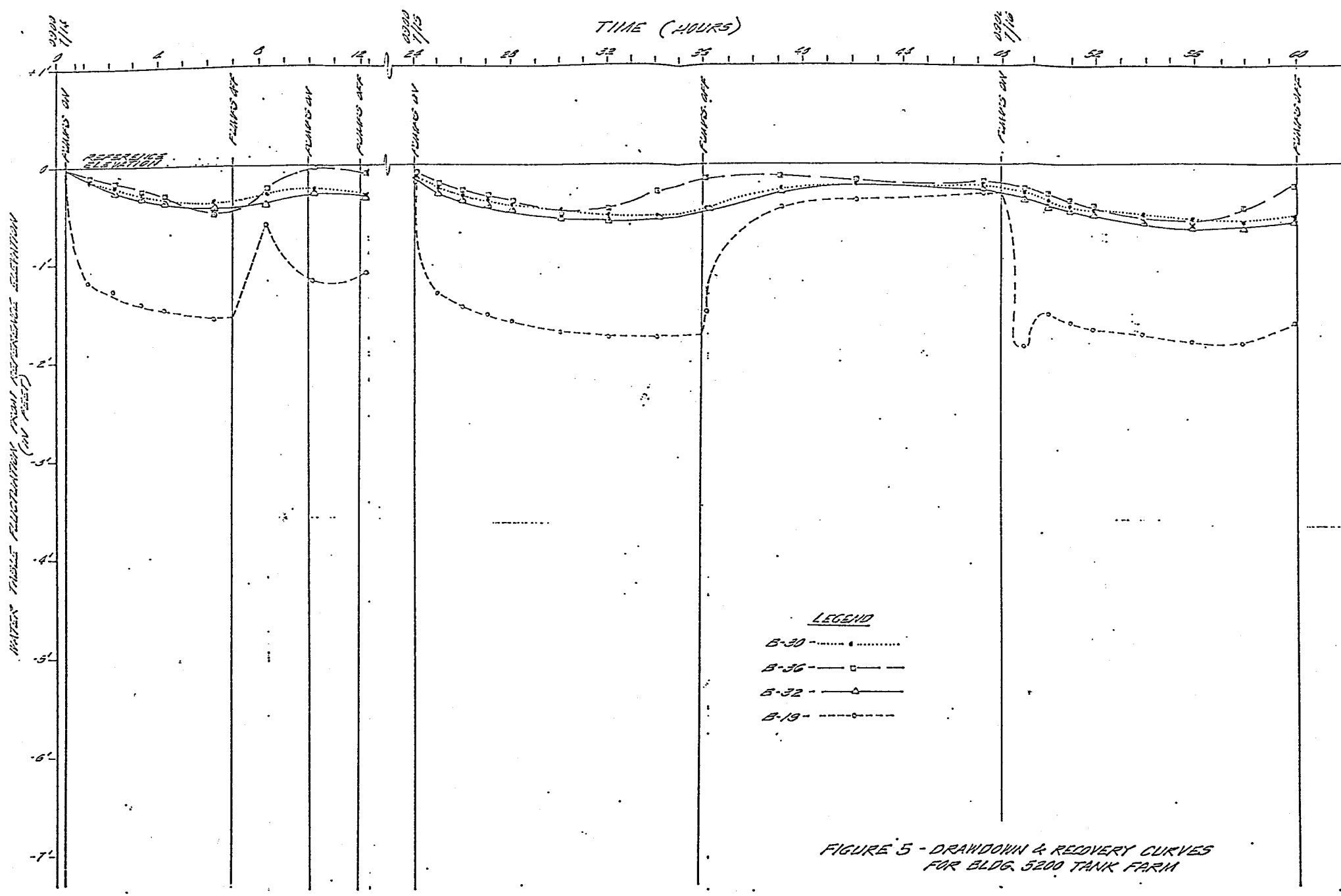
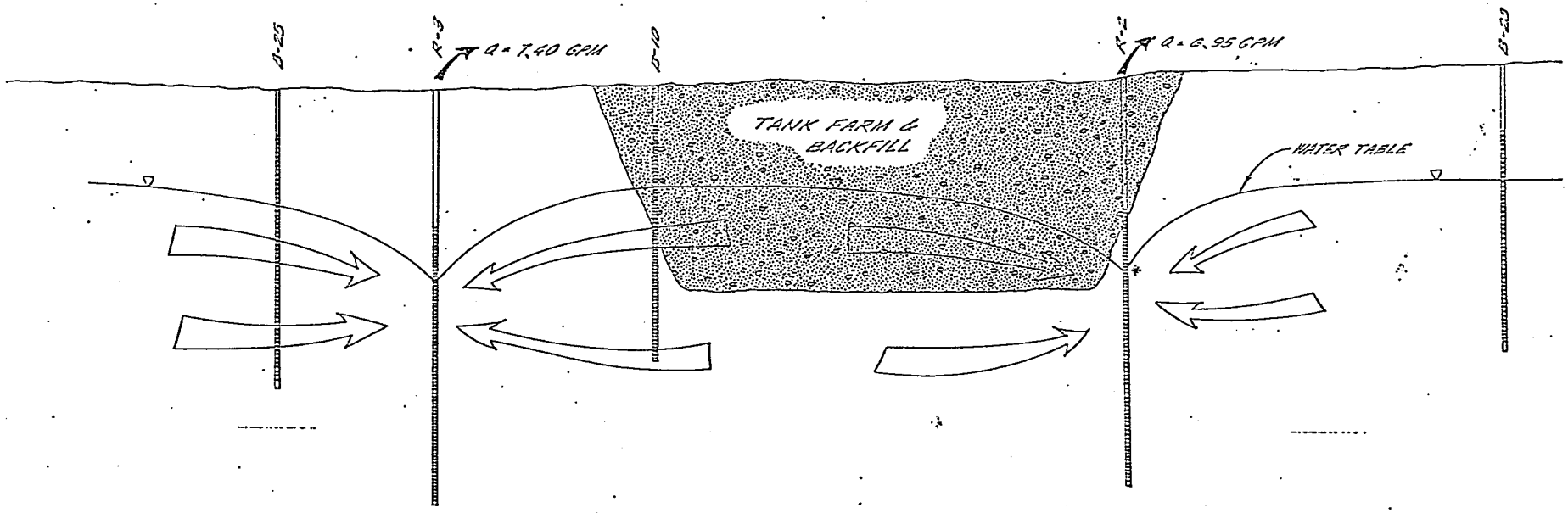
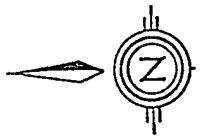


FIGURE 5 - DRAWDOWN & RECOVERY CURVES FOR BLDG. 5200 TANK FARM





* - APPROXIMATED

SCALE
VERTICAL IS 2X EXAGGERATION

FIGURE 6 - N-S CROSS-SECTION OF BLDG 5440 TANK FARM DURING PUMPING (7-15-86 1540 HRS.)

Questa Engineering Corporation
CIVIL, ENVIRONMENTAL & AGRICULTURAL ENGINEERS

October 12, 1987

Xidex Corporation, Dysan Division
305 Soquel Way
Sunnyvale, CA 94806

Attention: Mr. Eric Terhorst

Subject: Water Level Monitoring at Dysan Buildings 5200 and 5440

Dear Eric:

Provided here are results of a series of groundwater level readings taken at Dysan Corporation's tank farms at 5200 and 5440 Patrick Henry Drive in Santa Clara on September 23, 1987. The water level readings were made during the 12-hour extraction pumping cycle to confirm the pumping influence on the water table near each tank farm. Two sets of water level readings were taken as follows:

- Prior to pump start-up (0900 hours); and,
- before pump shut-down (2100 hours).

The readings were converted to groundwater elevations and plotted on a map of each tank farm. Approximate contours were than drawn to illustrate the surface of water table at the time of each reading. The results for buildings 5440 and 5200 are displayed in Figure 1A and B and 2A & B, respectively. A field data summary sheet is attached for reference.

The contours illustrated in Figure 1A indicate that the backfill materials in the building 5440 tank farm may be acting as a reservoir, releasing water (stored in the pore spaces from the preceding high tide) as the water table on the north and west sides of the tank farm drop in response to the tidal fluctuation in Calabazas Creek.

The monitoring results for the two tank farms indicate that water table responses to cyclic pumping wells R-1, 2 & 3 have not changed significantly since monitoring began in November, 1986.

If you have any further questions regarding our monitoring results and evaluation, please call Patrick Casey or myself at (415) 236-6114.

Sincerely,

Norman N. Hantzsche, P.E.
Managing Engineer

RCE 24750

Enclosures

Ref.: 86079L19

1220 BRICKYARD COVE ROAD
P.O. BOX 356 • POINT RICHMOND, CALIFORNIA 94807 • (415) 236-6114

WATER ELEVATIONS IN WELLS AT DYSAN

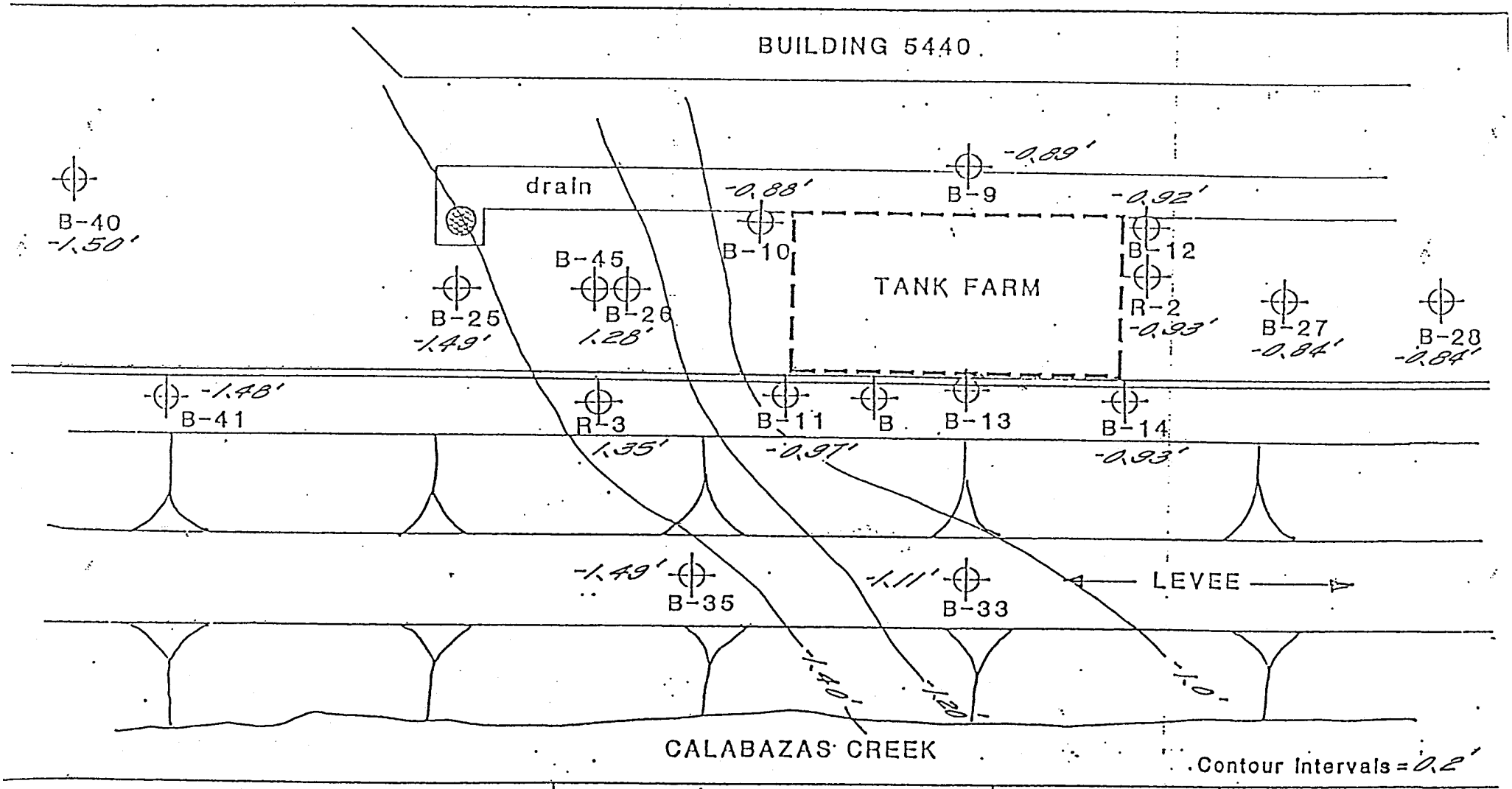
5200 Tank Farm
9/23/87

Project Number: 8679

Well Number	Well Head Elevation (feet)	0900 Hours		2100 Hours					
		Depth To Water Level (feet)	Water Level Elevation (feet)	Depth To Water Level (feet)	Water Level Elevation (feet)	Depth To Water Level (feet)	Water Level Elevation (feet)	Depth To Water Level (feet)	Water Level Elevation (feet)
R-1	4.99	3.94	1.05	8.91	-3.92	0.00	0.00	0.00	0.00
B-15	6.50	5.73	0.77	5.90	0.60	0.00	0.00	0.00	0.00
B-19	7.86	6.54	? 1.32	7.79	0.07	0.00	0.00	0.00	0.00
B-21	8.02	6.89	1.13	7.49	0.53	0.00	0.00	0.00	0.00
B-22	7.90	6.66	1.24	7.19	0.71	0.00	0.00	0.00	0.00
B-23	7.76	6.60	1.16	7.18	0.58	0.00	0.00	0.00	0.00
B-24	7.53	6.40	? 1.13	7.13	? 0.41	0.00	0.00	0.00	0.00
B-29	7.69	6.44	1.25	6.69	1.00	0.00	0.00	0.00	0.00
B-30	7.63	6.41	1.22	6.73	0.90	0.00	0.00	0.00	0.00
B-31	6.96	5.97	0.99	6.94	0.02	0.00	0.00	0.00	0.00
B-32	6.82	5.91	0.91	6.32	0.50	0.00	0.00	0.00	0.00
B-34	16.12	15.03	1.09	15.42	0.70	0.00	0.00	0.00	0.00
B-36	15.85	14.91	0.94	15.20	0.65	0.00	0.00	0.00	0.00
B-37	15.67	14.74	0.93	15.00	0.67	0.00	0.00	0.00	0.00

5440 Tank Farm
9/23/87

Well Number	Well Head Elevation (feet)	0900 Hours		2100 Hours					
		Depth To Water Level (feet)	Water Level Elevation (feet)	Depth To Water Level (feet)	Water Level Elevation (feet)	Depth To Water Level (feet)	Water Level Elevation (feet)	Depth To Water Level (feet)	Water Level Elevation (feet)
R-2	3.92	4.85	-0.93	6.33	-2.41	0.00	0.00	0.00	0.00
R-3	5.69	7.04	-1.35	12.50	-6.81	0.00	0.00	0.00	0.00
B-9	5.97	6.86	-0.89	7.58	-1.61	0.00	0.00	0.00	0.00
B-10	5.99	6.88	-0.88	7.38	-1.39	0.00	0.00	0.00	0.00
B-11	6.36	7.33	-0.97	7.98	-1.62	0.00	0.00	0.00	0.00
B-12	6.23	7.15	-0.92	8.03	-1.80	0.00	0.00	0.00	0.00
B-14	6.91	7.84	-0.93	8.79	-1.88	0.00	0.00	0.00	0.00
B-25	5.40	6.89	-1.49	8.01	-2.61	0.00	0.00	0.00	0.00
B-26	5.80	7.08	-1.28	8.68	-2.88	0.00	0.00	0.00	0.00
B-27	6.56	7.40	-0.84	8.28	-1.72	0.00	0.00	0.00	0.00
B-28	6.86	7.70	-0.84	8.39	-1.53	0.00	0.00	0.00	0.00
B-33	15.12	16.23	-1.11	17.07	-1.95	0.00	0.00	0.00	0.00
B-35	15.22	16.71	-1.49	17.29	-2.07	0.00	0.00	0.00	0.00
B-40	6.48	7.98	-1.50	8.63	-2.14	0.00	0.00	0.00	0.00
B-41	6.76	8.24	-1.48	8.93	-2.17	0.00	0.00	0.00	0.00


BUILDING 5440
drain
TANK FARM
B-40
-1.50'
B-25
-1.49'
B-45
B-26
1.28'
B-10
-0.88'
B-9
-0.89'
B-12
-0.92'
R-2
-0.93'
B-27
-0.84'
B-28
-0.84'
B-41
-1.48'
R-3
1.35'
B-11
-0.97'
B-13
B-14
-0.93'
B-35
-1.49'
B-33
-1.11'
LEVEE
-1.40-
-1.20-
-1.0-
CALABAZAS CREEK
Contour Intervals = 0.2'
0 10' 20' 30' 40'
scale 1"= 26'
WELL LOCATIONS
9-23-87 0900
LEGEND
Well
FIGURE 1A

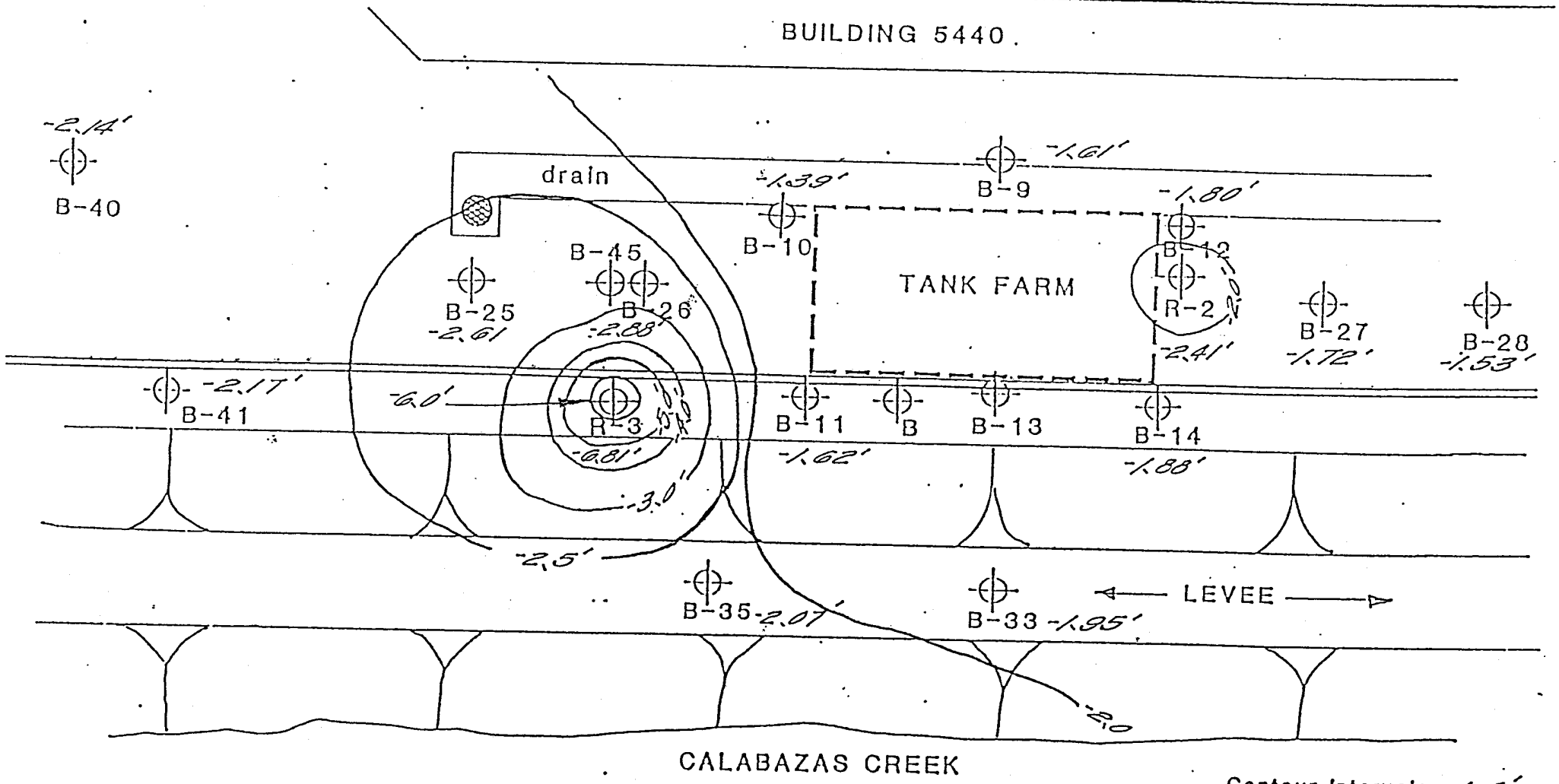
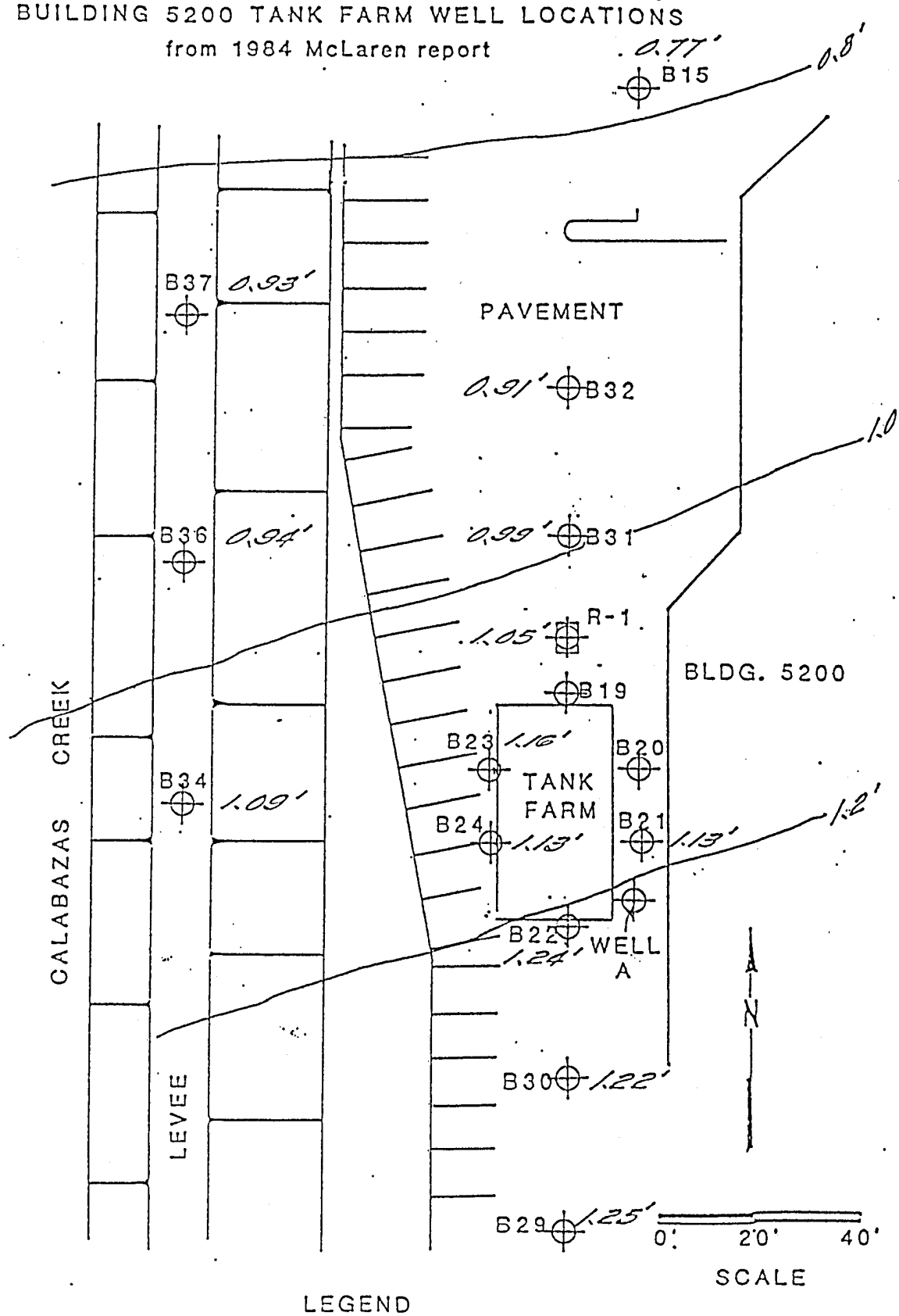

BUILDING 5440
-2.14'
B-40
drain
-1.39'
B-10
B-9
-1.61'
-1.80'
B-45
B-25
-2.61
B-26
-2.88'
TANK FARM
B-12
R-2
-2.41'
B-27
-1.72'
B-28
-1.53'
-2.17'
B-41
-6.0'
R-3
-5.0'
-4.0'
-3.0'
-2.5'
B-11
-1.62'
B
B-13
B-14
-1.88'
B-35 -2.07'
B-33 -1.95'
LEVEE
-2.0
CALABAZAS CREEK
Contour Intervals = 1.0'
0 10' 20' 30' 40'
scale 1"= 26'
WELL LOCATIONS
9-23-87 2100
LEGEND
Well
FIGURE 1B

FIGURE 2A 9-23-87 0900

BUILDING 5200 TANK FARM WELL LOCATIONS

from 1984 McLaren report



LEGEND

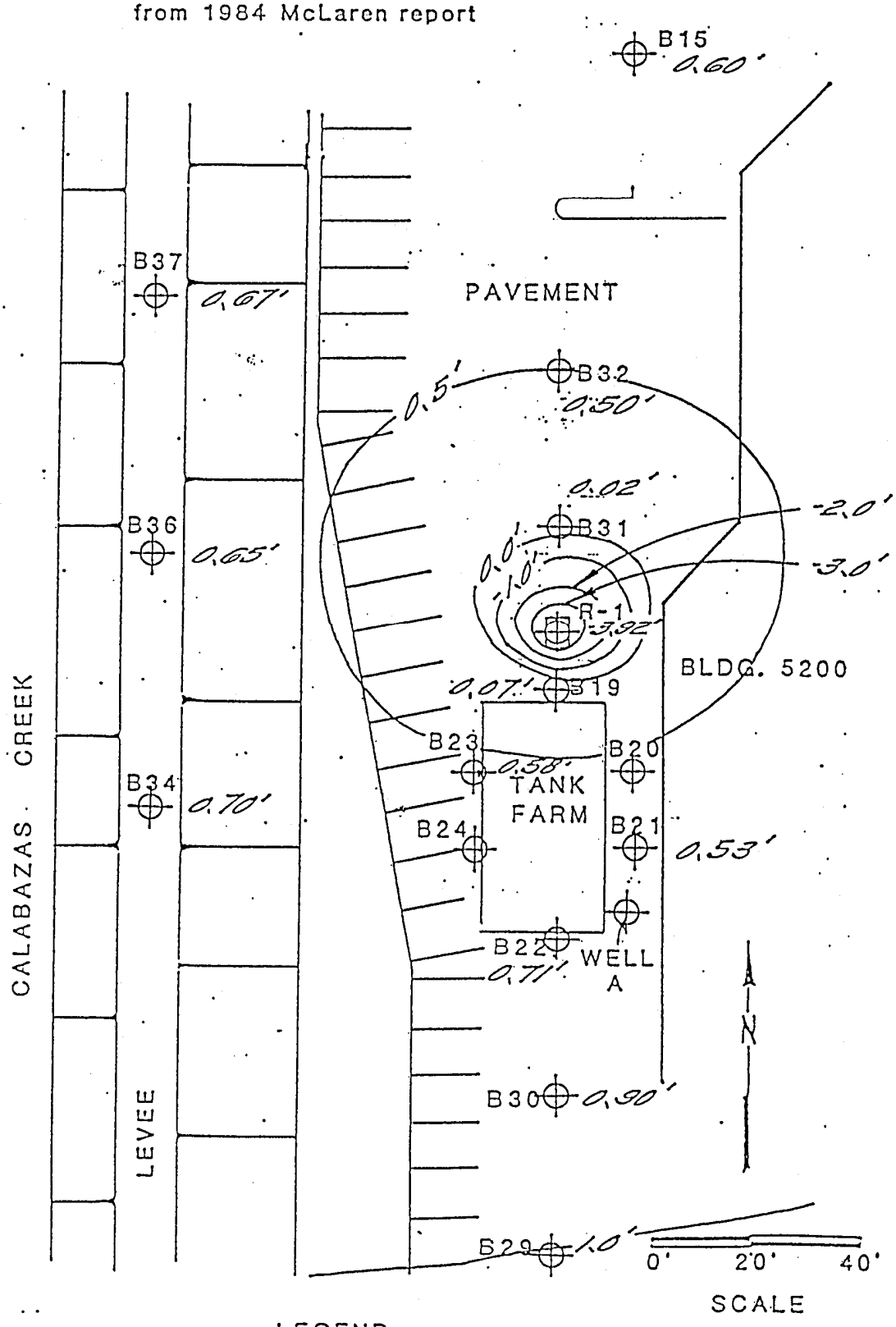
MONITORING WELL

Contour Intervals = 0.2'

FIGURE 2B 9-23-87 2100

BUILDING 5200 TANK FARM WELL LOCATIONS

from 1984 McLaren report



LEGEND

MONITORING WELL

Contour Intervals = 1.0'

APPENDIX C

Toxicological Profiles

ACETONE

INTRODUCTION

Acetone is a colorless, highly volatile, flammable liquid with a aromatic odor. It is a widely used industrial solvent found in paints, varnishes, and lacquers. The rapid evaporation rate of acetone makes it useful for cleaning and drying precision parts (ACGIH 1986).

TOXICOKINETICS

Several studies in humans and animals indicate that acetone is absorbed after either oral or inhalation exposure (EPA 1984). Approximately 75 percent of inhaled vapor is absorbed by the pulmonary route (Kagan 1924). The half-life for the elimination of acetone in expired air is about 3 hours (Krasavage et al. 1981). Orally administered acetone is eliminated through the expired air and in the urine (EPA 1984).

QUALITATIVE DESCRIPTION OF HEALTH EFFECTS

Acetone is currently being tested for carcinogenicity by the National Toxicology Program. Prechronic testing of rats and mice exposed to acetone in the drinking water is underway. Previous carcinogenicity bioassays are limited to skin painting studies in which acetone served as a solvent for other compounds. In general, tumors were not induced by acetone alone in these assays.

Acetone was found to be nonmutagenic in microbial assay systems and cell transformation systems. In other studies with acetone, negative results were noted in assays for sister-chromatid exchange, point mutation in mouse lymphoma cells, and DNA binding. Acetone was reported to induce chromosomal aberrations in one study (EPA 1984).

Pertinent data concerning reproductive or teratogenic effects associated with acetone exposure were not located in the literature reviewed.

Humans exposed to 500 ppm acetone vapors for 6 hours experienced eye and nasal irritation (Nelson et al. 1943, Matsushita et al. 1969). Prolonged or repeated dermal contact may defect the skin and produce dermatitis (Krasavage et al. 1981). Rats exposed to acetone vapors at concentrations up to 16,000 ppm 4 hr/day for 10 days showed behavioral changes as demonstrated by an inability to pole climb following stimulation (Goldberg et al. 1964). No changes in clinical chemistry variables or histological changes in the liver, brain, kidneys, lungs, or heart were found in rats exposed to acetone vapors at levels of 19,000 ppm for 3 hours/day, 5 days/week for 8 weeks. Narcosis was seen in exposed rats. Slight decreases in organ weights and body weights were observed in rats killed during exposure but not in rats killed 2 weeks after exposure (Bruckner and Peterson 1981). Workers chronically exposed to acetone vapors at levels up to 2,150 ppm experienced irritation of mucosal membranes, and dizziness but did not suffer other significant toxic effects (EPA 1984). Atmospheric concentrations in excess of 10,000 ppm are likely to produce central nervous systems depression and narcotic effects (Krasavage et al. 1981).

QUANTITATIVE DESCRIPTION OF HEALTH EFFECTS

Based on EPA guidelines for the assessment of carcinogenic risk (EPA 1986a), the EPA Environmental Criteria and Assessment Office determined that acetone is most appropriately classified Group D--Not Classified (EPA 1984). This category applies to agents for which there is inadequate evidence of carcinogenicity from human and animal studies.

EPA (1989) has derived an oral reference dose (RfD) based on an 1986 study sponsored by the Office of Solid Waste (EPA 1986b). In this study, acetone was evaluated for potential toxicity following administration by oral gavage for 90 days to groups of albino rats (30/sex/group) at levels of 0, 100, 500 or 2,500 mg/kg/day. Body weights, food consumption, clinical chemistry, hematology, and histopathologic parameters, as well as organ weights and organ-to-body

weights ratios, were measured and analyzed. Animals were sacrificed after 30 and 90 days of exposure. No effects were seen at the 100 mg/kg/day dose level throughout the study. Hematological changes were evident in the 2,500 mg/kg group at 30 days (males only) and at 90 days in males and females. Statistical analysis of the organ weight and ratio data revealed significantly increased kidney weights for females in the 500 and 2,500 mg/kg groups and increased kidney-to-body and brain weight ratios for males and females in the 2,500 mg/kg groups. Liver weight and liver/body weights ratios were also increased in the 2,500 mg/kg males and females. Histopathologic studies revealed a marked increase in severity in tubular degeneration of the kidneys and hyaline droplet accumulation with increasing doses. This accumulation was significant in the 500 and 2,500 mg/kg males and the 2,500 mg/kg females. Based on these findings, an animal NOEL of 100 mg/kg/day and a LOAEL of 500 mg/kg/day were established. Using the animal NOEL of 100 mg/kg/day and applying an uncertainty factor of 1,000, an oral RfD of 0.1 mg/kg/day (7.0 mg/day for a 70-kg human) for acetone was calculated.

The American Conference of Governmental Industrial Hygienists (ACGIH 1986) recommended a time-weighted average threshold limit value of 750 ppm (1,780 mg/m^3) for occupational exposure to acetone. The National Institute of Occupational Safety and Health (NIOSH 1978) recommended an exposure limit of 250 ppm for acetone.

SUMMARY OF ACETONE CRITERIA

EPA carcinogen classification	Group D
Oral RfD	0.1 mg/kg/day

REFERENCES

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH). 1986. Documentation of Threshold Limit Values and Biological Exposure Indices. 5th ed. Cincinnati, Ohio

BRUCKNER, J.V., and PETERSON, R.G. 1981. Evaluation of toluene and acetone inhalant abuse. II. Model development and toxicology. Toxicol. Appl. Pharmacol. 61:302-312 (As cited in EPA 1984)

ENVIRONMENTAL PROTECTION AGENCY (EPA). 1984. Health Effects Assessment for Acetone. Environmental Criteria and Assessment Office, Cincinnati, Ohio. September 1984. EPA 540/1-86-016

ENVIRONMENTAL PROTECTION AGENCY (EPA). 1986a. Guidelines for carcinogen risk assessment. Fed. Reg. 51:33992-34003 (September 24, 1986)

ENVIRONMENTAL PROTECTION AGENCY (EPA). 1986b. Ninety-day gavage study in albino rats using acetone. Office of Solid Waste, Washington, D.C. As cited in EPA 1987

ENVIRONMENTAL PROTECTION AGENCY (EPA). 1989. Integrated Risk Information System (IRIS). Environmental Criteria and Assessment Office, Cincinnati, Ohio. Revised May 1, 1989

GOLDGERG, M.E., JOHNSON, H.E., POZZANI, U.C., and SMYTH, H.F. 19864. Effect of repeated inhalation of vapors of industrial solvents on animals behavior. Am. Ind. Hyg. Assoc. J. 25:369-375

KAGAN, E. 1924. Arch. Hyg. 94:41

KRASAVAGE, W.J., O'DONOGHUE, J.L., and DIVINCENZO, G.D. 1981. Ketones. In Clayton, G.D., and Clayton, P.B., eds. Patty's Industrial Hygiene and Toxicology. 3rd ed. John Wiley and Sons, New York. Vol. 2B

MATSUSHITA, T., YOSHEA, T., YOSHIMUNE, A., INONE, T., YAMAKA, F., and SUZUKI, H. 1969. Experimental studies for determining the maximum permissible concentration of acetone. I. Biological reactions in one day exposure to acetone. Jap. J. Ind. Health. 11:477-485

NELSON, K.W., EGE, J.F., ROSS, N., WOODMAN, L.E., and SILVERMAN, L. 1943. Sensory response to industrial solvent vapors. J. Ind. Hyg. Toxicol. 25:282-285

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH). 1978. Criteria for a Recommended Standard—Occupational Exposure to Ketones. Washington, D.C. DHEW (NIOSH) Publication No. 78-173

CYCLOHEXANONE

INTRODUCTION

Cyclohexanone is a pale white to yellow oily liquid with an acetone and peppermint-like odor. It has a molecular weight of 98.14 and is flammable. It is slightly soluble for various commercial products (e.g., cellulose acetate, nitrocellulose, natural resins, vinyl resins, crude rubber, waxes, shellacs, and DDT). It is also used to produce adipic acid for nylon and to prepare cyclohexanone resins (ACGIH 1986).

TOXICOKINETICS

Cyclohexanone is absorbed into the body via ingestion, inhalation, and dermal exposure. Dermal absorption of cyclohexanone produces the same effects as induced via other exposure routes but the dosage require is larger (Patty 1963). Cyclohexanone is primarily reduced to cyclohexane and is followed by conjugation with glucuronic acid (James and Waring 1971). A study using rabbits exposed by inhalation to cyclohexanone revealed increased urinary excretion of sulfate and glucuronic acid conjugates (Treon et al. 1943). Rats and rabbits administered oral doses of cyclohexanone were found to excrete trace amounts of hydroxycyclohexyl mercapturic acid and *cis*-2-hydroxylmercapturic acid in the urine. Rabbits given oral doses of cyclohexanone excreted cyclohexyl glucuronide as the major urinary metabolite.

QUALITATIVE DESCRIPTION OF HEALTH EFFECTS

Carcinogenicity

Data on the carcinogenic potential of cyclohexanone are limited. One study using F-344 rats and Fl mice administered cyclohexanone in drinking water for 2 years found and increased incidence of adenoma of the adrenal cortex in the low dose males compared with untreated controls (Lijinsky and Kovatch 1986).

No increases were seen in higher dose males or in female rats given either dose. A statistically significant increase in the incidence of lymphoma leukemias was seen in female mice exposed to 6,500 ppm but not in animals exposed to higher doses. Similarly, an increased incidence of hepatocellular adenomas and carcinomas was observed in male mice exposed to 6,500 ppm but was only marginally increased in the higher dose group compared with the control animals. Given these results, the authors concluded that there is only marginal evidence for carcinogenic activity of cyclohexanone.

Mutagenicity

The mutagenicity of cyclohexanone was tested by a forward mutation bioassay using *Bacillus subtilis* and a backward mutation bioassay using the Ames' test. The survival of *Bacillus subtilis* was severely affected and a large number of revertants in *Salmonella typhimurium* strain TA 98 were observed in strains exposed to cyclohexanone. Achromatic regions, breaks, and deletions were reported in Karyograms of human leukocytes exposed to media containing cyclohexanone (Collin 1971). No change in the recessive lethal mutation frequency in *Drosophila melanogaster* exposed to radiation was observed when pretreated with cyclohexanone (Goncharova 1970, Gonchorova and Laryutina 1970). No other mutagenicity bioassays were located in the reviewed literature.

Teratogenicity/Reproductive Effects

An evaluation of the offspring of pregnant ICR/SIM mice administered cyclohexanone via gavage found the chemical to induce developmental toxicity (Seidenberg and Becker 1987). The parameters used in this evaluation were: maternal toxicity, number of litters, number of resorbed litters, average number of pups per litter alive on postnatal day one (based on litters reaching term), average number of pups per litter on postnatal day one (including pregnancies not reaching the term by 21 or 22), average number of pups per litter dead or alive on postnatal days one and three, percentage of pup survival from postnatal day one to three, average live pup weight, and

average live pup weight gain. No other data on developmental toxicity were located in the reviewed literature.

Acute/Chronic Effects

The oral LD_{50} values for cyclohexanone in rats were reported to be 1.62 ml/kg (Smyth et al. 1969) and 1.84 g/kg (Deichmann and LeBlanc 1943, Gupta et al. 1979). The oral LD_{50}s for male and female mice was 2.07 and 2.11 ml/kg, respectively (Gupta et al. 1979). The dermal LD_{50} was 1,000 mg/kg for rabbits (Smyth et al. 1969).

Acute exposure of mice to various concentrations of cyclohexanone decreased the immobility developed in a behavioral despair swimming test (De Ceaurriz et al. 1983). Marked irritation and corneal injury resulted following placement of undiluted cyclohexanone in the eyes of rabbits (Carpenter and Smyth 1946). Guinea pigs exposed via inhalation to 4,000 ppm cyclohexanone resulted in narcotic symptoms, lacrimation, salivation, decreased body temperature and heart rate and opacity of the cornea (Specht et al. 1940). Central nervous system depression was observed in mice, guinea pigs, and cats exposed to cyclohexanone in the air (Specht et al. 1940). Slight kidney and liver toxicity were observed in monkeys and rabbits exposed to cyclohexanone. Exposure to high concentrations resulted in light narcosis and central nervous system effects (Treon et al. 1943). Rabbits exposed to concentrations of cyclohexanone in the air developed lymphocytosis, lymphopenia, and a reduction in lung ventilation and in the rate of oxygen consumption (Voronin 1956).

Studies with humans demonstrate that dermal exposure to cyclohexanone causes skin irritation and dermatitis (Patty 1963). Inhalation exposure to low doses of cyclohexanone has resulted in eye, nose, and throat irritation (Nelson et al. 1943), with higher concentrations causing mucous membrane irritation (Voronin 1956). It has also been shown to be a weak central nervous system depressant (Gosselin et al. 1984) and is capable of causing death at high concentrations (Patty 1963). These concentrations are not likely to occur unless handled at high temperatures.

QUANTITATIVE DESCRIPTION OF HEALTH EFFECTS

EPA (1989) has developed an oral risk reference dose (RfD) of 5.0 mg/kg/day based on reduced body weight gain in rats chronically administered cyclohexanone in their drinking water (Lijinsky and Kovatch 1986). A no-observed-adverse-effect level of 3,300 ppm (462 mg/kg/day) and a safety factor of 100 were used to derive the RfD. In this study, a lowest-observed-adverse effect level (LOAEL) of 6,500 ppm (910 mg/kg/day) was identified for body weight depression.

NIOSH has recommended a TWA exposure limit of 25 ppm cyclohexanone because of evidence of liver and kidney damage in rabbits after known exposure (NIOSH 1978). A time-weighted TLV of 25 ppm based on the above results in rabbits and a STEL of 100 ppm have also been proposed (ACGIH 1986).

SUMMARY OF CYCLOHEXANONE CRITERIA

Oral RfD	5.0 mg/kg/day

REFERENCES

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH). 1986. Documentation of the Threshold Limit Values and Biological Exposure Indices. 5th ed. ACGIH, Cincinnati, Ohio

CARPENTER, C.P., and SMYTH, H.F., Jr. 1946. Am. J. Ophthal 29:1363 (as cited in ACGIH 1986)

COLLIN, J.T. 1971. Cytogenetic effect of cyclamate, cyclohexanone and cyclohexanol. Diabetes 19:215-221

DE CEAURRIZ, J., et al. 1983. Toxicol. Appl. Pharmacol. 67:138-139

DEICHMANN, W.B., and LEBLANC, T.V. 1943. Determination of the approximate lethal dose with about six animals. J. Ind. Hyg. Toxicol. 25:415-417

ENVIRONMENTAL PROTECTION AGENCY (EPA). 1989. Integrated Risk Information System (IRIS). Environmental Criteria and Assessment Office, Cincinnati, Ohio

GONCHAROVA, R.I. 1970. Genetic activity of some cyclohexane derivatives. Genet. Tsitol. 137-142

GONCHAROVA, R.I., and LARYUTINA, E.A. 1970. Effect of some cyclohexane derivatives on the frequency of lethal mutations induced by γ and x-ray irradiation in *Drosophila*. Genet. Tsitol. 142-148

GOSSELIN, R.E., SMITH, R.P., and HODGE, H.C. 1984. Clinical Toxicology of Commercial Products. 5th ed. Williams and Wilkins, Baltimore

GUPTA, P.K., LAWRENCE, W.H., TURNER, J.E., and AUTIAN, J. 1979. Toxicological aspects of cyclohexanone. Toxicol Appl. Pharmacol. 49:525-533

JACOBI, C., and SZUBINSKI. 1903. Arch. Exp. Pathol. Pharmacol. 50:199

JAMES, S.P., and WARING, R.H. 1971. The metabolism of alicyclic ketones in the rabbit and rat. Xenobiotica 1:573-580

LIJINSKY, W., and KOVATCH, M. 1986. A chronic toxicity study of cyclohexanone in rats and mice (NCI study). JNCI 77(4):941-949

NELSON, K.W., EGE, J.F., Jr., ROSS, N., WOODMAN, L.E., and SILVERMAN, L. 1943. Sensory response to industrial solvent vapors. J. Ind. Hyg. Toxicol. 25:282-285

NIOSH. 1978. Criteria for a recommended Standard—Occupational Exposure to Ketones. DHEW Pub. No. (NIOSH) 78-173

PATTY, F., ed. 1963. Industrial Hygiene and Toxicology. 2nd ed. Interscience Publishers, New York. Vol. II, p. 1766

SEIDENBERG, J.M., and BECKER, R.A. 1987. Teratog. Carcinog. Mutagen. 7:17-28

SPECHT, H., MILLER, J.W., VALAER, P.J., and SAVERS, R.R. 1940. Acute Response of Guinea Pigs to the Inhalation of Ketone Vapors. U.S. Public Health Service, NIH Bull. No. 176, Div. Ind. Hyg. pp 1-6

SMYTH, H.F., Jr., CARPENTER, C.P., WEIL, C.S., POZZANI, U.C., STRIEGEL, J.A., and NVCUM, J.S. 1969. Range finding toxicity data VII. Am. Ind. Hyg. Assoc. J. 30:470-476

TREON, J.F., CRUTCHFIELD, W.E., Jr., and KITZMILLER, K.V. 1943. The physiological response of rabbits to cyclohexane, methyl cyclohexane, and certain derivatives of these compounds. 1. Oral administration and cutaneous application. J. Ind Hyg. Toxicol. 25:199-214

VORONIN, A.P. 1956. Chronic intoxication of animals with cyclohexanone vapor. Tr. Nauch. Sessii Leningr. Nauch.-Issledo-Inst. Gig. Tr. Profzabol. Leningr. 261-264 (As cited in Krasavage et al. 1981)

GLYCOL ETHERS

INTRODUCTION

Glycol ethers are constituents of painting plasters, cleaning compounds, liquid soaps, cosmetics, perfume fixatives and solvent mixtures (Sittig 1985, Verschueren 1983).

TOXICOKINETICS

Glycol ethers are absorbed extensively in the gastrointestinal tract and the lungs following oral and inhalation exposures, respectively. In humans, 68% of diethylene glycol monoethyl ether was recovered in the urine as a metabolite (2-ethoxy-ethoxy) (Kamerling et al. 1977). Substantial quantities of a ethylene glycol monobutyl ether metabolite were found in urine of animals and humans exposed to vapor concentratons of 100-385 ppm (Carpenter et al. 1956).

QUALITATIVE DESCRIPTION OF HEALTH EFFECTS

Carcinogenicity

No information regarding the carcinogenicity of glycol ethers was located in the available literature.

Mutagenicity

Several of the glycol ethers have tested negative for mutagenicity in the reverse mutation Salmonella typhimurium assay, the Escherichia coli reverse mutation assay, the Schizosaccharomyces pombe and in the cell culture test for unscheduled DNA synthesis (EPA 1984). These include diethylene glycol monobutyl ether, diethylene glycol dimethyl ether, propylene glycol methyl ether, propylene glycol ethyl ether and dipropylene glycol methyl ether. Diethylene glycol butyl ether has tested weakly positive for point mutations in Mouse Lymphoma and Chinese Hamster Ovary cells (Thompson et al. 1984); diethylene glycol dimethyl ether and ethylene glycol methyl ether were weakly positive in the dominant lethal test in male rats and strongly positive in the sperm abnormality test (McGregor et al. 1983).

Teratogenicity/Reproductive Effects

Glycol ethers are teratogenic and fetotoxic in laboratory animals following both oral and inhalation exposures. At doses in excess of 1000 mg/kg/day during gestation, ethylene glycol monobutyl ether, ethylene glycol dimethyl and diethyl ethers, and diethylene glycol monomethyl, -monoethyl, -dimethyl, diethyl and -dibutyl ethers resulted in varying amounts of maternal mortality (0-41%) and fetal mortality in mice (Schuler et al. 1984). However, these studies employed only one dosage level. Diethylene glycol monobutyl ether resulted in no maternal mortality or apparent effects on fertility at 500 mg/kg/day.

Teratogenic effects such as growth retardation, minor skeletal variations and delayed ossification have been observed in fetuses of dams treated with > 250 mg/kg/day ethylene glycol dimethyl ether on days 7-10 of gestation (McGregor 1981, Nagano et al. 1984, Uemura 1980). Concentrations of 179 mg/kg/day ethylene glycol dimethyl ether have reduced testicular weights in mice (Nagano et al. 1984). Rats administered acute oral doses of 100 mg/kg/day ethylene glycol methyl ether and monoethyl ether exhibited reversible testicular damage (Foster et al. 1983), while vapor concentrations of 300 ppm ethylene glycol methyl ether for 13 weeks produced testicular atropy; concentrations of 100 ppm showed teratogenic potential (Doe 1984, Rao et al. 1983, Miller et al. 1983). Ethylene glycol methyl ether was embryotoxic in rats at concentrations of 200 ppm while increased resoptions, reduced fetal weights and induced skeletal and cardiovascular defects occurred at 50 ppm (Nelson et al. 1984).

Increased mortality and spontaneous abortions have been reported in rabbits exposed to 200 ppm ethylene glycol monobutyl ether via inhalation during days 6-18 of gestation (Tyl et al. 1984). Fetal effects included reduced implantation, increased resorptions and retarded skeletal ossification.

No adverse reproductive effects have been observed for proplyene glycol ethers (EPA 1984). Proplyene glycol monomethyl ether caused delayed sternebral ossification and mild fetotoxic effects in fetuses of dams exposed to 3000 ppm on days 6-15 of gestation (Hanley et al. 1984 a,b).

Subchronic/Chronic Effects

Generally, diethylene glycol ethers are less toxic than ethylene glycol ethers (Smyth and Carpenter 1948, Hall et al. 1966, Butterworth et al. 1976) and propylene glycol ethers are somewhat less toxic than the ethylene glycol ethers (Smyth and Carpenter 1948, Rowe et al. 1954). Ethylene glycol ethers produce retarded growth, lesions of the liver and kidney, hematological effects, and central nervous system (CNS) depression (Smyth and Carpenter 1948, Hall et al. 1966, Kesten et al. 1939). The ether derivatives produce more marked kidney injury and hematuria than ethylene glycol (Gosselin et al. 1984). High doses of ethylene glycol monoalkyl ethers administered orally, produce testicular atropy and leukopenia in mice (Nagano et al. 1979).

The hierarchy of toxicity for the various glycol ethers is as follows: ethylene glycol monobutyl ether > monoethyl ether > monomethyl ether > diethyl ether > dimethyl ether (EPA 1984). Ethylene glycol monobutyl ether is the most toxic glycol monoalkyl ether (Browning 1965). Humans exposed acutely to concentrations of 300-600 ppm have experienced respiratory and eye irritation, CNS depression, hematological effects, and liver, kidney and bone marrow damage (Clayton and Clayton 1981). In animals, hemorrhage of the lungs, hemoglobinuria and liver and kidney injury have been been observed following repeated inhalation exposure (Clayton and Clayton 1981). Acute animal exposures result in CNS depression, dyspnea and corneal or lens opacity (Browning 1965). Respiratory and ocular irritation, decreased RBC and hemoglobin and increased BUN were observed in dogs exposed to vapor concentraitons of 35.5 mg/kg/day vapors (Werner et al. 1943).

Ethylene glycol monoethyl ether exhibits a low oral toxicity and is not appreciably irritating to the skin, however the vapors are irritating to the respiratory tract (Clayton and Clayton 1981). Central nervous system effects such as headache, drowsiness, gait, depression, and tremor have been observed in humans (Hamilton and Hardy 1974). In animals, acute exposure via inhalation results in dyspnea, and congestion and edema of the lungs. Tubular atropy of the kidneys and interstitial edema of testes have also been

observed (Browning 1965).

Overexposure to ethylene glycol methyl ether results in irritation to the eyes, nose and throat, drowsiness, weakness and shaking. Short-term and subchronic vapor inhalation studies in animals have shown that ethylene glycol methyl ether produces adverse effects on bone marrow and lymphoid tissues (Miller et al. 1984); CNS effects, and lung, kidney and liver changes (Gosselin et al. 1984).

Ethylene glycol diethyl ether is also irritating to the mucous membranes, and elicits CNS depression, dyspnea, anemia, renal damage, hemoglobinuria, hematuria, and hemolysis of red blood cells. This compound is less toxic during chronic oral exposures than monomethyl ethers (EPA 1984).

Ethylene glycol dimethyl ether vapor causes dizziness, while ingestion has resulted in nausea, vomiting, and loss of consciousness (U.S. Coast Guard 1978). Concentrations of 1000 ppm administered acutely to rats resulted in decreased avoidance response (Clayton and Clayton 1981). Reduced white blood cell counts were observed in mice administered concentrations of 179 mg/kg/day (Nagano et al. 1984).

Like most other ethylene glycol ethers, propyl derivatives are only mildly irritating to the skin but are highly toxic via inhalation (International Labour Office 1971). High concentrations of 1000-2000 mg/kg/day of ethylene glycol monopropyl ether, -monobutyl ether or -monophenyl ether administered orally for 5 days to mice had no effect (Nagano et al. 1984).

Diethylene glycol monoethyl ether causes primary skin irritation and minor eye irritation in rabbits (Deichman and Gerarde 1969). In animals, symtoms of acute intoxication of diethylene glycol monoethyl ether include CNS depression, ataxia, tremors, and death due to kidney injury (Browning 1965). Gastrointestinal inflammation, pneumonia and kidney injury have also resulted from acute exposures (Patty 1963). Chronic oral administration to rats has resulted in kidney effects, slight liver damage and interstitial edema of the testes (Patty 1963, Morris et al. 1942, Hanzlik et al. 1947).

Inhalation exposure to proplyene glycol ethers has resulted in CNS depression, depressed rate of body weight gain, liver enlargement and histopathological changes in the liver (Rowe et al. 1954, Miller et al. 1984).

QUANTITATIVE DESCRIPTION OF HEALTH EFFECTS

EPA (1984) has derived an Acceptable Intake Subchronic (AIS) of 350 mg/kg/day and an Acceptable Intake Chronic (AIC) of 140 mg/kg/day for oral exposure to diethylene glycol monoethyl ether from subchronic and chronic studies, respectively. These values would only over-estimate the value for diethylene glycol monomethyl ether and diethylene glycol dimethyl ether, and may thus serve as an interim value. The AIS value was developed from a no-observed adverse effect level (NOAEL) of 500 mg/kg/day and a safety factor of 100 (Hall et al. 1966, Smyth and Carpenter 1948). The AIC was calculated from a three-generation drinking water study in which mild lesions of the liver, kidney and testes were observed (Morris et al. 1942). A safety factor of 100 was used to derive the AIC.

ACGIH (1986) has recommended a TWA-TLV of 25 ppm for ethylene glycol monobutyl ether to protect workers from hemolytic effects. A STEL of 75 ppm has also been recommended for ethylene glycol monobutyl ether. A TWA-TLV of 100 ppm and a STEL of 150 ppm have been recommended for proplyene glycol monomethyl ether to protect workers from ocular irritation. The same values were adopted for dipropyl glycol monomethyl ether.

REFERENCES

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH). 1986. Threshold Limit Values and Biological Exposure Indices. 5th ed. Cincinnati, Ohio.

ARENA JM 1974. Poisoning: Toxicology and Symptoms Treatments. 3rd ed. Springfield ILL, Charles C. Thomas p. 561.

BROWNING E. 1965. Toxicity and Metabolism of Industrial Solvents. New York. American Elsivier p. 603-4

CARPENTER C.P., POZZANI U.C., WEIL C.S. NAIN J.H., KECK G.A. AND SMYTH H.F. 1956. The toxicity of butyl cellosolve solvent. Am Med Assoc Arch Ind Hyg 14:114-131

CLAYTON G.D., AND CLAYTON F.E. (eds). 1981. Patty's Industrial Hygiene and Toxicology, Vol 2B. Toxicology. 3rd ed. New York. John Wiley and Sons. p. 3920.

DEICHMAN W.B. AND GERARDE H.W. 1969. Toxicology of Drugs and Chemicals 4th ed. New York: Academic Press. p. 729.

DOE J.E., 1984. Further studies on the toxicology of the glycol ethers with emphasis on rapid screening and hazard assessment. Environ Health Perspect 57:199-206.

ENVIRONMENTAL PROTECTION AGENCY (EPA). 1984. Heatlh Effects Assessment for Glycol Ethers. Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, Cincinnati, Ohio.

FOSTER PM., CREASY D.M., FOSTER J.R., THOMAS L.V., COOK M.W. AND GANGOLLI S.D. 1983. Testicular toxicity of ethylene glycol monomethyl and monoethyl ethers in the rat. Toxicol Appl Pharmacol 69(3)385-94.

GOSSELIN R.E., SMITH R.P., AND HODGE H.C. 1984. Clinical Toxicology of Commercial Products. 5th ed. Williams and Wilkins, Baltimore MD

HALL D.E., LEE F.S., AUSTIN P. FAIRWEATHER F.A. 1966. Food Cosmet Toxicol 4:263.

HAMILTON A. and HARDY HL. 1974. Industrial Toxicology 3rd. ed. Acton Mass: Publishing Sciences Group Inc. p.301.

HANLEY T.R., YOUNG J.T., JOHN J.A., AND RAO K.S. 1984a. Ethylene glycol monomethyl ether (EGME) and propylene glycol monomethyl ether (PGME): Inhalation fertility and teratogenicity studies in rats, mice and rabbits. Environ Health Persp 57:7-12.

HANLEY T.R., CALHOUN L.L., YANO B.L., AND RAO K.S. 1984b. Teratologic evaluation of inhaled propylene glycol monomethyl ether in rats and rabbits. Fund Appl Toxicol 4(5):784-794.

HANZLIK P.J., LAWRENCE W.S., AND LAQUEUR G.L. 1947. Comparative chronic toxicities of diethylene glycol monoethyl ether (carbitol) and related glycols: results on continued drinking and feeding. J Ind Hyg Toxicol 29:233-241.

INTERNATIONAL LABOUR OFFICE 1971. Encyclopedia of Occupational Health and Safety. Vol I and II. New York: McGraw-Hill Book Co. p. 619.

KAMERLING J.P., DURAN M., BRUINVIS L., KETTING D., WADMAN S.K., DEGROUT C.J. 1977. (2-ethoxyethoxy) acetic acid: an unusual compound found in the gas chromatographic analysis of urinary organic acids. Clin Chem Acta 77:397-405

KESTEN H.D., MULINOS M.G., AND POMERANTZ L. 1939. Pathologic effects of certain glycols and related compounds. Arch Pathol 27:447-465.

MCGREGOR D.B. 1981. Tier II mutagenic screening of 13 NIOSH priority compounds. Individual compound report on bis-(2-methoxyethanol) ether. Report No. 34. Submitted to NIOSH under Contract 210-78-0026. Inveresk Research International Imited, Musselburgh EH21 74B, Scotland.

MCGREGOR D.B., WILLINS J.M., HOLMSTROM M., MCDONALD D., NIEMEIER R.W. 1983. Genetic effects of 2-methyoxy ethanol and bis-(2-methoxy ethyl) ether. Toxicol Appl Pharmacol 7c:303

MILLER R.R., AYRES J.A., YOUNG J.T., AND MCKENNA M.J. 1983. Ethylene glycol monomethyl ether I. Subchronic vapor inhalation study with rats and rabbits. Fund Appl Toxicol 3(1):49-54.

MILLER R.R., HERMANN E.A., YOUNG J.T., LANDRY T.D., CALHOUN L.L. 1984. Ethylene glycol monomethyl ether and polpylene glycol monomethyl ether: metabolism, disposition and subchronic inhalation toxicity studies. Environ Health Persp 57:233-239.

MORRIS H.J., NELSON A.A., AND CALVERY H.O. 1942. Observations on the chronic toxicities of propylene glycol, ethylene glycol, diethylene glycol, ethylene glycol, mono-ethyl-ether, and diethylene glycol mono-ethyl-ether. J Pharmacol Exp Ther. 74:266-273.

NAGANO K., MAKAYAMA E., KOZANO M., OOBAYASHI H., ADACHI H. AND YAMADA T. 1979. Mouse testicular atropy induced by ethylene glycol monoalkly ethers. Jap J Ind Health 21:29-35.

NELSON B.K., SETZER J.V., BRIGHTWELL W.S. et al. 1984. Comparative inhalation teratogenicity of four glycol ether solvents and an amino derivative in rats. Environ Health Perspect 57:261-71.

PATTY F. (ed). 1963. Industrial Hygiene and Toxicology: volume II. Toxicology 2nd ed New York. Intersciences Publishers p. 1558.

RAO K.S., COBEL-GEARD S.R., YOUNG J.T. et al. 1983. Ethylene glycol monomethyl ether II. Reproductive and dominant lethal studies in rats. Fund Appl Toxicol 3(2):80-5

ROWE V.K. MCCOLLISTER D.D, SPENCER H.C., OYEA F., HALLINGSWORTH R.L. AND DRILL V.A. 1954. Toxicology of mono-, di-, and tri-propylene glycol methyl ethers. Arch Ind Hyg Occup Med. 9:509-525.

SCHULER R.L., HARDIN B.D. NIEMEIER R.W. ET AL. 1984. Results of testing fifteen glycol ethers in a short-term in vivo reproductive toxicity assay. Environ Health Persp 57:141-146.

SITTING HDBK. 1985. Tox. and Hazard Chem and Carcinog 2nd ed. p. 430.

SMYTH H.F., AND CARPENTER C.P. 1948. Further experience with the range finding test in the industrial toxicology laboratory. J Ind Hyg Toxicol 30:63-68.

TOMPSON E.D., COPPINGER W.J., VALENCIA R., IAVICOLI J. 1984. Mutagenicity testing of diethylene glycol monobutyl ether. Environ Health Perspes 57:105.

TYL R.W., MILLICOVSKY G., DODD D.E., PRITTS I.M., FRANCE K.A., FISHER L.C. 1984. Teratologic evaluation of ethylene glycol monobutyl ether in Fischer 344 rats and New Zealand White rabbits following inhalation exposure. Environ Health Persp 57:47-68.

UEMURA K. 1980. ACTA Obstet gynaecol Jpn (Jpn ed). 32(1):113.

U.S. COAST GUARD 1978. Department of Transportation. CHRIS-Hazardous Chemical Data, Manual Two. Washington DC. U.S. Government Printin Office, October 1978.

VERSCHUEREN K. 1983. Handbook of Environmental Data of Organic Chemicals. 2nd ed. New York, N.Y. Van Nostrand Reinhold Co. p. 651.

WERNER H.W., MITCHELL J.L., MILLER J.W., AND VON OETTINGEN W.F. 1943. Effects of repeated exposure of dogs to monoalkly ethylene glycol ether vapors. J Ind Hyg Toxicol 25:409-414.

ISOPROPYL ALCOHOL

INTRODUCTION

Isopropyl alcohol is a colorless, flammable liquid with a slight odor resembling rubbing alcohol. It has a molecular weight of 60.09 and is insoluble with water, alcohol, ether, and chloroform. It is used as a raw material in the production of acetone, glycerin and other chemicals, as a solvent, and as rubbing alcohol in a 70% solution in water (ACGIH 1986).

TOXICOKINETICS

Isopropyl alcohol is readily absorbed after oral or inhalation exposure (ACGIH 1986). It is not dermally absorbed to any large degree (Smyth and Carpenter 1948, Treon n.d). The exact metabolism of isopropyl alcohol is not well defined but evidence shows that part of it is oxidized to acetone (Ellis 1952) and some undergoes conjugation with glucuronic acid (Kamil et al. 1953). Ketones and isopropyl alcohol have been found in expired air and in urine following oral exposure to isopropyl alcohol. Concentrations of isopropyl alcohol have been measured in the brain, heart, kidneys, and blood of animals given oral doses of isopropyl alcohol.

QUALITATIVE DESCRIPTION OF HEALTH EFFECTS

Carcinogenicity

Workers involved in the manufacture of isopropyl alcohol by the strong acid process are reported to have an increased incidence of cancer of the paranasal sinuses (IARC 1977, Weil et al. 1952, Alderson and Rattan 1980) and laryngeal cancer (IARC 1977). The cancer risk is generally believed to be due to isopropyl oil, but other chemicals such as diisopropyl sulphate (an intermediate in the process) and sulfuric acid may also be involved in the

increased risk of cancer. There is no evidence to indicate that isopropyl alcohol is carcinogenic (ACGIH 1986, Weil et al. 1952, Weil 1975).

Mutagenicity

No data were located in the reviewed literature regarding the mutagenic potential of isopropyl alcohol.

Teratogenicity/Reproductive Effects

A two-generation reproduction study using male and female rats administered isopropyl alcohol in the drinking water found evidence of fetotoxicity but not teratogenicity in the offspring of treated rats (Lehman et al. 1945). No teratogenic effects were observed following injection into fertile chicken eggs before incubation (McLaughlin et al. 1964). No additional studies on the teratogenicity of isopropyl alcohol were located.

Acute/Chronic Effects

The oral LD_{50} values for isopropyl alcohol in rats ranged from 4.7 g/kg (for young adults) (Kimura et al. 1971) to 5.8 g/kg (for older adults) (Smyth and Carpenter 1948). In rabbits, the oral LD_{50} as found to be 7.9 g/kg (Munch 1972, Munch and Schwartze 1925); and 6.2 g/kg for the dog (Lehman and Chase 1944).

Rats exposed to isopropyl alcohol in their drinking water for 27 weeks showed decreased body weight (Lehman and Chase 1944). No gross or microscopic changes in the brain, pituitary, lung, heart, liver, spleen, kidney, or adrenals were observed. Prolonged and repeated dermal exposure of rabbits resulted in erythema, dryness, and superficial desquamation (Treon n.d.). Intermittent acute inhalation exposure to an unspecified concentration of isopropyl alcohol vapors resulted in slight intoxication (Macht 1920, Macht 1922). Narcotic effects and reversible fatty changes in the liver were reported in mice exposed to 10,900 ppm isopropyl alcohol in the air

(26.8 ng/l) for 4 hr/day for a total of 123 hours (Weese 1928). Rats exposed to various concentrations of isopropyl alcohol in the air continuously for 3 months showed alterations in reflexes, enzyme activity, leukocyte fluorescence, BSP retention, total nucleic acids, coproporphyrin concentrations in the urine, and the morphology of the lung, liver, spleen, and central nervous system but the authors reported that these findings are difficult to interpret given conflicting results with other data.

Exposure to isopropyl alcohol at concentrations of 400 ppm caused mild irritation of the eyes, nose, and throat; at 800 ppm the symptoms were intensified (Nelson et al. 1943). Isopropyl alcohol has moderate narcotic properties and is similar in action to ethyl alcohol but is more toxic (Fairhall 1949). There have been several reports of acute toxicity in humans following the ingestion of isopropyl alcohol (McCord at et al. 1948, Chapin 1949, King et al. 1970, Juncos and Laguchi 1968, Freireich et al. 1967). Symptoms include pulmonary difficulty, nausea, vomiting, headache, and various degrees of central nervous system depression (including coma). Children living near a plant producing isopropyl alcohol suffered a lag in physical development and low hemoglobin values (Gorlova 1970).

QUANTITATIVE DESCRIPTION OF HEALTH EFFECTS

Because there are limited dose-response data available, no health-based criteria values have been derived for isopropyl alcohol.

Workplace environmental limits recommended by NIOSH (1978) are 400 ppm as a time-weighted average, with a 15 minute ceiling of 800 ppm. The threshold limit value (TLV) for isopropyl alcohol is 400 ppm, as a TWA. The recommended short-term exposure limit is 500 ppm (ACGIH 1986).

REFERENCES

ADELSON, L. 1962. Am. J. Clin. Pathol., 38:144

ALDERSON, M.R., and RATTAN, N.S. 1980. Mortality of workers on an isopropyl alcohol plant and two MEK dewaxing plants. Br. J. Ind. Med. 37:85-89

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENIST (ACGIH). 1986. Documentation of the threshold limit values and Biological exposure Indices. 5th ed. Cincinnati, Ohio

CHAPIN, M.A. 1949. J. Maine Med. Assoc. 40:288

ELLIS, F.W. 1952. Criteria for a Recommended Standard. Occupational Exposure to Isopropyl Alcohol. US NTIS, PB Rep. Issue PB-273873 J. Pharmacol. Exp. Ther. 105:427 (As cited in NTIS 1976)

FAIRHALL, L.T. 1949. Industrial Toxicology, Williams and Wilkins, Baltimore Pp. 248 (As cited in ACGIH 1986)

FREIREICH, A.W., CINQUE, T.J., XANTHAKY, G., and LANDAU, D. 1967. N. Engl. J. Med. 277:699

GORLOVA, O.E. 1970. Gig. Sanit. 35:9 (as cited in Rowe and McCollister 1981)

INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC). 1977. IARC Monographs on the Evaluation of Carcinogenic Risk to Humans. World Health Organization. 15:223-243

JUNCOS, L., and LAGUCHI, J.T. 1968. J. Am. Med. Assoc. 204:732

KAMIL, I.A., SMITH, J.M., and WILLIAMS, R.T. 1953. Criteria for a Recommended Standard. Occupational Exposure to Isopropyl Alcohol. US NTIS, PB Rep. Issue PB-273873 Biochem. J. 53:129 (As cited in NTIS 1976)

KIMURA, E.T., EBERT, D.M., and DODGE, P.W. 1971. Toxicol. Appl. Pharmacol. 19(4):699

KING, I.H. Jr., BRADLEY, K.P., and SHIRES, D.L. Jr. 1970. J. Am. Med. Assoc. 211:1855

LEHMAN, A.J., SCHWERMA, H., and RICHARDS, E.J. 1945. Pharmacol. Exp. Ther. 85:61 (cited in "Criteria for a Recommended Standard, Occupational Exposure to Isopropyl Alcohol" U.S. NTIS PB Rep. Issue PB-273873 (1976)

LEHMAN, A.J., and CHASE, H.F. 1944. Criteria for a recommended Standard. Occupational Exposure to Isopropyl Alcohol. US NTIS, PB Rep. Issue PB-273873 J. Lab. Clin. Med. 29:561 (As cited in NTIS 1976)

MACHT, D.I. 1922. Arch. Int. Pharmacodyn. 26:285

MACHT, D.I. 1920. J. Pharmacol. Exp. Ther. 16:1

McCORD, W.M., SCHWITZER, P.K., and BRILL, H.H. Jr. 1948. Southern Med. J. 41:630

McLAUGHLIN, J., Jr., MARLIAC, J.P., VERRETT, M.J., MUTCHLER, M.K., and FITZHUGH, O.G. 1964. Am. Ind. Hyg. Assoc. J. 25:282

MERTENS, H. 1896. Arch. Int. Pharmacodyn. 2:127

MUNCH, J.C. 1972. Ind. Med. Surg. 41:(4):31

MUNCH, J.C., and SCHWARTZE, E.W. 1925. J. Lab. Clin. Med. 10:985

NELSON, K.W. et al. 1943. J. Ind. Hyg. Toxicol. 25:282 (as cited in ACGIH 1986)

NIOSH. 1978. Criteria for a recommended Standard—Occupational Exposure to Isopropyl Alcohol. DHEW Pub. No. (NIOSH) 76-142

ROWE, V.K., and MCCOLLISTER, S.B. 1981. Alcohols. In Clayton G.D., and Clayton, P.B., eds. Patty's Industrial Hygiene and Toxicology. 3rd ed. John Wiley and Sons, New York Vol 2B

SMYTH, H.F., Jr. 1956. Am. Ind. Hyg. Assoc. J. Philadelphia, April 25

SMYTH, H.F., Jr., and CARPENTER, C.P. 1948. J. Ind. Hyg. Toxicol. 30:63

TREON, J.F. N.D. Unpublished data. (As cited in Rowe and McCollister)

WEESE, H. 1928. Arch. Exp. Pathol. Pharmacol. 135:118

WEIL, C.S. 1976. Criteria for a Recommended Standard. Occupational Exposure to Isopropyl Alcohol. US NTIS, PB Rep. Issue PB-273873 (As cited in NTIS 1944)

WEIL, C.S, SMYTH, H.F., Jr., and NALE, T.W. 1976. Criteria for a Recommended Standard. Occupational Exposure to Isopropyl Alcohol. US NTIS, PB Rep. Issue PB-273873 Arch. Ind. Hyg. Occup. Med. 5:535-47 (As cited in NTIS 1944)

2-BUTANONE
(METHYL ETHYL KETONE)

INTRODUCTION

Methyl ethyl ketone (MEK, 2-butanone) is a colorless liquid generally used as a solvent for paint, nitrocellulose coatings, and vinyl films. It is also found in cements, adhesives, and cleaning fluids and is used in the manufacture of smokeless powder (Verschueren 1983).

TOXICOKINETICS

Absorption of methyl ethyl ketone from the gastrointestinal tract and from the lungs has been inferred from systemic toxic effects observed following acute oral exposure and acute and subchronic inhalation exposures (Lande et al. 1976). Methyl ethyl ketone is absorbed through intact skin (Smyth et al. 1962). It is eliminated unchanged in expired air and its metabolites are eliminated in the urine as conjugates of glucuronic acid (Williams 1959). In humans, about 75% of inhaled methyl ethyl ketone is absorbed by the pulmonary route (Tada et al. 1972).

QUALITATIVE DESCRIPTION OF HEALTH EFFECTS

Methyl ethyl ketone has not been adequately tested for carcinogenicity and has produced only equivocal evidence of mutagenicity in a few bacterial assays (EPA 1984). Methyl ethyl ketone is embryotoxic, fetotoxic, and potentially teratogenic to rats. Schwetz et al. (1974) reported that methyl ethyl ketone caused retarded fetal development and some teratogenic effects (acaudia, imperforate anus, and brachygnathia) at air concentrations of 3,000 ppm (9,000 mg/m^3).

Humans acutely exposed to methyl ethyl ketone at concentrations in excess of 200 ppm have complained of irritation of the eyes, nose and throat (Nelson et

al. 1943). Workers chronically exposed by inhalation to 300 to 300 ppm have developed numbness in the upper extremities (Smyth and Mayers 1944). Cavender et al. (1983) reported elevated serum glutamic pyruvic transaminase (SGPT) activity in female rats exposed via inhalation to 2,500 ppm MEK for 6 hours/day, 5 days/week for 90 days. At the 5,000-ppm exposure level, treated female rats exhibited significant increases in liver weight, liver-to-body weight ratio, and liver-to-brain ratio; significantly decreased SGPT activity; and increased phosphatase, potassium, and glucose levels. Takeuchi et al. (1983) reported slight neurological effects in rats exposed via inhalation to 200 ppm MEK in combination with n-hexane 12 hours/day, 7 days/week after 4 weeks of exposure. In experimental animals, skin contact for 24 hours produced moderate skin irritation, and dermatitis is likely to occur after repeated exposures (Smyth et al. 1962).

QUANTITATIVE DESCRIPTION OF HEALTH EFFECTS

Applying the criteria proposed by the Carcinogen Assessment Group of EPA for evaluating weight of evidence (EPA 1986), methyl ethyl ketone is most appropriately classified in Group D--Not Classified. This category applies to agents for which no data were available regarding carcinogenicity in humans or animals.

EPA (1989a) has determined a risk reference dose (RfD) for methyl ethyl ketone based on a study by LaBelle and Brieger (1955) in which no fetotoxicity was observed in 25 rats exposed to 235 ppm (693 mg/m^3 or 46 mg/kg/day) methyl ethyl ketone 7 hours/day, 5 days/week for 12 weeks. Using a no-observed-adverse-effect level (NOAEL) of 235 ppm (46 mg/kg/day) and an uncertainty factor of 1000, an oral RfD of 0.05 mg/kg/day was derived. Fetotoxicity was observed in rats exposed to estimated concentrations of 130.5 mg/kg/day.

EPA (1989b) has derived an inhalation RfD for methyl ethyl ketone of 0.09 mg/kg/day also based on the LaBelle and Brieger (1955) study in which rats were exposed to 693 mg/m^3 7 hours/day, 5 days/week for 12 weeks. The RfD

was calculated using a NOAEL for central nervous system toxicity and a safety factor of 1,000.

The American Conference of Governmental Industrial Hygienists (1986) has recommended a time-weighted average threshold limit value (TLV) of 200 ppm (590 mg/m^3) for occupational exposure to methyl ethyl ketone. NIOSH (1978) has also recommended a time-weighted average threshold limit value of 590 mg/m^3.

SUMMARY OF METHYL ETHYL KETONE CRITERIA

Oral RfD	0.05 mg/kg/day
Inhalation RfD	0.09 mg/kg/day

REFERENCES

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH). 1986. Threshold Limit Values and Biological Exposure Indices. 5th ed. Cincinnati, Ohio

CAVENDER, F.L., CASEY, H.W., SALEM, H., SWENBERG, J.A., and GARALLA, E.J. 1983. A 90-day vapor inhalation toxicity study of methyl ethyl ketone. Fund. Appl. Toxicol. 3:264-270 (As cited in EPA 1984)

ENVIRONMENTAL PROTECTION AGENCY (EPA). 1984. Health Effects Assessment for Methyl Ethyl Ketone. Office of Health and Environmental Assessment, Cincinnati, Ohio. September 1984. EPA 540/1-86-003

ENVIRONMENTAL PROTECTION AGENCY (EPA). 1986a. Guidelines for carcinogen risk assessment. Fed. Reg. 51:33992-34003 (September 24, 1986)

ENVIRONMENTAL PROTECTION AGENCY (EPA). 1989a. Integrated Risk Information Systems (IRIS). Envrionmental Criteria and Assessment Office. Cincinnati, Ohio. Revised May 1, 1989

ENVIRONMENTAL PROTECTION AGENCY (EPA). 1989b. Health Effects Assessment Summary Tables. Prepared by Office of Health and Environmental Assessment. Environmental Assessment and Criteria Office, Cincinnati, Ohio, for the Office of Solid Waste and Emergency Response, Office of Emergency and Remedial Response, Washington, D.C. March 1989

KRASAVAGE, W.J., O'DONOGHUE, J.L., and DIVENCENZO, G.D. 1981. Ketones. In Clayton, G.D., and Clayton, P.B., eds. Patty's Industrial Hygiene and Toxicology. 3rd ed. John Wiley and Sons, New York. Vol 2B

LABELLE, C.W., and BRIEGER, H. 1955. Vapour toxicity of a composite solvent and its principal components. Arch. Ind. Health 12:6523-627 (As cited in EPA 1987)

LANDE, S.S., DURKIN, P.R., CHRISTOPHER, D.H., HOWARD, P.H., and SAXENA, J. 1976. Investigation of Selected Potential Environmental Contaminants: Ketonic Solvents. U.S. Environmental Protection Agency, Washington, D.C. EPA 560/2-76-003 (As cited in EPA 1984)

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH). 1978. Criteria for a Recommended Standard--Occupational Exposure to Ketones. DHEW (NIOSH) Publication No. 78-173

NELSON, K.W., EGE, J.F., ROSS, N., WOODMAN, L.E., SILVERMAN, L. 1943. Sensory response to industrial solvent vapors. J. Ind Hyg Toxicol. 25:282-285

SCHWETZ, B.A., LEONG, B.K.J., and GEHRING, P.J. 1974. Embryo- and fetotoxicity of inhaled carbon tetrachloride, 1,1-dichloroethane and methyl ethyl ketone in rats. Toxicol. Appl. Pharmacol. 28:452-464 (As cited in EPA 1984

SMITH, A.R. and MAYERS, N.R. 1944. Poisoning and fire hazards of Butanone and acetone. Ind Bull NY State Dept of Labor 23:174

SMYTH H.F., CARPENTER, C.P., WEILL, C.S., POZZANI, U.C., and STRIEGEL J.A. 1962. Range finding toxicity data: List VI. Am Ind Hyg Assoc J 23:95-107

TADA, O., HAKAAKI, K., and FUKABORI, S. 1972. Experimental study on Acetone and methyl ethyl ketone concentrations in urine and expired air after exposure to those vapors. Rodo Kagaku 48:305-331 (as cited in Krasavage et al. 1981)

TAKEUCHI, Y., ONO, Y., HISANAGA, N., ET AL. 1983. An experimental study of the combined effects of n-hexane and methyl ethyl ketone. Br. J. Ind. Med. 40:199-203 (As cited in EPA 1984)

VERSCHUEREN, K. 1983. Handbook of Environmental Data on Organic Chemicals. Van Nostrand Reinhold, New York

WILLIAMS, R.T. 1959. Detoxication Mechanisms on the Metabolism and Detoxication of Drugs, toxic substances and other organic compounds. 2nd ed. Chapman and Hall, London p. 96

APPENDIX D

Calculation of Chemical Intakes and Cleanup Goals

APPENDIX D

SUMMARY OF CALCULATIONS USED FOR ESTIMATION OF CONTAMINANT INTAKES AND FOR CALCULATION OF CLEAN-UP GOALS

The first part of this appendix provides an explanation of the approach used to calculate human exposures to contaminants present and the site. The second part of this appendix provides an explanation of the methods used for calculating clean-up goals.

ESTIMATION OF CONTAMINANT INTAKES

INCIDENTAL INGESTION OF CONTAMINATED SOIL

The total contaminant dose ingested over an individual's lifetime is estimated by the equation:

$$TD_i = C_s(F)(L)(DER)(X)(ABS)$$

where

TD_i = total dose ingested over a lifetime in mg;
C_s = chemical concentration in soil in mg/kg;
F = frequency of exposure in days per year;
L = length of exposure in years;
DER = daily exposure rate for incidental soil ingestion in mg/day;
X = conversion factor of 1 kg/10^6 mg; and
ABS = soil ingestion absorption factor.

Using the total lifetime dose calculated above, the chronic daily intake averaged over a lifetime is calculated by the equation:

$$CDI = TD_i(Y)/(L)(BW)$$

where

CDI = chronic daily intake in mg/kg/day;
Y = conversion factor of 1 year/365 days;
L = lifetime of 70 years; and
BW = body weight in kg.

DERMAL CONTACT WITH CONTAMINATED SOIL

Total contaminant contact with the skin over an individual's lifetime is estimated by the equation:

$$TD_d = C_s(F)(L)(CR)(A)(X)$$

where

TD_d = total dermal exposure over a lifetime in mg;
C_s = daily soil contact rate in mg/cm^2;

A = skin surface area exposed in cm^2.

The daily dermal exposure averaged over a lifetime is calculated by the equation:

$$ADE = TD_d(Y)/(L)(BW)$$

where

ADE = average dermal exposure in mg/kg/day.

INGESTION OF CONTAMINATED WATER

Chronic daily intake of chemical contamination through ingestion of drinking water over an individual's lifetime is estimated by the equation:

$$CDI = \frac{(C_w)(IR)(ABS)}{(ABW)}$$

where

C_w = chemical concentration in water in mg/liter;
IR = ingestion rate in liters per day;
ABS = ingestion absorption factor (%);
ABW = average body weight in kg.

CALCULATION OF CLEANUP GOALS FOR GROUNDWATER

The groundwater scenario used to calculate cleanup goals assumes that individuals ingest water from shallow site contaminated groundwater. This is a worst case assumption because individuals are likely to use drinking water from deeper wells. The calculation used to obtain cleanup goals for MEK, acetone, cyclohexanone, and diglyme is:

$$C_w = \frac{(RfD)(ABW)}{(IR)(ABS)}$$

where

IR = ingestion rate in liters per day.

APPENDIX E

Quality Assurance Project Plan

1. Title Page

QUALITY ASSURANCE PROJECT PLAN FOR

REMEDIAL ACTION - 5440/5200 PATRICK HENRY DRIVE
Project Title

Document Control Number

XIDEX CORP.
Organization's Name

305 SOQUEL WAY Sunnyvale CA 94086
Address

408 739-4170
Telephone Number

APPROVALS:

ERIC TERHORST CHEMICAL ENGINEER 4/27/87
Name and Title of Organization's Project Manager — Date

ERIC TERHORST CHEMICAL ENGINEER 9/16/87
Name and Title of Organization's Quality Assurance Official — Date

California Regional Water Quality Control Board, San Francisco Bay Region
Quality Assurance Official — Date

XIDEX CORPORTATION
GROUNDWATER CLEANUP 5440/5200 PATRICK HENRY DRIVE, SANTA CLARA
QUALITY ASSURANCE PROJECT PLAN

TABLE OF CONTENTS

PROJECT DESCRIPTION.....1
PROJECT ORGANIZATION.....2
QA OBJECTIVES.....3
SAMPLING PROCEDURES.....4
SAMPLE CUSTODY.....5
CALIBRATION PROCEDURES.....6
ANALYTICAL PROCEDURES.....7
DATA REDUCTION.....8
QC CHECKS.....9
PERFORMANCE AUDITS.....10
PREVENTITIVE MAINTENANCE.....11
DATA REVIEW.....12
CORRECTIVE ACTION.....13
QA REPORTS.....14

PROJECT DESCRIPTION

The objective of this project is to clean up groundwater contamination at Xidex's 5440/5200 Patrick Henry Drive manufacturing facilities. All monitoring, extraction, and treatment equipment is in place. The remaining tasks of the project are to clean up the contamination and to document that cleanup.

The groundwater contamination resulted from spills at two tank farms owned and operated by Dysan Corporation, now a subsidiary of Xidex Corp. Solvents, including 2-butanone, isopropyl alcohol, and acetone have been stored in the tanks and have been detected in the groundwater. The tank farms are placed underground in an area where the groundwater is very shallow; hence, a small spill has resulted in the contamination. The tanks are no longer used.

Current data show that the solvent contamination is being contained and removed. The intended use of data gathered according to this plan is document this process. Remaining project activities include continued extraction of groundwater and continued monthly monitoring of groundwater quality, culminating in a proposal to the RWQCB in 1988 for Final Cleanup Actions.

Groundwater samples are collected from seven wells monthly and eleven wells quarterly. Data are reviewed by the Project Manager and and reported to the RWQCB bimonthly. Groundwater level measurements are taken bimonthly and reported bimonthly.

PROJECT ORGANIZATION AND RESPONSIBILITY

Project Manager and Quality Assurance Officer (Eric Terhorst, Chemical Engineer, Xidex Corp.)

Duties include directing the course project follows, preparation of reports for regulating agencies, directing sample collection and insuring sample quality. Coordination with outside labs and contractors. Enforcement of protocols to insure quality of sampling data is the project manager's primary objective.

Project Technologists

Questa Engineering Corp.-- Registered Civil Engineers. Responsible for water level measurements and hydrogeologic data reduction and analysis.

Exceltech-- Responsible for groundwater sample collection.

Scientific Environmental Lab-- Responsible for treatment system water quality analysis.

Enseco/Cal Labs-- Responsible for groundwater quality analysis.

QA OBJECTIVES FOR MEASUREMENT OF DATA

The general QA objectives are to employ accurate, complete, and precise data collection and evaluation procedures to obtain comparable and representative information. The primary goal of the project manager is to insure that procedures are followed which will produce data that meet the QA objectives. This goal is as important to Xidex as it is to the RWQCB. A summary of goals for accuracy, completeness and precision for groundwater quality chemical analysis is presented in Table 1.

TABLE 1
QA GOALS FOR GROUNDWATER QUALITY LABORATORY ANALYSIS

MEASUREMENT PARAMETER	ACCURACY GOAL (1)	PRECISION GOAL (2)	COMPLETENESS GOAL
EPA 8015	100±10	20	100%

1. Percent spike recovery.

2. Relative percent difference.

Accuracy of field analyses are described under "Sampling Procedures." Comparibility of field analyses is insured by the use of consistent methods and equipment for water level measurements, and by the use of consistent units for reporting data. Comparibility of laboratory analyses is insured by using the same laboratories for analysis throughout the history of the remedial action and by using consistent units (parts per million). Representativeness of field and laboratory data is insured by using standard methods for data collection and and sample custody.

SAMPLING PROCEDURES

Two parameters are measured:

1) Groundwater quality (lab);

2) Groundwater levels (field).

Only groundwater levels are measured in the field. Measurements are taken using an electric sounder in conjunction with engineer's scaled steel tapes to record measurements to the nearest 0.01 foot. Routine procedures have been developed to ensure that the data are consistent, reproducible and representative. All wells on the site are measured within one day. All apparatus are cleaned between wells with clean water to prevent cross-contamination (past experience has shown this cleaning is adequate). Groundwater levels are measured by experienced personnel from Questa Engineering Corp.

Groundwater samples are collected by specially trained personnel from Exceltech, Inc. The following procedure is used:

1. Water level is measured to determine the appropriate amount of water to bail from the monitoring well.

2. Four to five well volumes are evacuated using a clean steel, PVC, or Teflon hand bailer. Since the wells are shallow and groundwater flows readily, this method is sufficient for collecting representative samples.

3. The sample is removed from the bailer through a valve at the bottom of the bailer and placed in a clean 40-ml VOA bottle.

4. The sample is transferred to the lab using the custody procedures outlined below.

5. Bailers are cleaned with successive rinses of TSP detergent solution and pure water. The bailers are placed in a larger tube with the solution and rotated vertically to insure all surfaces come into contact with the cleaning solution.

6. Sampling times and well volumes are documented on the field water sampling form, an example of which is enclosed.

WATER QUALITY SAMPLING FORM

DATE _____ SAMPLER _____

WELL ID	SAMPLE ID	TIME	WATER VOLUME PURGED (gallons)	NOTES (pH, Water conditions, Temperature, Conductivity

SAMPLE CUSTODY

1. The bottle is labeled with pertinent sampling data identifying the time, date, and location of the sample and stored on ice.

2. Cooled samples are transferred to Xidex possession immediately and shipped to the lab by courier. No more than 24 hours passes between sampling time and arrival at the lab.

3. Samples are shipped with a custody form, example attached. Designated lab personnel receive the samples, verify the information on the custody form, assign a lab number to the samples, and transfer the samples to secure storage. The lab returns a custody form confirming receipt, example of which is also attached. The lab QA manuals, attached, give further details.

CHAIN OF CUSTODY RECORD

PROJECT NO	PROJECT NAME
1543G	Xidex

SAMPLERS (Signature) Bill James (CB:11 Talbot)

NO	DATE	TIME	DRIVE	GRAB	STATION AND LOCATION	Bottles	TEST REQUESTED	REMARKS
B-11	8-24				A & B	2		
B-19	↓				↓	↓		
B-25								
B-26								
B-31								
B-33								
B-35								
OW-2	↓				↓	↓		
	1987							

RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY:	DATE	TIME	RECEIVED BY
Bill James	8-24-87	2:00PM					
RELINQUISHED BY	DATE	TIME	RECEIVED BY	RELINQUISHED BY	DATE	TIME	RECEIVED BY LABORATORY

REMARKS

Eric Terhorst - Andy Cohen

DISTRIBUTION

EXCELTECH
41638 CHRISTY STREET
FREMONT, CA 94538
(415) 659-0404
CONT. LIC #464324

FORM DATED 1-28-87

Enseco - CAL Lab.
2544 Industrial Blvd
West Sacramento, California 95691
(916) 372-1393

31057

Date Received : 26-Aug-1987 08:48

Date Due :

XIDEX CORPORATION
305 SOQUEL WAY
SUNNYVALE, CA. 94086-3418

Project ID,
EPA Case, RMA Lot : 1543G

P.O. Number :

Delivered by: : PONY EXPRESS

Storage Location :

408-739-4170

Logged in by : CHRIS

CID: XIDEX

Ticket Information:
SEVEN WATER SAMPLES WERE RECEIVED UNDER CHAIN OF CUSTODY IN DUPLICATE 40-ML. VOA VIALS(14).

CAL ID	Enseco fac/ Enseco ID	Client's label info (EPA Tag No., EPA label)	Date/Time Samp.	Containers
31057-001		B-11	24-Aug-87	2-40ML.VOA
31057-002		B-19	24-Aug-87	2-40ML.VOA
31057-003		B-25	24-Aug-87	2-40ML.VOA
31057-004		B-26	24-Aug-87	2-40ML.VOA
31057-005		B-31	24-Aug-87	2-40ML.VOA
31057-006		B-33	24-Aug-87	2-40ML.VOA
31057-007		B-35	24-Aug-87	2-40ML.VOA

ACCOUNTS PAYABLE
AUG 31 1987
RECEIVED

Samples not destroyed in testing are retained a maximum of thirty (30) days unless otherwise requested.

Supervisor: BNB Date Approved: Notebook:

CALIBRATION PROCEDURES

Field Equipment

The spacing of the electric sounder has been calibrated with a steel tape. One measurement per round of water level measurements is performed with a steel tape in order to calibrate the electric sounder.

Laboratory Equipment

All lab equipment is calibrated according to the referenced analytic method (i.e, EPA 8015). Additional lab calibration and maintenance is discussed in the attached lab QA manuals.

ANALYTICAL PROCEDURES

Analysis of groundwater samples is performed by Scientific Environmental Labs and by Enseco/Cal Labs. All samples from monitoring wells are analyzed by the latter and samples from the treatment system are analyzed by the former.

Water samples are analyzed for isopropyl alcohol, acetone and 2-butanone (methyl ethyl ketone) by EPA method 8015, a gas chromatographic (GC) method. Samples are analyzed by direct injection to the GC column. The detection limit for all compounds is 1 part per million (ideal). Actual detection limits may vary because of sample quality.

DATA REDUCTION, VALIDATION AND REPORTING

Field Data

Ground water level measurements are reviewed by senior engineers at Questa Engineering Corp. and by the project manager. Data are validated by comparison to history. Data which can not be validated are noted as such in data summaries. Water levels are measured bimonthly and are reported to 0.01 foot.

Lab Data

Ground water quality measurements are reviewed by senior chemists at the labs and by the project manager. Lab results are compared to historical data to gauge their validity. In the event of anomalous results which can be attributed to the laboratory, the project manager notifies appropriate lab personnel and corrective actions are taken.

Calculations in data reduction are performed according to standard methods approved by the USEPA. Water quality measurements are made monthly and are reported to 0.1 ppm from 0-10 ppm, 1 ppm from 10-100 ppm, to 10 ppm from 100-1000 ppm and to 100 ppm when the concentration is over 1000 ppm.

QUALITY CONTROL CHECKS

Blind Duplicates

One blind duplicate per sampling run is submitted to the lab for analysis. This sample has a unique sample number so the lab can not identify it as a duplicate.

Pump Blank

One pump blank per sampling run is collected by running deionized water through a clean bailer. If anomalies show up in the analysis (particularly if a normally clean well comes up contaminated), the pump blank is analyzed to check the sampling method.

Split Samples

When significant anomalies arise, resampling is performed to check the results. When resampling is performed, split samples are sent to both laboratories. We use Enseco as a check on Scientific Environmental and vice versa. Such a check is performed only if unexpected results occur, resulting in some doubt about a lab's technique.

Lab QA Checks

Both labs routinely run lab QC checks at a rate of 10%. Such checks include method blanks, spiked samples, and duplicates, using both client samples and lab control samples. Lab QC measures are discussed in detail in the lab QA manuals, attached.

PERFORMANCE AUDITS

Monthly auditing of field and analytical activities is performed by the project manager. Audit procedures include observation of field procedures previously outlined in this report, review of documentation and data and review of analytical reports. Regular audits are used to evaluate the sampling and analytical programs for adherence to the QA procedures, and corrective action follows if necessary.

PREVENTITIVE MAINTENANCE

Exceltech, Scientific Environmental, and Enseco/Cal Labs are responsible for maintaining their equipment in clean, working order as a condition of doing business with Xidex. The bailers used by Exceltech are steam-cleaned after each use for a client. The water level measuring device is kept clean by Questa (no other maintenance other than regular battery changes is required).

Monitoring wells are purged before each sampling, which process we have found is adequate for preventing "silting up" of the wells. Thousands of gallons of water are pumped daily through the extraction wells which also prevents silting problems.

DATA REVIEW

Data are qualitatively reviewed for accuracy, precision, and completeness by the project manager, whose primary goal is to report accurate data. Given the variability of natural systems, inherhent limits of analytic methods and sampling procedures, concentrations which change with time and small sample size, we do not perform statistical evaluations of the data. Data accuracy is regularly reviewed by the project manager and project technologists and compared with historical results. Data which deviate significantly from historical trends are flagged and resampling is performed to determine whether the anomaly represents a new trend or is simply invalid.

CORRECTIVE ACTION

Corrective actions are initiated by the project manager in response to questionable data. When anomalies arise samples are recollected and/or reanalyzed.

QA REPORTS

Quality assurance is the responsibility of the project manager. Quality is audited by the project manager once monthly, when water quality samples are collected and analyzed. The audit includes review of laboratory data accuracy, precision and completeness and comparison with stated goals. If goals are not met, the project manager discusses the problem with laboratory representatives to insure that QA goals are understood and to prevent future problems. Quality assurance is reviewed in reports to the Regional Board every two months.

XIDEX
An anacomp Company

VIA AIRBORNE EXPRESS

CALIFORNIA REGIONAL WATER
OCT 0 2 1989
QUALITY CONTROL BOARD

September 29, 1989

Steve I. Morse, Chief
South Bay Toxics Division
California Regional Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street, Room 6040
Oakland, CA 94607

Dear Mr. Morse:

Xidex Corporation is pleased to present the enclosed "Final Remedial Action Plan for the 5200 and 5440 Patrick Henry Drive Facilities" (the "Plan") prepared by ICF Technology, Incorporated.

The Plan presents a site history showing significant progress in cleanup. The effectiveness of the existing extraction system is demonstrated. Final cleanup goals based upon a detailed risk analysis are presented.

Standards established in the cleanup goals have already been met at 5200 Patrick Henry Drive (PHD). The plan presents a methodology for demonstrating final cleanup of the 5200 PHD site. Cleanup goal standards are exceeded in only three wells at 5440 PHD. The Plan proposes additional testing and continued pumping at 5440 PHD until the standards are met. The Plan also proposes a methodology for demonstrating final cleanup of 5440 PHD.

During the course of ICF's investigation, it was determined that additional sampling and analysis for diesel was needed to augment the data base. These samples were collected but we have not yet received the laboratory analysis. The results of these analysis will be submitted in the next bi-monthly report.

Although the Plan does not indicate resuming pumping of groundwater until the summer of 1990, it is Xidex's intention to resume pumping at 5440 PHD when air quality permitting issues are resolved.

P.O.Box 58053
Santa Clara, Ca 95050
(408) 988-3472

Xidex requests early approval of the Plan so that we may implement the proposed quarterly monitoring schedule and begin the testing and data collection necessary to finalize the groundwater cleanup project at the facilities.

If you have any questions, please call me at (408) 970-6453.

Very truly yours,

Chris van der Woerd

Chris van der Woerd
Manager of Environmental Affairs

CVDW:js

Enclosure

cc: David Parker, City of Santa Clara
Lee Esquibel, Santa Clara County Health Department
Ms. Pamela Foley, W.F. Batton & Company, Inc.
Howard Hatayma, California Department of Health Services
Tom Iwamura, Santa Clara Valley Water District
Chuck Groat, Xidex
Jim Larkin, Xidex
Jesse McDaniel, Anacomp

Questa Engineering Corporation
CIVIL, ENVIRONMENTAL & AGRICULTURAL ENGINEERS

August 13, 1986

Mr. Eric Terhorst
Xidex Corporation
Dysan Division
305 Soquel
Sunnyvale, CA

Subject: Groundwater Response During Cyclic Pumping At Dysan

Dear Eric:

As requested, our firm monitored water levels in selected monitoring and extraction wells at Dysan Division during a three day test period, July 14 to 16, 1986. Water levels were monitored to gauge the response of the water table in the vicinity of Building 5200 and Building 5440 tank farms during extraction of groundwater for treatment. Provided here is a summary of monitoring results.

Figures 1 and 2 show well locations at each tank farm. A summary of pumping data are provided in Table I. Three drawdown-recovery graphs have been prepared to illustrate water level fluctuations: Figure 3 shows tidal influences at Well B-15; Figure 4 shows drawdown curves at Building 5440 tank farm, and Figure 5 shows drawdown-recovery curves at Building 5200 tank farm. The following are apparent from these plots:

- Figure 3 shows a general decline in the water table combined with cyclic fluctuations due to tidal influences exerted by nearby Calabazas Creek. The general decline of the water table is likely due to the effect of pumping at the 5200 tank farm which, over time, affects the water table up to several hundred feet from the extraction well, R-1. A similar condition could be expected at the 5440 tank farm area.

- Figure 4 shows water table fluctuations in response to pumping, creating a zone of influence spreading more or less radially from each of the two pumped wells. Tidal influences are also apparent at some of the monitoring wells around Building 5440 tank farm; however, the effect is small in comparison to the pumped drawdown.

- Figure 5 shows less pronounced drawdown curves, and greater degree of tidal influence in and around the Building 5200 tank farm as compared to the Building 5440 tank farm; this is primarily due to the lower extraction rate at Building 5200 (7.4 gpm) compared with the 5440 tank farm (14.35 gpm).

Also provided (see Figure 6) is a north-south cross section, illustrating the overlapping of wells R-2 and R-3. As anticipated, these wells will act in concert to facilitate extraction of water and contaminants from the tank farm backfill and surrounding soil zones.

Analysis of pumping and drawdown data during this test supports our earlier assessment of potential well yields. Pumping rates of about 7 gpm can be sustained at each of the extraction wells.

With respect to the drawdown and recovery periods, the monitoring data indicate that a relative equilibrium between extraction and recharge to the well is established about 6 to 8 hours after pump start-up under the prescribed rates. Recovery curves, on the other hand, indicate a much longer time (e.g., 12 to 18 hours) for the water table to return to its original level. This would suggest an optimum operation cycle of 6 to 8-hours pumping followed by a 16 to 18-hour recovery period. This type of pumping schedule would also have the following advantages:

1. Full water table recovery between pumping would very likely increase the leaching of contaminants from the soil, and probably shorten the overall time period for groundwater clean-up.

2. The pumping and treatment operation could be confined to normal business hours which would provide for greater attention to monitoring and maintenance of the equipment and overall operation.

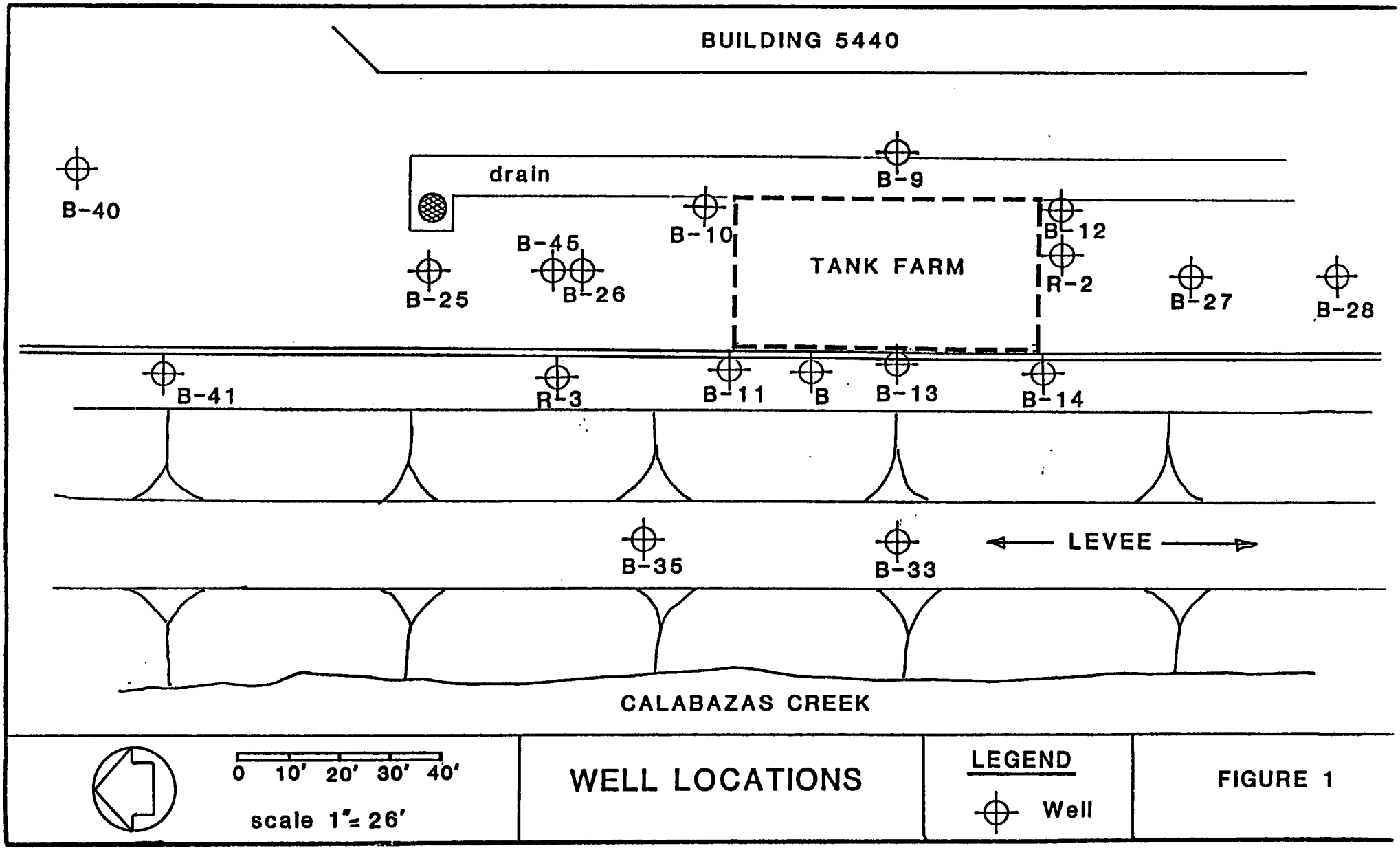
Please call if you have any questions concerning the test results and conclusions.

Sincerely,

Norman N. Hantzsche, P.E.
Managing Engineer

RCE 24750

Ref. 8679L14


BUILDING 5440
drain
B-40
B-9
B-10
B-12
B-45
B-25
B-26
TANK FARM
R-2
B-27
B-28
B-41
R-3
B-11
B
B-13
B-14
B-35
B-33
LEVEE
CALABAZAS CREEK
0 10' 20' 30' 40'
scale 1"= 26'
WELL LOCATIONS
LEGEND
Well
FIGURE 1

APPENDIX F

FIGURE 2
BUILDING 5200 TANK FARM WELL LOCATIONS
from 1984 McLaren report

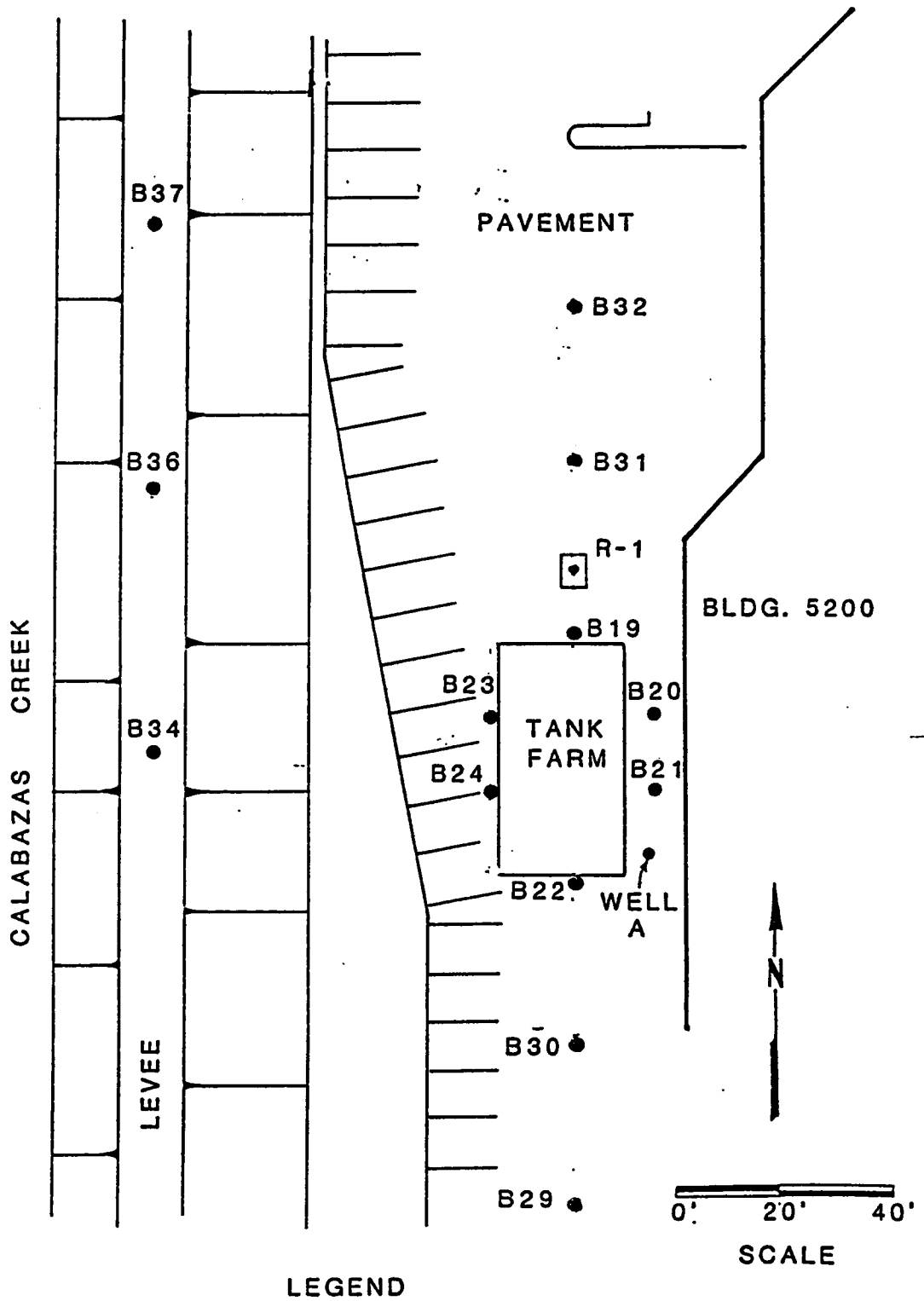


TABLE 1
Well Extraction Data

Date	Time	Flow Meter Readings (Gallons) P-1 (R-3)	P-2 (R-2)	P-3 (R-1)
July 14	9:20	89,435	129,316	133,010
	21:30	93,823	133,508	137,351
Hours	10.5			
Gallons Pumped		4,388	4,192	4,341
July 15	9:00	93,823	133,508	137,351
	21:00	99,318	138,683	142,910
Hours	12			
Gallons Pumped		5,495	5,175	5,459
July 16	9:00	99,318	138,683	142,910
	21:00	104,756	143,695	148,423
Hours	12			
Gallons Pumped		5,438	5,012	5,513
Total Hours	34.5			
Total Gallons Pumped		15,321	14,379	15,313
Average Yield (GPM)		7.4	6.95	7.4

Total Gallons Pumped: 45,013 Gallons
Average Combined Yield: 21.75 GPM

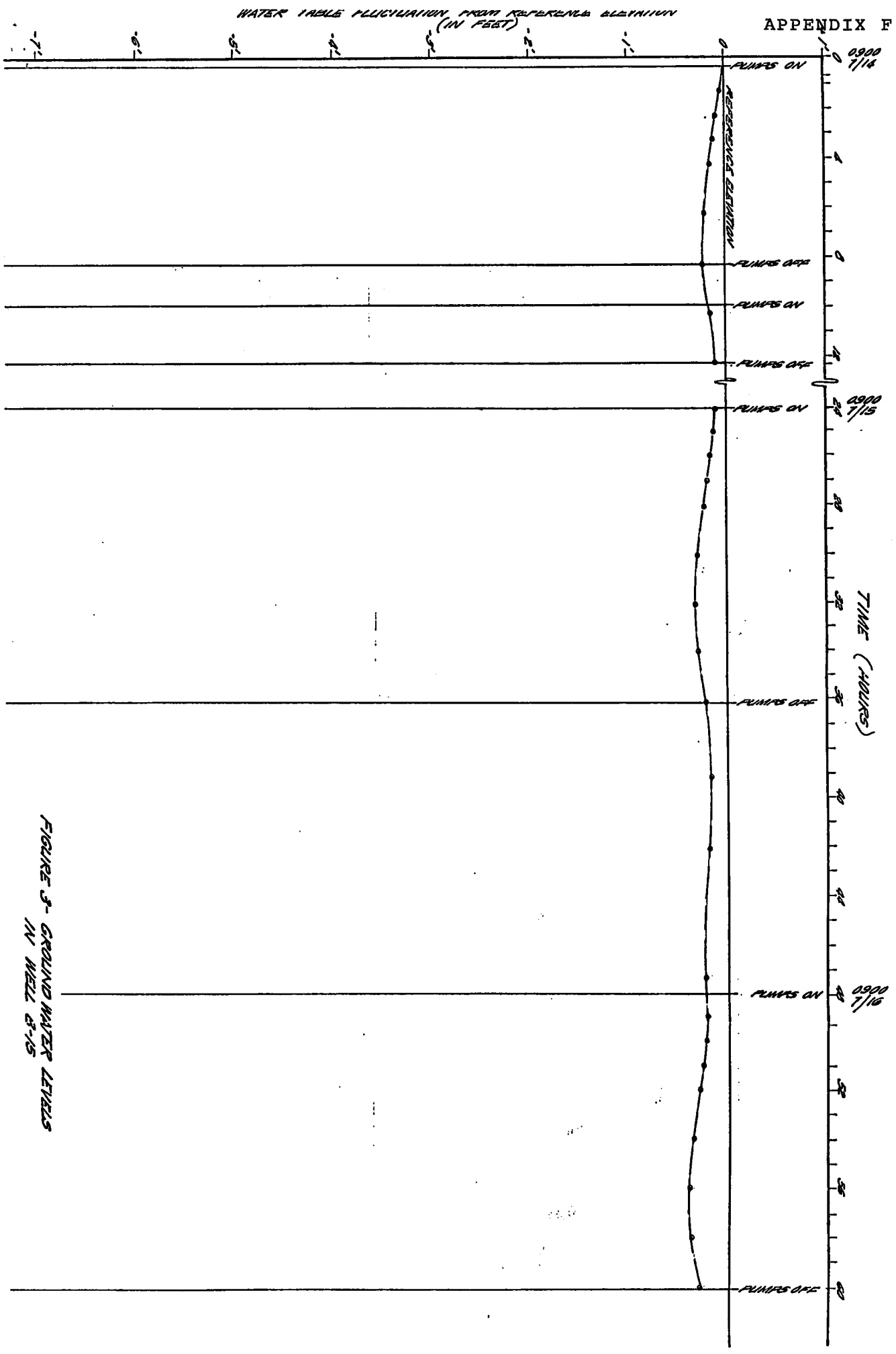


FIGURE 3- GROUND WATER LEVELS IN WELL GT-15

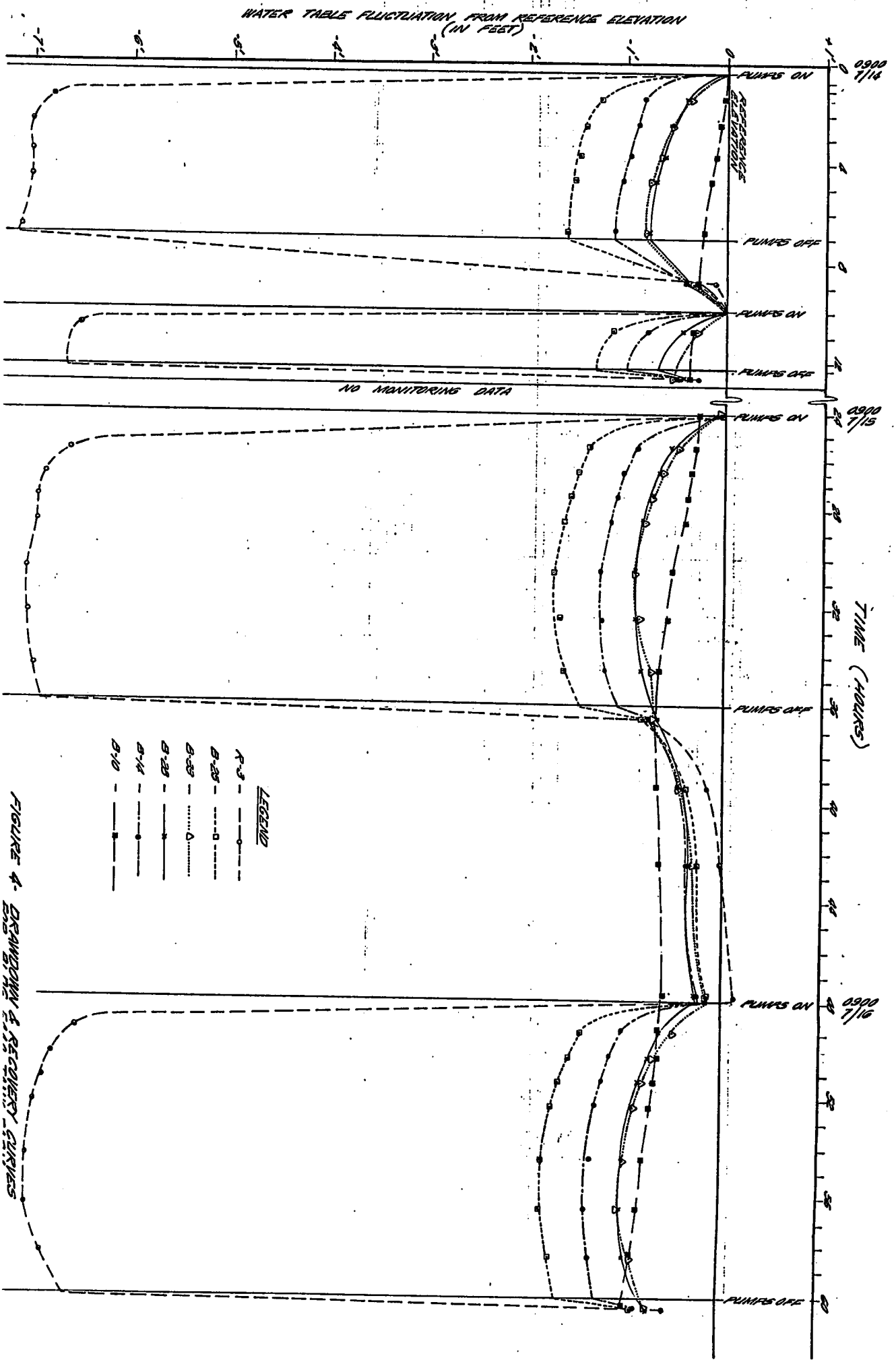


FIGURE 4- DRAWDOWN & RECOVERY CURVES

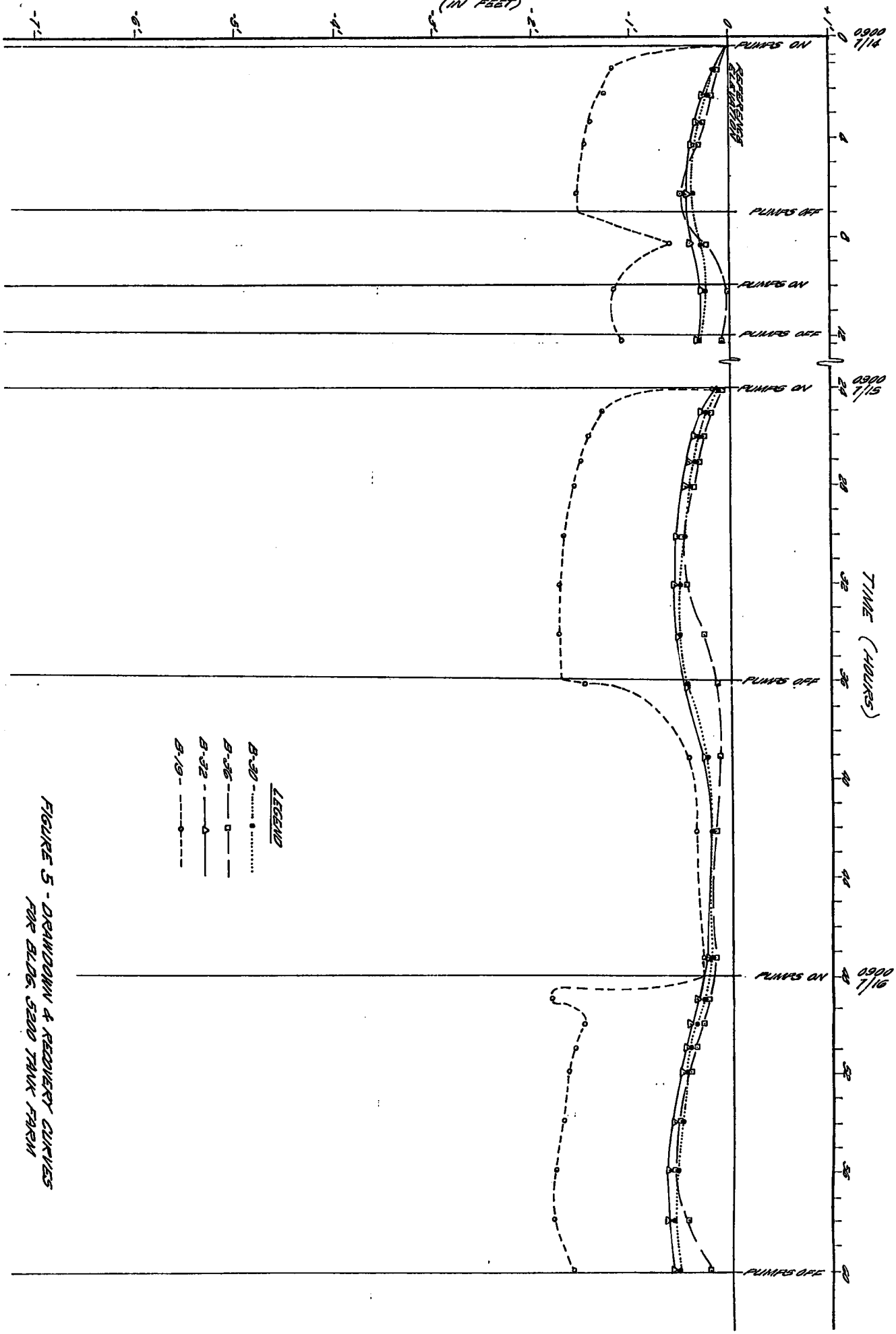
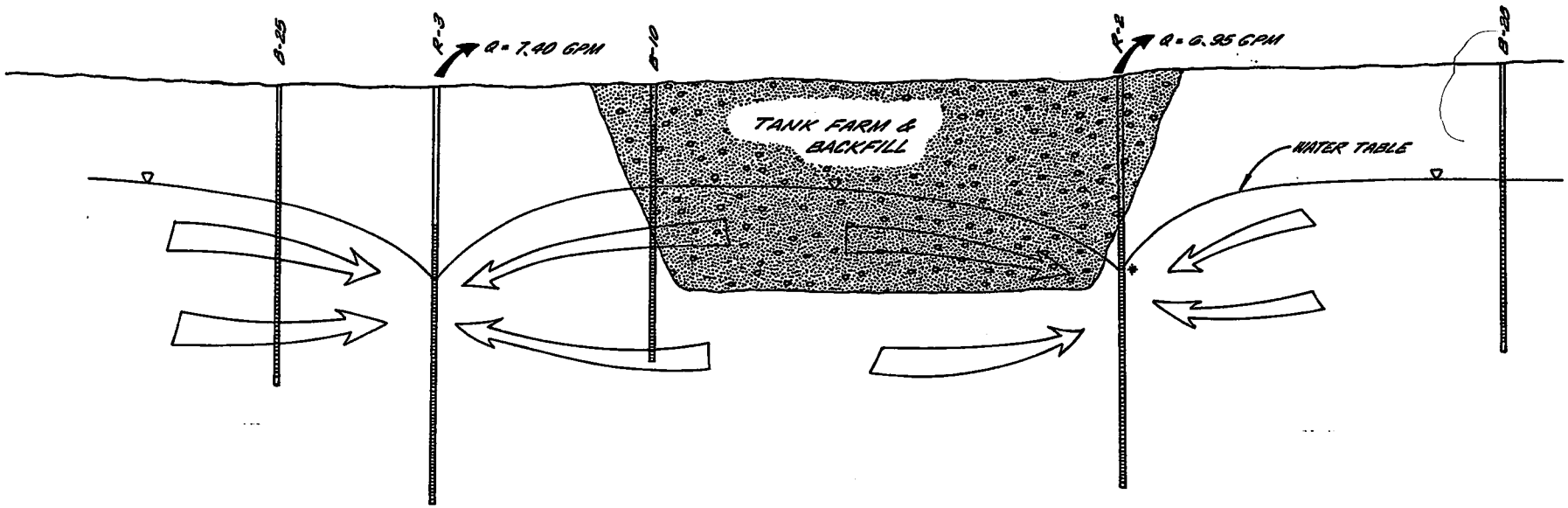
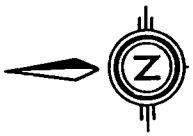


FIGURE 5 - DRAWDOWN & RECOVERY CURVES FOR BLDG. 5200 TANK FARM





*- APPROXIMATED

SCALE
VERTICAL IS 2X EXAGGERATION

FIGURE 6- N-S CROSS-SECTION OF BLDG 5440 TANK FARM DURING PUMPING (7-15-86 1540 HRS.)

Waste Discharger System Form
INSPECTION

Waste discharger ID # 2 438118 001 (e.g. 2 417119001)

Name of agency/facility: Xidex (Dysan) (optional)

Inspection date (YY/MM/DD): 92/03/27

Inspection type (check one):

A1	____	"A" type compliance - comprehensive inspection with sampling (EPA type S)
B1	X	"B" type compliance - routine non-sampling inspection (EPA type C)
02	____	Non-compliance follow-up - to verify correction of violation
03	____	Enforcement follow-up - to verify enforcement order conditions being met
04	____	Complaint - made in response to a complaint
05	____	Pre-requirement - to gather info. in preparation for new or revised requirements
06	____	Miscellaneous - any inspection not mentioned above

N — Is this a Type "AN" or "BN" compliance inspection of an NPDES facility? (Y/N)

Note: The "_N" refers to NPDES facility inspections we do to meet our commitment to EPA. If you answer yes, you should fill out EPA's inspection form and send to EPA. We typically perform these "_N" inspections 1/year for NPDES majors and once during the life of the permit for NPDES minors.

N — Any VIOLATIONS? (Y/N) If so, please fill in the WDS violation form (OVER)
Pending sample results? (Y/N) _____

N — Was this a quality-assurance based inspection? (Y/N)

N/A — Were bioassay samples taken? (Y/N)
If so, what bioassay method was used? (Static = S, Flowthrough = F) _____

Inspector's summary (REQUIRED - max 100 characters):

ANNOUNCED / UNANNOUNCED (circle one): GW extraction ceased in 1990. when plant shut, VOC conc. in GW still declining

Inspector's initials: SAH

Additional comments (optional): _____

Attach additional pages as necessary

Routing: 1. DH _____ 2. Inspector SAH _____ 3. File # 2189.8118 (Inspector fills in)

Waste Discharger System Form
VIOLATION

Waste discharger ID # 2_____ (e.g. 2 417119001)

Name of agency/facility: _____
(optional)

Date violation occurred (YY/MM/DD): ____/____/____ Note: If the violation was noted in a monitoring report, use the SMR date. If the violation was noted on an inspection, use the inspection date.

Date SMR or technical report received (YY/MM/DD): ____/____/____ Note: Refer to date-stamp.
(if applicable)

Date violation was determined (YY/MM/DD): ____/____/____ Note: Use the date you reviewed the SMR or the inspection date.

Type of violation (check one):

_____ A. Violation of administrative enforcement order (CAO or CDO) or judicial order
_____ B. Violation of compliance schedule in WDR or NPDES permit
_____ C. Major violation of effluent limits Check only if violation threatens or results in hazard to public health or fish kill or similar severe impact on aquatic life.
_____ D. Failure to provide SMR or other technical report
_____ E. Significant violation of effluent limits not included in C. above
_____ F. Violation of Basin Plan prohibitions (usually against discharge under certain conditions)
_____ G. Incidents of unauthorized discharge not covered in the categories above

Comments (REQUIRED - max 200 characters): _____

_____

_____

_____

Staff initials: _____

Note: Use more than one violation form if the violations cover two or more reporting periods, or if there are two or more violation categories (e.g. BOD and coliform violations in the same month that fall into categories E and C, respectively). The comments should describe the violation - which effluent limits (or schedule) violated, how often, by how much.

Routing: 1. DH _____ 2. Originator _____

Anacomp, Inc.

(Formerly Xidex Corporation)

Monitoring Report
4th Quarter 1992

5200 Patrick Henry Drive
5440 Patrick Henry Drive
Santa Clara, California

2189-8118

XIDEX
An anacomp Company

June 14, 1989

JUN 15 1989

Mr. John Wolfenden
California Regional Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street, Room 6040
Oakland, CA 94607

Report in report file.

Dear Mr. Wolfenden:

Enclosed is the Bi-Monthly Monitoring Report by Xidex Corporation for its facilities located at 5200 and 5440 Patrick Henry Drive (PHD), Santa Clara, for the month of June 1989.

Quarterly sampling and analysis as prescribed by Board Order 85-131 was conducted during April.

Monitoring data indicate that there are no EPA Method 624 volatiles in the groundwater at 5200 PHD. Monitoring data for 5440 PHD indicate the continual presence of 2-Butanone (MEK), Acetone and Isopropyl Alcohol.

These data generally indicate that concentrations of these compounds have significantly decreased during the past year and there is no migration of these materials to parameter wells.

As previously reported, Xidex has not resumed groundwater extraction due to air quality permitting issues. Xidex requested permission from the San Jose/Santa Clara Water Pollution Control Plant to use non-treated groundwater as a partial water supply for an air scrubber located at 5440 PHD. That agency has approved the request contingent upon a one-day test to verify that discharge standards can be met. However, the Bay Area Air Quality Management District has indicated that the test and subsequent operation will require a permit modification application for the air scrubber. Xidex is currently preparing this application.

P.O.Box 58053
Santa Clara, Ca 95050
(408) 988-6472

2187. 2118

If you have any questions, please call me at (408) 970-6453.

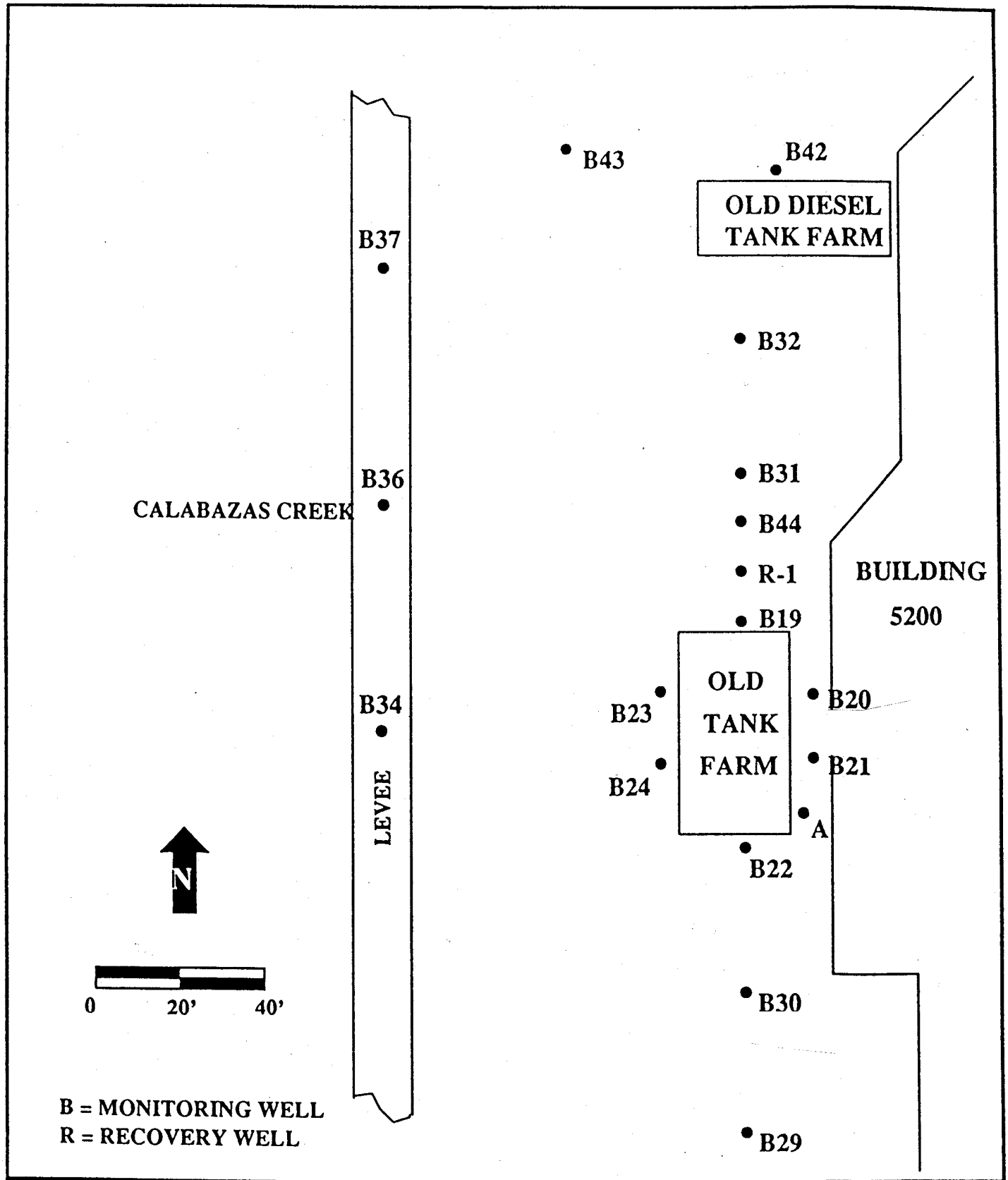
Very truly yours,

Chris van der Woerd

Chris van der Woerd
Manager, Environmental Affairs

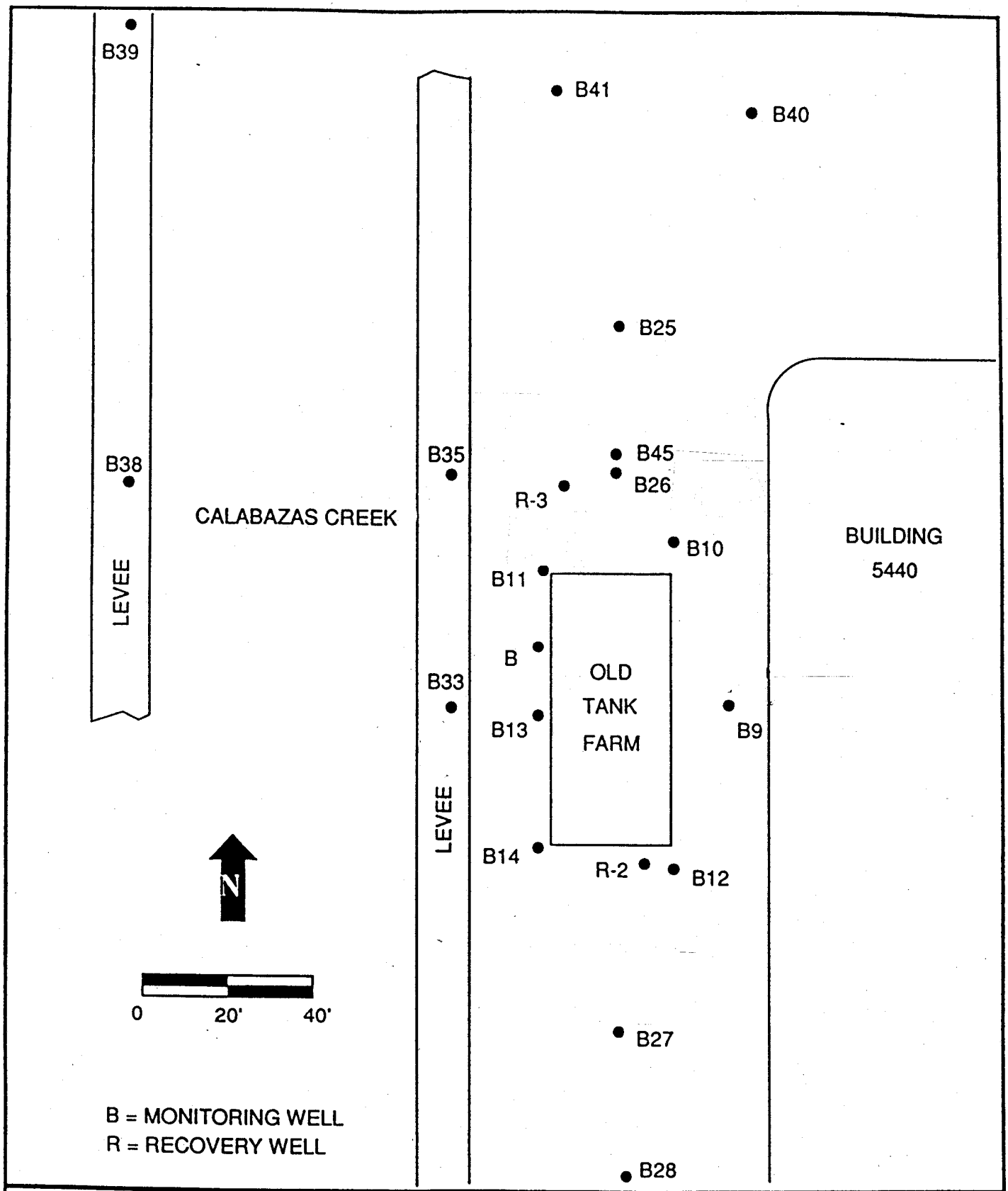
CVDW:js

cc: Robert Campbell, City of Santa Clara
Less Esquibel, Santa Clara County Health Department
Ms. Pamela Foley, W.F. Batton & Company, Inc.
Howard Hatayma, California Department of Health Services
Tom Iwamura, Santa Clara Valley Water District
Chuck Groat, Xidex
Jim Larkin, Xidex
Jesse McDaniel, Anacomp



5200 Patrick Henry Drive

FIGURE


B39
B41
B40
B25
B38
B35
B45
B26
R-3
CALABAZAS CREEK
B10
BUILDING
5440
B11
LEVEE
B
OLD
TANK
FARM
B33
B13
B9
LEVEE
B14
R-2
B12
N
0
20'
40'
B27
B = MONITORING WELL
R = RECOVERY WELL
B28
5440 Patrick Henry Drive

FIGURE

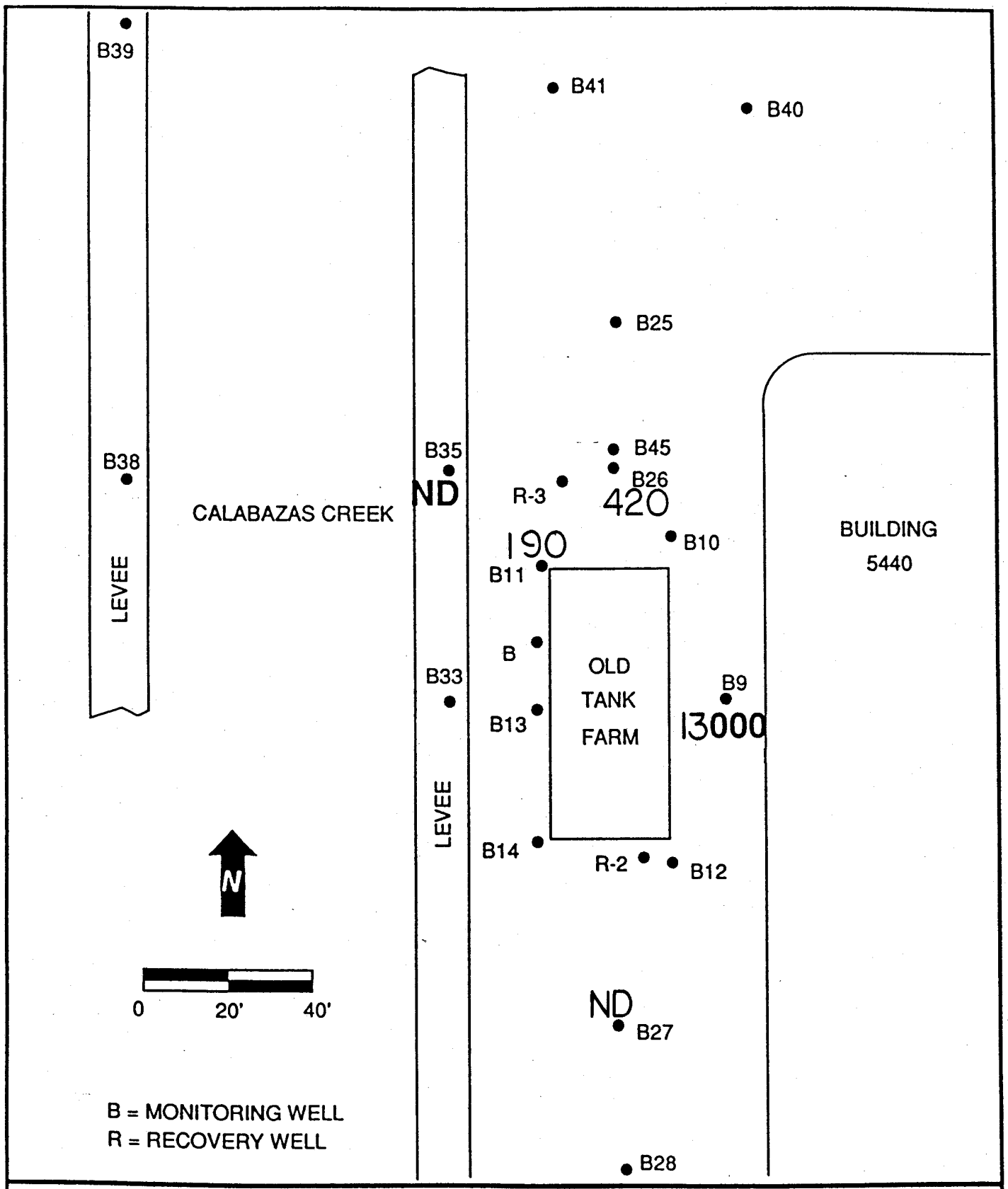
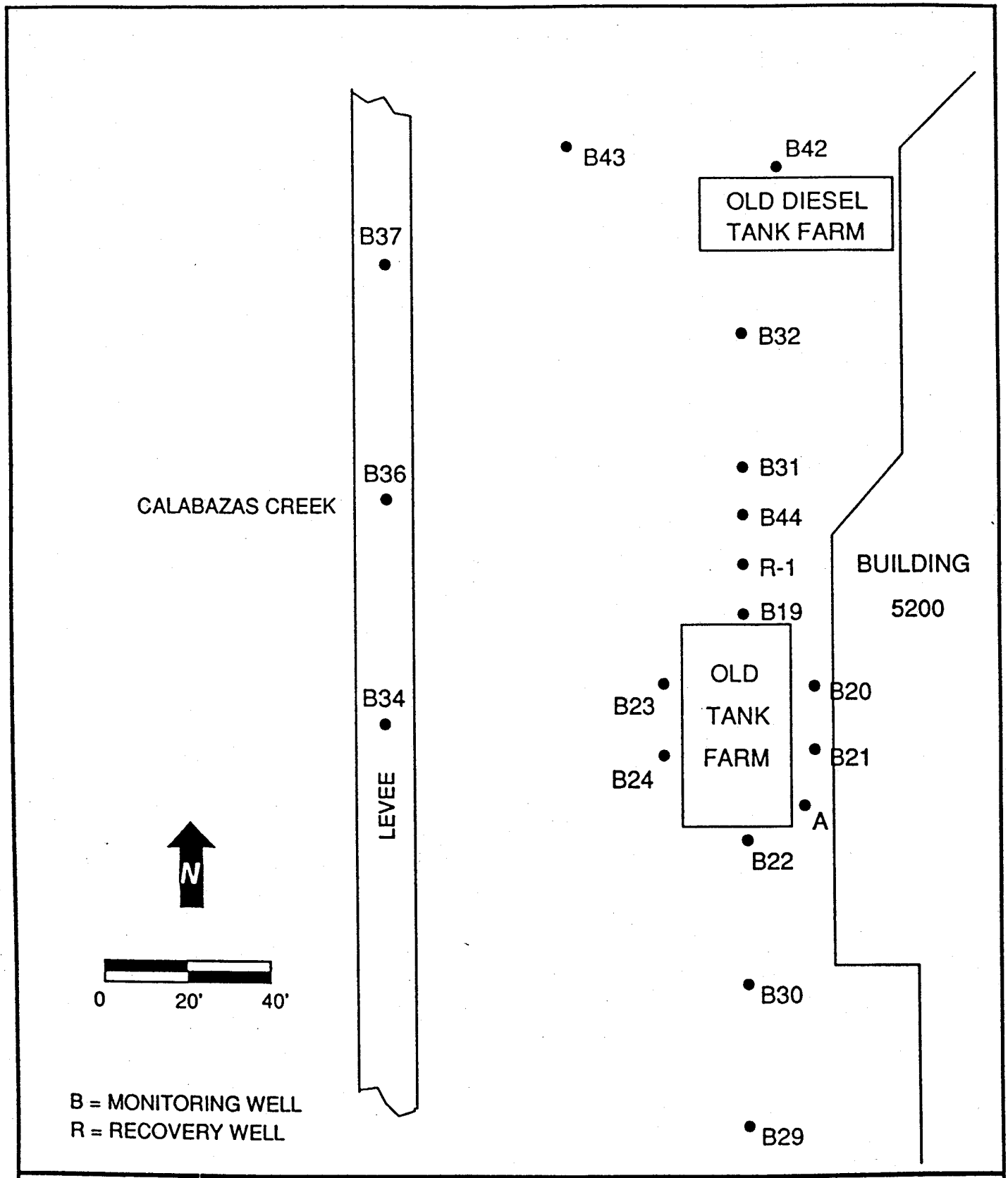
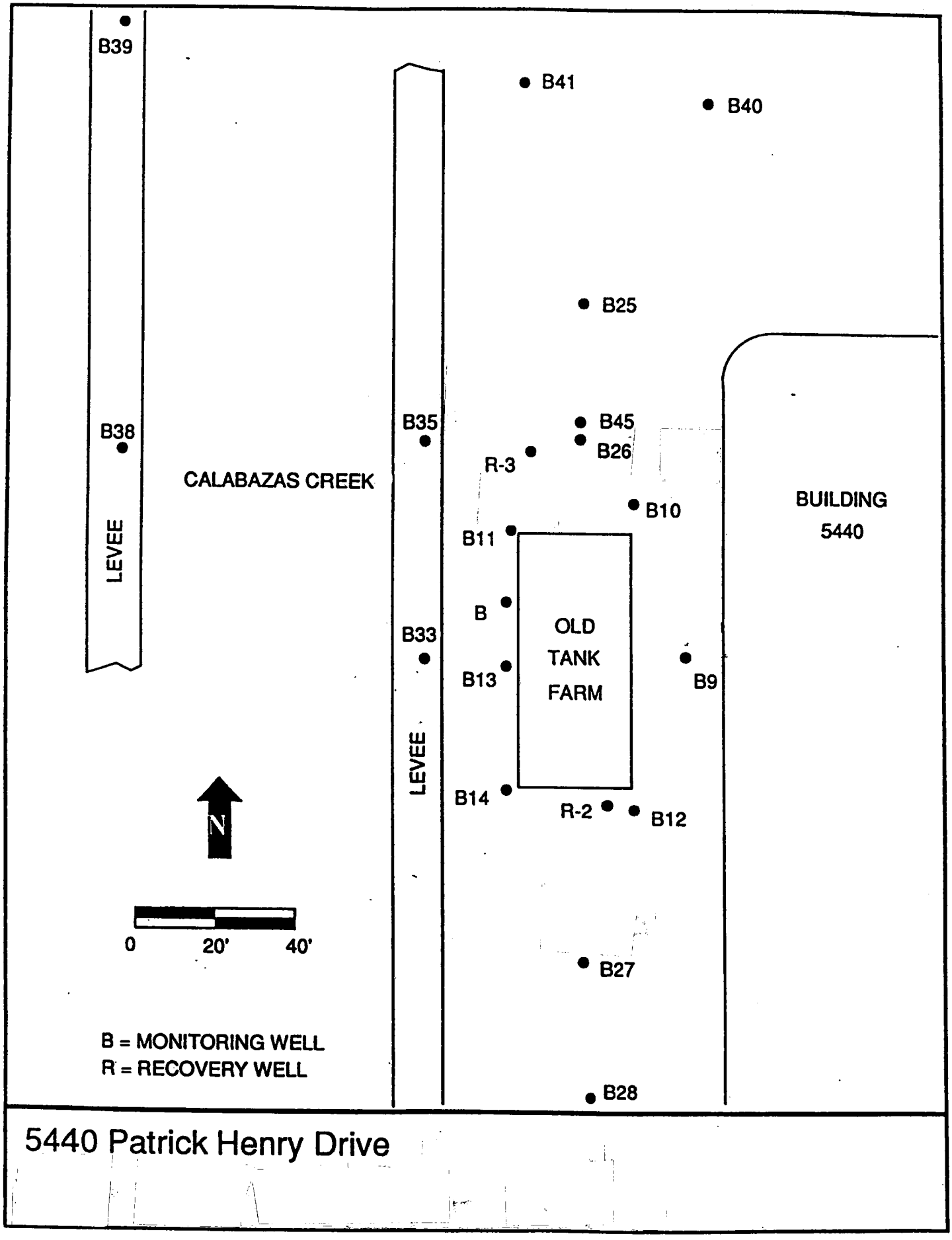

B39
B41
B40
B25
B38
B35
B45
B26
ND
R-3
420
CALABAZAS CREEK
190
B10
BUILDING
5440
B11
LEVEE
B
OLD
TANK
FARM
B33
B9
B13
13000
LEVEE
B14
R-2
B12
N
0
20'
40'
ND
B27
B = MONITORING WELL
R = RECOVERY WELL
B28
5440 Patrick Henry Drive
Well Locations
2-Butanone (MEK) Concentrations
(ug/l)
Date: 2-90

FIGURE 3.2

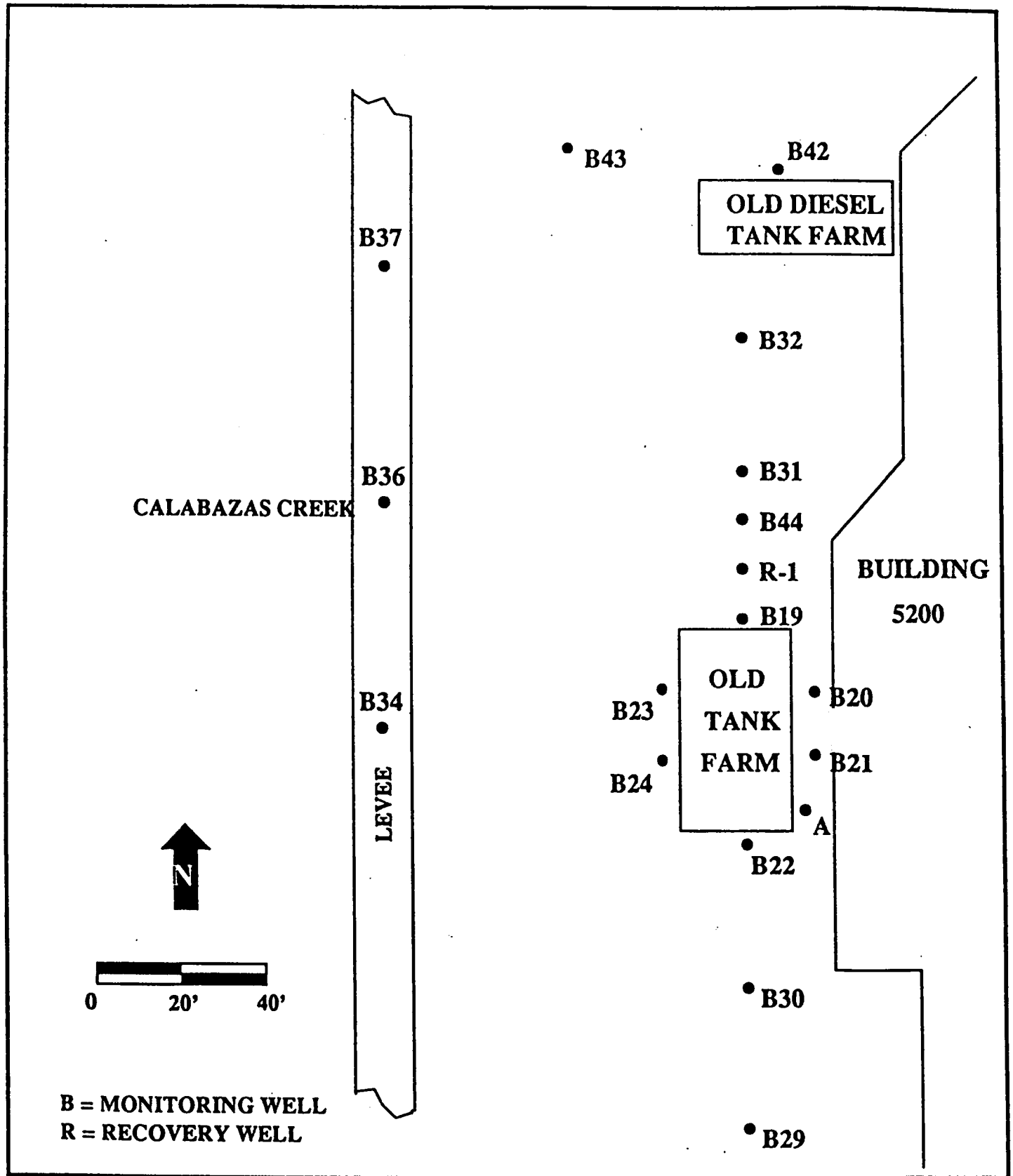


5200 Patrick Henry Drive
Well Locations

FIGURE 3.3


B39
B41
B40
B25
B38
B35
B45
B26
R-3
CALABAZAS CREEK
B10
BUILDING
5440
B11
LEVEE
B
OLD
TANK
FARM
B33
B13
B9
LEVEE
B14
R-2
B12
N
0
20'
40'
B27
B = MONITORING WELL
R = RECOVERY WELL
B28
5440 Patrick Henry Drive

FIGURE



5200 Patrick Henry Drive

FIGURE

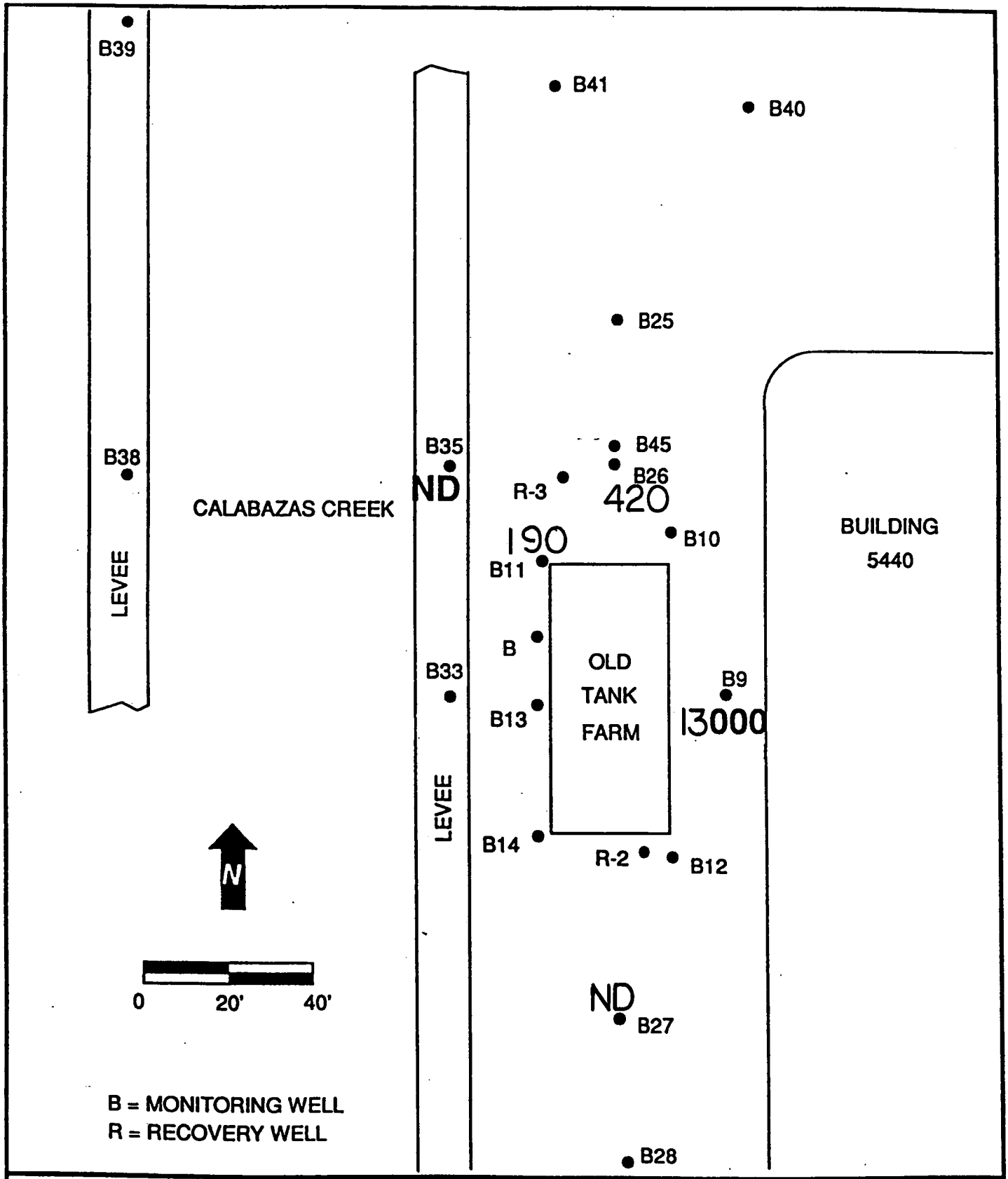
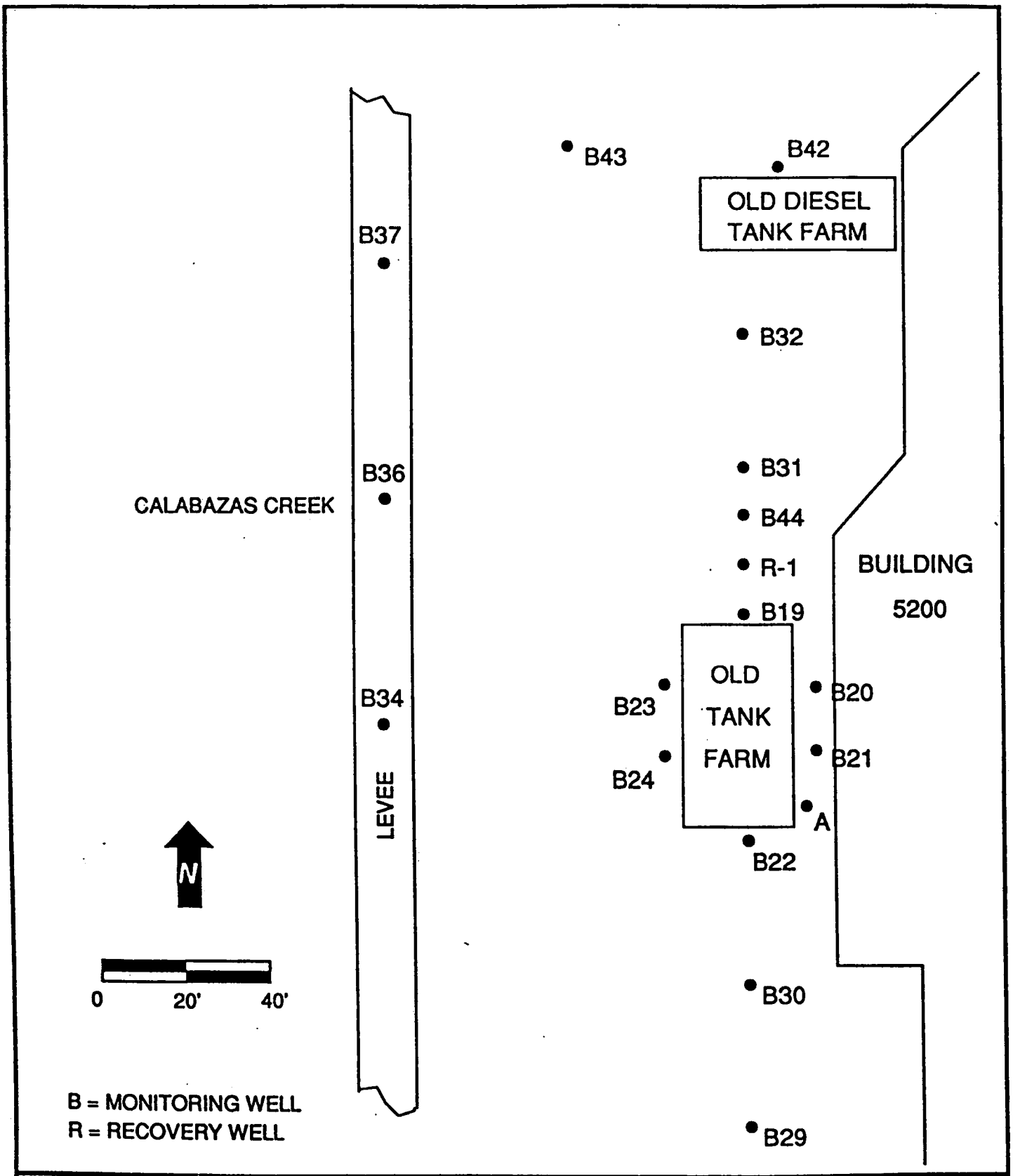

B39
B41
B40
B25
B38
B35
B45
B26
ND
R-3
420
CALABAZAS CREEK
190
B10
BUILDING
5440
B11
LEVEE
B
OLD
TANK
FARM
B33
B9
B13
13000
LEVEE
B14
R-2
B12
N
0
20'
40'
ND
B27
B = MONITORING WELL
R = RECOVERY WELL
B28
5440 Patrick Henry Drive
Well Locations
2-Butanone (MEK) Concentrations
(ug/l)
Date: 2-90

FIGURE 3.2



5200 Patrick Henry Drive
Well Locations

FIGURE 3.3

ICF KAISER ENGINEERS

ICF Kaiser Engineers, Inc.
11808 Northup Way, Suite 104
Bellevue, Washington 98005
206/889-1000 Fax 206/889-1010

January 14, 1993

Mr. Steve Hill
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

CALIF. REG. WATER
JAN 15 1993
QLTY. CONTROL BOARD

Dear Mr. Hill:

Attached is the Monitoring Report for the 4th Quarter of 1992 for the facilities located at 5200 and 5440 Patrick Henry Drive, Santa Clara, California. ICF Kaiser Engineers, Inc. is submitting this report on behalf of Anacomp, Inc.

Manufacturing activities at 5440 Patrick Henry Drive ended on February 15, 1991. Since the groundwater discharge was tied to the manufacturing activities described in the attached report, Anacomp had to stop the extraction and treatment program when manufacturing ceased. The 4th quarter analytical results continue to indicate that methyl ethyl ketone (MEK) and acetone are well below the Final Remediation Action Plan (FRAP) cleanup goals at the 5440 facility. In fact, in this quarter neither compound was detected in any samples. The 4th quarter results also indicate that Freon 113, the only contaminant detected at the 5200 facility, remains well below the Maximum Contaminant Level for primary drinking water.

Anacomp discontinued analysis of diethylene glycol dimethyl ether (DGDE) in the 4th quarter because it was not detected during the previous two quarters. Anacomp voluntarily expanded the analyses in the 2nd quarter to include extractable petroleum hydrocarbons in the diesel range. Extractable petroleum hydrocarbons in the diesel range were detected in the 6 samples analyzed and the field blank. The concentrations, which range from 110 to 830 ug/L are below the 1,000 µg/L cleanup standard required in the FRAP. Anacomp discontinued extractable petroleum hydrocarbon analysis in the 5200 facility monitoring wells because there were no detections over the past two quarters.

Carbon disulfide was detected in one well this quarter at a concentration of 8 ug/L. Last quarter, this chemical was detected in the same well at 17 µg/L. Anacomp does not consider the detection to be significant because it is sporadic and at concentrations below the health-based limit of 30 ug/L.

2189-8118

If you have any questions regarding this report, please call Chris van der Woerd at (510) 889-0324.

Sincerely,

James F. Shellooe

James F. Shellooe, P.E.
Project Manager

JFS/KVBJ:csr

Attachment

cc: Lee Esquibel, Santa Clara County Health Department
Pamela Foley, W.F. Batton & Co., Inc.
Greg Greggeary, Coherent
Howard Hatayama, California Department of Health Services
Tom Iwamura, Santa Clara Valley Water District
David Parker, City of Santa Clara
Chris van der Woerd, Anacomp, Inc.
Eric Whinston, Anacomp, Inc.

Anacomp, Inc.

(Formerly Xidex Corporation)

Monitoring Report
4th Quarter 1992

5200 Patrick Henry Drive
5440 Patrick Henry Drive
Santa Clara, California

Prepared under the direction of:

James F. Shellooe

James F. Shellooe, P.E.
Registered Civil Engineer
State of California No. 32424
Expires 12/31/96

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 GROUNDWATER TREATMENT 1

3.0 GROUNDWATER SAMPLING AND ANALYSIS 1
- 3.1 Quality Assurance - Laboratory 2
- 3.2 Quality Assurance - Field 2
- 3.3 Analytical Results - 5440 Patrick Henry Drive 3
- 3.4 Analytical Results - 5200 Patrick Henry Drive 4
- 3.5 Groundwater Elevations 4

LIST OF TABLES

1 Final Remedial Action Plan Contaminant Cleanup Goals
2 4th Quarter 1992 Chemical Analysis Summary
3 Historical MEK Concentrations - 5440 Patrick Henry Drive
4 Historical Acetone and Isopropanol Concentrations - 5440 Patrick Henry Drive
5 Groundwater Elevation Data - December 22, 1992

LIST OF FIGURES

1 Well Locations and MEK Concentrations - 5440 Patrick Henry Drive
2 Well Locations and Acetone Concentrations - 5440 Patrick Henry Drive
3 Well Locations and Diesel Concentrations - 5440 Patrick Henry Drive
4 Groundwater Elevations - 5440 Patrick Henry Drive
5 Well Locations and Groundwater Elevations - 5200 Patrick Henry Drive

APPENDICES

A Groundwater Sampling Report
B Groundwater Analytical Results

QUARTERLY REPORT FOR SAMPLING ACTIVITIES FOR ANACOMP, INC. FACILITIES LOCATED AT 5200 AND 5440 PATRICK HENRY DRIVE SANTA CLARA, CALIFORNIA

4TH QUARTER 1992

1.0 INTRODUCTION

This report is submitted to meet the quarterly reporting requirement pursuant to the California Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, Board Order No. 85 - 131.

This report covers monitoring activities conducted from October 1, 1992 through December 31, 1992 for the Anacomp sites located at 5200 and 5440 Patrick Henry Drive, Santa Clara, California. This monitoring program conforms to the sampling and analysis plan in the Final Remediation Action Plan for the 5200 and 5440 Patrick Henry Drive Facilities (ICF Kaiser Engineers, September 1989). The groundwater sampling report is included under Appendix A, and the analytical results are included under Appendix B.

2.0 GROUNDWATER TREATMENT

As previously reported, Anacomp shut down manufacturing activities at 5440 Patrick Henry Drive on February 15, 1991. Groundwater is not currently being extracted at 5200 or 5440 Patrick Henry Drive because the cessation of manufacturing activities leaves Anacomp unable to extract, treat and dispose of groundwater as was previously done at the site. Under a variance approved by the San Jose/Santa Clara Water Pollution Control Plant, extracted groundwater had been used in an air scrubber (replacing city water) that was tied to manufacturing and then discharged to the sanitary sewer system. Currently, Anacomp has no permits for discharge of extracted groundwater. Further, results of groundwater monitoring have indicated that extraction and treatment of site groundwater is not necessary.

3.0 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater samples were collected from monitoring wells located at 5200 and 5440 Patrick Henry Drive on December 23, 1992. Personnel from Blaine Tech Services of San Jose, California conducted the groundwater sampling. Samples were collected from wells B-19, B-21, B-29, B-42, and B-43 at the 5200 Patrick Henry Drive location and from wells B-9, B-11, B-26, B-27, B-35 and B-45 at the 5440 Patrick Henry Drive location. Appendix

A contains a sampling activities report by Blaine Tech Services consisting of summaries of field notes, purge volumes, sampling protocols, field and laboratory testing parameters, and chain of custody documents.

All samples were analyzed by Curtis and Tompkins, Ltd. of Berkeley, California. The samples were analyzed by EPA SW-846 Volatile Organics Method 8240 with additional analytes cyclohexanone and isopropyl alcohol. The results of these analyses are summarized in Table 2. Anacomp also voluntarily expanded the analysis to include extractable petroleum hydrocarbons of the 5440 Patrick Henry Drive location only. Previously, extractable petroleum hydrocarbons were analyzed at both locations. However, past sampling events have not indicated any detectable concentration of hydrocarbons at the 5200 Patrick Henry Drive location, so the analysis was excluded this quarter and will be excluded in future sampling events.

Diethylene glycol dimethyl ether (DGDE), which was also voluntarily analyzed in the past, was not analyzed for during this quarter. This is due to previous analytical results which show the analyte to be below detection limits in previous quarters. Appendix B contains the complete analytical results from Curtis & Tompkins, Ltd. showing all analytes and their respective reporting limits.

3.1 Quality Assurance - Laboratory

All surrogate recoveries for all analyses were within their respective EPA Method 8240 acceptance ranges specified in EPA SW-846, November 1986.

Samples were analyzed within the EPA Method 8240 holding times specified in SW-846, and within the California DOHS Method holding times for extractable petroleum hydrocarbons.

Matrix spike and matrix spike duplicate sample results were within the EPA Method 8240 performance limits (percent recoveries and relative percent difference). Three laboratory method blank samples were analyzed. No analytes were detected in any of them.

3.2 Quality Assurance - Field

Field sampling activities, including well purging, sampling, and chain of custody documentation, were conducted in accordance with the standard practices presented in the Groundwater Sampling Report (Appendix A). In addition, field quality assurance generally conformed to the relevant procedures contained in the

RWQCB Leaking Underground Fuel Tank Manual. Quality assurance samples collected during field activities included an equipment rinsate blank, a transport blank, and a split-sample.

An equipment rinsate and transport blank were collected during sampling activities and were designated as samples field blank and transport blank, respectively. No analytes were detected in either of the samples.

A split-sample was taken of sample B-35 at 5440 Patrick Henry Drive for analysis by Curtis and Tompkins, and Sequoia Analytical Laboratories. The split analyzed by Curtis and Tompkins showed no analytes. The sample did not show any analytes above detection limits.

3.3 Analytical Results - 5440 Patrick Henry Drive

Monitoring Wells B-9, B-11, B-26, B-27, B-35, and B-45 were analyzed for volatile organics by EPA Method 8240 and extractable petroleum hydrocarbons by the DOHS Method. The analyte MEK was not detected in any of the water samples. The diesel fraction of extractable petroleum hydrocarbons was detected at low concentrations (0.11 to 0.86 mg/L) in monitoring wells B-9, B-11, B-26, B-27, B-35, and B-45.

No other analytes, including cyclohexanone and isopropyl alcohol were detected in the samples from the 5440 Patrick Henry Drive monitoring wells.

The 5440 Patrick Henry Drive monitoring well locations and the MEK concentrations detected in samples collected from these wells are shown on Figures 1 and 2. Figure 2 shows the concentrations of acetone detected in samples at the 5440 Patrick Henry Drive location. Figure 3 shows the concentrations of diesel detected in samples taken at the 5440 Patrick Henry Drive location.

Table 2 is a summary of the analytical results for all wells sampled during this quarterly monitoring event. Historical MEK concentrations detected in site monitoring wells are presented in Table 3. Table 4 is a summary of the historical acetone and isopropyl alcohol concentrations detected in previous monitoring samples.

The results of the 4th Quarter Monitoring indicate that groundwater quality at the 5440 Patrick Henry Drive location is well below the FRAP proposed health-based

cleanup standards of 1,800 µg/L for MEK, 3,500 µg/L for acetone, and at or below the FRAP proposed health-based standard of 1,000 µg/L for diesel (based on the State of California MCL for benzene of 1 µg/L, and the assumption that diesel contains 0.1 percent benzene) (see Table 1).

3.4 Analytical Results - 5200 Patrick Henry Drive

Monitoring Wells B-19, B-21, B-29, B-42, and B-43 were sampled on December 23, 1992 and analyzed for volatile organics by EPA Method 8240 are extractable petroleum hydrocarbons by the DOHS Method. Well B-24 was not sampled because damage to the well head prevented the insertion of a bailer. The analyte Freon 113 (1,1,2-trichloro-1,2,2-trifluoroethane) was not detected in any samples from the monitoring wells. The concentrations were 5 µg/L in well B-29 and 12 µg/L in well B-43. This compound has been sporadically detected over the last three years in groundwater samples from the 5200 Patrick Henry Drive site at relatively low concentrations. No other analytes were detected in samples collected from the 5200 Patrick Henry Drive monitoring wells.

Table 2 presents a summary of the analytical results for all wells sampled during this quarterly monitoring event. The locations of monitoring wells at 5200 Patrick Henry Drive are presented in Figure 5.

The results of the 4th Quarter Monitoring indicate that groundwater quality at the 5200 Patrick Henry Drive location is well below the FRAP proposed health-based cleanup standards listed in Table 1.

3.5 Groundwater Elevations

Depth to water and groundwater elevation data collected during this quarterly monitoring event are presented in Table 5. Figures 4 and 5 present the associated groundwater elevations on December 22, 1992 for the 5440 and 5200 Patrick Henry Drive locations.

TABLES

Table 1. Final Remedial Action Plan Contaminant Cleanup Goals
for 5200 and 5440 Patrick Henry Drive (September 1989)

CONTAMINANT	CLEANUP GOAL (ppm)
MEK	1.8
Acetone	3.5
Cyclohexanone	1.5
Diglyme	4,900
Diesel	1.0

NOTES

MEK - methylethyl ketone, or 2-butanone

Table 2. 4th Quarter 1992 Chemical Analysis Summary (ppb)

5200 Patrick Henry Drive						
WELL	MEK	ACETONE	CYCLOHEX –ANONE	ISOPROPYL ALCOHOL	FREON 113	TPH DIESEL
B–19	<10	<20	<100	<100	<5	NA
B–21	<10	<20	<100	<100	<5	NA
B–29	<10	<20	<100	<100	<5	NA
B–42	<10	<20	<100	<100	<5	NA
B–43	<10	<20	<100	<100	<5	NA

5440 Patrick Henry Drive						
WELL	MEK	ACETONE	CYCLOHEX –ANONE	ISOPROPYL ALCOHOL	FREON 113	TPH DIESEL
B–9	<10	<20	<100	<100	<5	830
B–11	<10	<20	<100	<100	<5	860
B–26	<10	<20	<100	<100	<5	650
B–27	<10	<20	<100	<100	<5	110
B–35	<10	<20	<100	<100	<5	370
B–45	<10	<20	<100	<100	<5	350
F.Blank	<10	<20	<100	<100	<5	70
B–63	<10	<20	<100	<100	<5	NA

NOTES

Values in green fall below the levels in the Final Remedial Action Plan, or regulatory limits.
Values in red are above the levels in the Final Remedial Action Plan, or regulatory limits.

MEK – methylethyl ketone, or 2–butanone
NA – not analyzed
TPH Diesel – Kerosene range was not detected, and the samples were quantitated as diesel.

These summary tables include all of the wells sampled during the current quarter. The analytes are the chemicals for which clean–up levels were developed in the Final Remedial Action Plan (except diglyme), and Freon 113 (MCL 1,200 ppb).

Table 3. Groundwater Monitoring Data
Concentration Methyl Ethyl Ketone (MEK)
5440 Patrick Henry Drive
(ppm)

SAMPLING DATE	WELLS TESTED														
	B-9	B-10	B-11	B-12	B-13	B-14	B-25	B-26	B-27	B-33	B-35	B-41	B-45	R-2	R-3
AUG 82	13500	12500	18500	49000	17200	7000	<1	700	<1	<1	<1				
AUG 83			11000	800		64		7000		10000				770	
APR 84	<1		5000	2	9	14	<1	4000	<1	4000					
AUG 84	28	<1	6000	<1	9		<1	3100	<1	1700	32				
DEC 84			2900				ND	1900		590	480	ND			
FEB 85			1200									<1	1300		
JUL 85			3700				0.6	1500		200	3600				
OCT 85			2700					2400							100
JUN 86	<0.1		235	<0.1			<0.1	685		13.5					
JUL 86	3.9		250	3			<0.1	1100		12					
AUG 86	<0.1		445	0.1			1	136		11.3					
NOV 86			321				<0.1	1492		1.3	1712	44	1500		76
DEC 86			290				<0.1	480		<0.1	1500				
DEC 86			123				<0.1	660		<0.1	890				
JAN 87			200				ND	420		ND	930				
FEB 87			150				ND	960		ND	650	ND	1500	25	70
MAR 87			170				ND	460		ND	530				
APR 87			130				<1	340		<1	220			13.4	44
MAY 87			150				ND	1100			130	ND		22	59
JUN 87			110				ND	360		ND	130		860	<0.5	
JUL 87			46				ND	590		ND	52				24
AUG 87			4.4				ND	220		ND	ND				22.7
SEP 87			10				ND	280		ND	12			6.6	
OCT 87			87				<1.0	300		<1.0	30	<1.0	890		
NOV 87			68				<1.0	390		<1.0	18				
DEC 87			52				<0.5	463		<0.5	3.2				
JAN 88			40				ND	190			ND				
FEB 88			56				<4	300		<4	<4				
MAR 88			35					330			ND				
APR 88			45				ND	370		ND	ND		1000		
MAY 88			26					190		ND	ND	ND			
JUN 88			21				ND	240		ND	ND				
JUL 88			15				ND	280		ND	ND				
AUG 88			7				ND	81		ND	ND				
SEP 88			20				ND	42		ND	ND				
OCT 88			4				ND	10		ND	ND				
NOV 88			1.5				ND	0.73		ND	0.005				
DEC 88															

(continued on next page)

Table 3. Groundwater Monitoring Data
Concentration Methyl Ethyl Ketone (MEK)
5440 Patrick Henry Drive
(ppm)

SAMPLING DATE	WELLS TESTED														
	B-9	B-10	B-11	B-12	B-13	B-14	B-25	B-26	B-27	B-33	B-35	B-41	B-45	R-2	R-3
JAN 89	91	<.020	45				<.020	1.1	<.020	<.020	<.020	<.020	3.2		
FEB 89	120		<.020				<.020	0.13		<.020	<.020		0.23		
MAR 89	0.149		2				<.020	2.4		<.020	<.020	ND	0.92	0.58	0.28
APR 89	82		4.9				<.020	1.1		<.020	<.020		2.7		
MAY 89	132		2.2				<.020	2.4		<.020	<.020				
JUN 89	70		5.2				<.020	1.1		<.020	<.020		1.2		
JUL 89	64		<1					0.55		<.020	<.020	<.020	0.14		
AUG 89	80		0.675				<.020	3.5		<.020	<.020				
AUG 89								0.42	DUPLICATE						
SEP 89	21		0.22				<.020	0.52		<.020	<.020				
SEP 89	44	DUPLICATE													
OCT 89	31		0.62				<.020	0.1		<.020	<.020	<.020	0.14		
FEB 90	13		0.19					0.42	<.010		<.010				
MAY 90	8.4		<.400					0.68	<.020		<.020				
JUL 90	6.6		<4.00					5.5	<.020		<.020		1.3		
JUL 90	9.8	DUPLICATE													
OCT 90	20		2.9					1.8	0.55		<.020		0.047	<.020	<.020
OCT 90	24	DUPLICATE	<10					1.4	<.020						
DEC 90	52		<.020					<.020	<.020		<.020				
DEC 90								<.020	DUPLICATE						
MAR 91	4.2	<.010	<.010					<.010	<.010		<.010		<.010		
MAR 91								<.010	DUPLICATE						
JUN 91	1.2		<.010					3.3	<.010		<.010		<.010		
JUN 91	1.2	DUPLICATE													
SEP 91	0.18		<.010					0.023	<.010		<.010		<.010		
SEP 91	0.4	DUPLICATE													
DEC 91	<.010		<.010					<.010	<.010		<.010		<.010		
DEC 91	<.010	DUPLICATE						<.010	EQ BLANK						
MAR 92	<.010		<.010					0.3	<.010		<.010		<.010		
MAR 92	<.010	DUPLICATE	<.010												
JUN 92	<.010		<.010					<.010	<.010		<.010		<.010		
OCT 92	<.010		<.010					<.010	<.010		<.010		<.010		
DEC 92	<.010		<.010					<.010	<.010		<.010		<.010		
DEC 92	<.010	DUPLICATE									<.010				

Table 4. Groundwater Monitoring Data
Concentrations of Acetone and Isopropanol
5440 Patrick Henry

WELLS TESTED

SAMPLING DATE	ACETONE (ppm)												ISOPROPANOL (ppm)											
	B-9	B-10	B-11	B-25	B-26	B-27	B-33	B-35	B-41	B-45	R-2	R-3	B-9	B-10	B-11	B-25	B-26	B-27	B-33	B-35	B-41	B-45	R-2	R-3
AUG 82												2.8	120	100	160									
FEB 85															40						<1			
JUN 86													<0.4		5.7	<0.4	206		3.5					
AUG 86													<0.4		21.6	<0.4	362		3.7					
NOV 86			43	<0.4	34		10.6	228	<0.4	125					13	<0.4	34		<0.4	26	<0.4	68		2.8
DEC 86			37	<0.4	88		<0.4	24							25	<0.4	41		<0.4	150				
APR 87			43	<1	34		<1	39			0.8	<0.5			12	<1	34		<1	6.7			<0.5	<0.5
MAY 87											0.7	<0.5											<0.5	<0.5
JUL 87											<0.5	<0.5											<0.5	<0.5
SEP 87											<0.1	<0.1											<0.1	<0.1
OCT 87			21	<1.0	19		<1.0	7.6	<1.0	68					5	<1.0	19		<1.0	<1.0	<1.0	24		
NOV 87			17	<1.0	14		<1.0	3.7							4.7	<1.0	14		<1.0	<1.0				
DEC 87			10.5	<0.5	15.9		<0.5	<0.5							3	<0.5	15.9		<0.5	<0.5				
FEB 88			17	<2	8.1		<2	<2							2.3	<2	8.1		<2	<2				
JAN 89	2	<.020	7.1	<.020	0.34		<.020	<.020	<.020	0.82			35	<.100	15	<.100	0.34		<.100	<.100	<.100	0.53		
FEB 89	27		<.020	<.020	<.100		<.020	<.020		<.020			13		2.1	<.100	<.100		<.100	<.100		<.100		
MAR 89	0.034		9.3	<.020	<.100		<.020	<.020		0.15			<.100		<.100	<.100	<.100		<.100	<.100		<.100		
APR 89	26		13	<.020	<.220		0.071		<.020	0.28			11		<2.0	<.100	<.100		<.100		<.100	<.100		
MAY 89	32		9.5	<.020	<.660		<.020	<.020					<1.00		<.100	<.100	<.100		<.100	<.100				
JUN 89	9.8		4.7	<.020	<2		<.020	<.020		0.101			<25		<1	<.100	<2		<.100	<.100		<.500		
JUL 89	13		2.8	<.020	<.100		<.020	<.020	<.020	0.034			<2		<5	<.100	<1.00		<.100	<.100		<.100		
AUG 89	16		2.3	<.020	<.400		<.020	<.020					<.100		1.3	<.100	<.100		<.100	<.100				
AUG 89					0.63		DUP										<.100		DUP					
SEP 89	3.3		0.5	<.020	0.64		<.020	<.020																
SEP 89	8.9	DUP																						
OCT 89	7		0.69	<.020	0.027		<.020	<.020	<.020	<.021			<2		<.25	<.10	<.10		<.10	<.10	<.10	<.10		
FEB 90	3.6		3.2		0.14	<.010		<.010																
MAY 90	<2.0		4		0.1	<.020		<.020					<1.00		<1.00	<1.00	<1.00	<1.00						
JUL 90	1.3		6		0.85	<.020		<.020		<.200			<.150		<20.00		<.150	<.100		<.10		<1.00		
JUL 90	1.5	DUP											<.150	DUP										
OCT 90	3.7		10		0.23	<.020		0.036		<.020	0.021	<.020												
OCT 90	9.4	DUP	20		<.020	<.020																		
DEC 90	8.3		0.12		<.020	<.020		<.020																
MAR 91	3.2	<.010	<.010		<.010	<.010		<.010		<.010			1.4	<1.00	<1.00		<1.00	<1.00		<1.00		<1.00		
MAR 91					<.010	DUP											<1.00	DUP						
JUN 91	0.41		<.010		13	<.010		<.010		<.010			<.100		<.100		<10	<.100		<.100		<.100		
JUN 91	0.35	DUP											<.100	DUP										
SEP 91	<.010		<.010		<.010	<.010		<.010		<.010			<.100		<.100		<.100	<.100		<.100		<.100		
SEP 91	0.037	DUP											<.100	DUP										
DEC 91	0.014		<0.010		0.010	0.010		0.010		0.010			<.100		<.100		<.100			<.100		<.100		
DEC 91	0.02	DUP											<.100	DUP										

(continued on next page)

Table 4. Groundwater Monitoring Data
Concentrations of Acetone and Isopropanol
5440 Patrick Henry

WELLS TESTED

SAMPLING DATE	ACETONE (ppm)												ISOPROPANOL (ppm)											
	B-9	B-10	B-11	B-25	B-26	B-27	B-33	B-35	B-41	B-45	R-2	R-3	B-9	B-10	B-11	B-25	B-26	B-27	B-33	B-35	B-41	B-45	R-2	R-3
MAR 92	<0.02		<0.02		<0.02	<0.02		<0.02		<0.02			<.100		<.100		<.100	<.100		<.100		<.100		
MAR 92	<0.02	DUP											<.100	DUP										
JUN 92	<0.02		<0.02		<0.02	<0.02		<0.02		<0.02			<.100		<.100		<.100	<.100		<.100		<.100		
OCT 92	<0.02		<0.02		<0.02	<0.02		<0.02		<0.02			<.100		<.100		<.100	<.100		<.100		<.100		
DEC 92	<0.02		<0.02		<0.02	<0.02		<0.02		<0.02			<.100		<.100		<.100	<.100		<.100		<.100		
DEC 92	<0.02	DUP						<0.02												<.100				

Table 5. Groundwater Elevation Data
Water Levels - December 22, 1992

WELL	SITE	WELL DEPTH (feet)	CASING ELEVATION (feet)	DEPTH TO WATER (feet)	WATER ELEVATION (MSL) (feet)
5200 PHD					
19	5200	18.30	7.87	7.29	0.58
20	5200	18.94	8.07	7.50	0.57
21	5200	16.46	7.71	7.25	0.46
22	5200	18.40	7.85	7.12	0.73
23	5200	17.30	7.74	6.90	0.84
24	5200	18.28	7.53	6.70	0.83
29	5200	19.78	7.50	6.86	0.64
30	5200	19.90	7.63	6.76	0.87
31	5200	20.08	6.98	6.50	0.48
32	5200	19.78	6.85	6.42	0.43
34	5200	26.90	15.72	15.21	0.51
36	5200	29.00	15.43	15.29	0.14
37	5200	28.78	15.34	15.05	0.29
42	5200	19.40	7.48	7.09	0.39
43	5200	20.08	7.62	7.08	0.54
44	5200	29.2	*	6.94	**
A	5200	28.20	8.37	7.66	0.71
5440 PHD					
9	5440	15.65	5.96	7.23	-1.27
10	5440	17.16	*	7.15	**
11	5440	16.50	6.36	7.49	-1.13
12	5440	23.41	6.18	7.36	-1.18
13	5440	19.82	6.25	7.34	-1.09
14	5440	16.78	6.85	7.93	-1.08
25	5440	19.42	5.41	6.79	-1.38
26	5440	19.48	5.80	7.15	-1.35

Table 5. Groundwater Elevation Data
Water Levels - November 24, 1992 (Continued)

WELL	SITE	WELL DEPTH (feet)	CASING ELEVATION (feet)	DEPTH TO WATER (feet)	WATER ELEVATION (MSL) (feet)
27	5440	17.16	6.56	7.61	-1.05
28	5440	20.74	6.86	7.85	-0.99
33	5440	21.44	15.15	16.43	-1.28
35	5440	27.24	15.00	16.29	-1.29
38	5440	40.15	15.28	16.53	-1.25
39	5440	36.41	15.32	16.74	-1.42
40	5440	19.36	6.44	7.93	-1.49
41	5440	19.60	6.65	8.32	-1.67
45	5440	22.78	*	7.18	**
B	5440	35.30	7.00	7.71	-0.71

* Casing elevation not available
** Water elevation not available

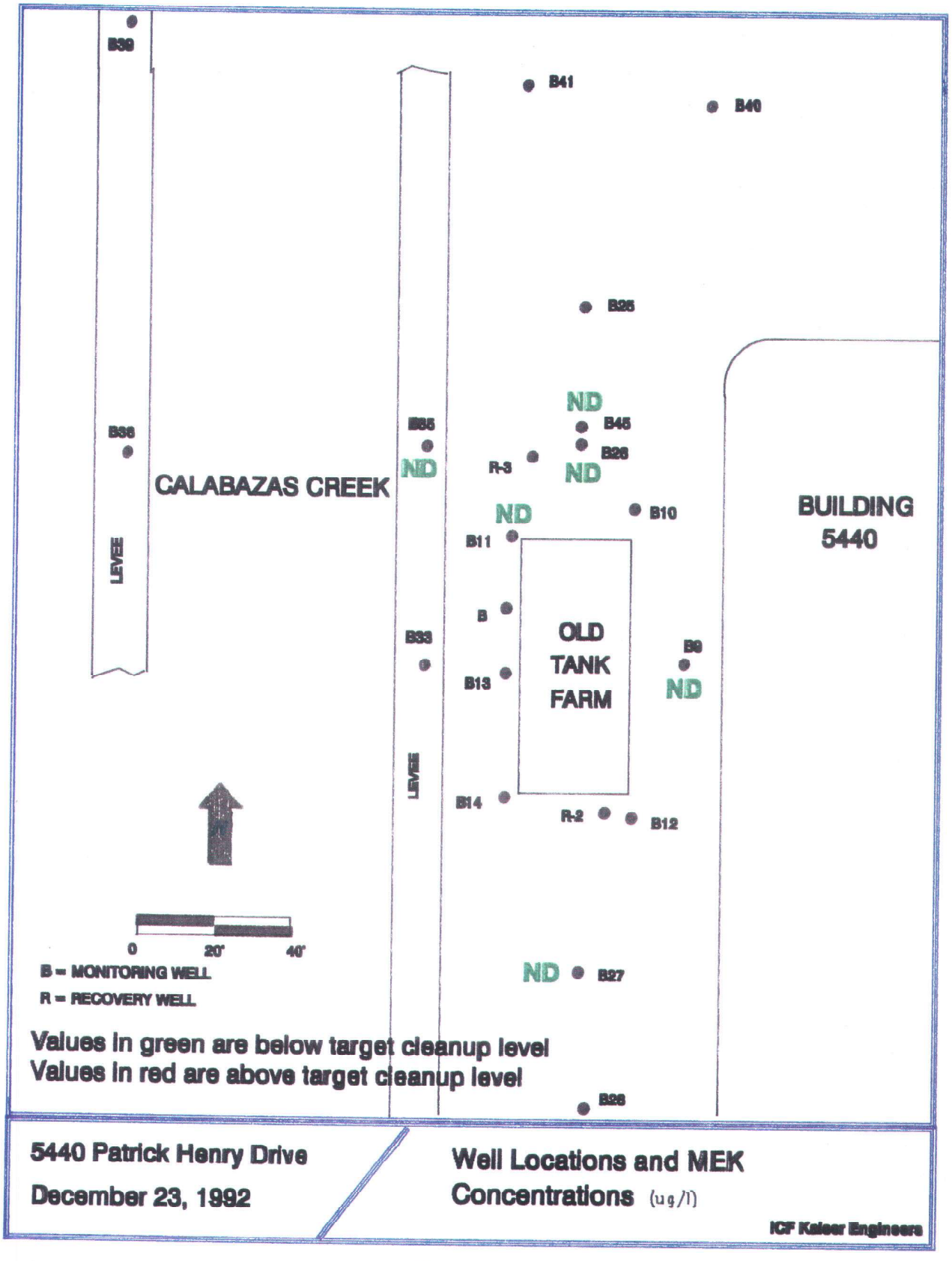

B39
B41
B40
B25
ND
B45
B26
ND
R-3
B36
B35
ND
CALABAZAS CREEK
ND
B10
BUILDING
5440
B11
LEVEE
B
OLD
TANK
FARM
B33
B9
B13
ND
LEVEE
B14
R-2
B12
0
20'
40'
B = MONITORING WELL
R = RECOVERY WELL
ND
B27
Values in green are below target cleanup level
Values in red are above target cleanup level
B28
5440 Patrick Henry Drive
December 23, 1992
Well Locations and MEK
Concentrations (ug/l)
ICF Kaiser Engineers

Figure 1

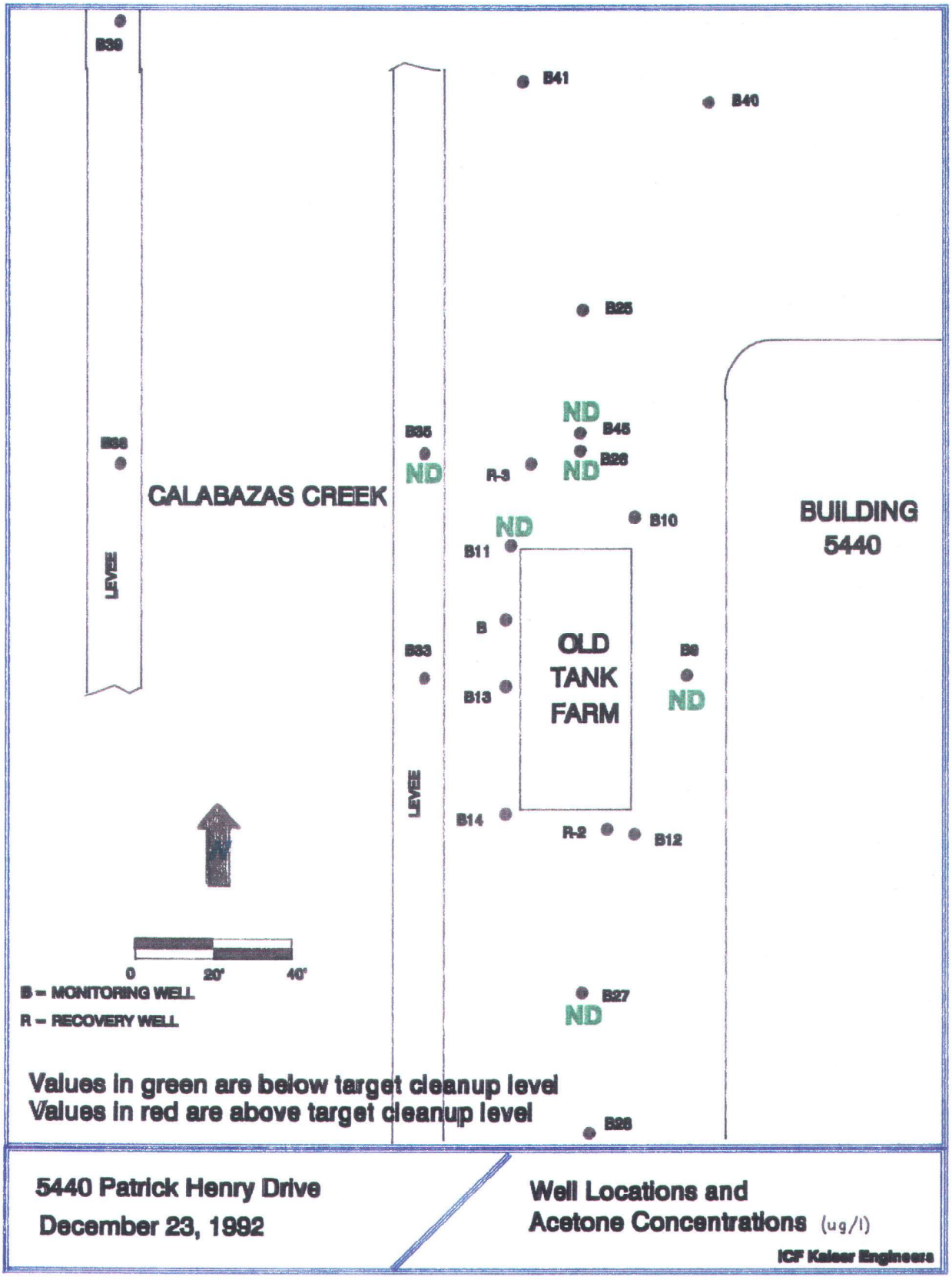

B39
B41
B40
B25
ND
B45
B35
ND
B26
R-3
ND
B38
CALABAZAS CREEK
ND
B10
BUILDING
5440
B11
LEVEE
B
OLD
TANK
FARM
B33
B9
B13
ND
LEVEE
B14
R-2
B12
0
20'
40'
B = MONITORING WELL
R = RECOVERY WELL
B27
ND
Values in green are below target cleanup level
Values in red are above target cleanup level
B28
5440 Patrick Henry Drive
December 23, 1992
Well Locations and
Acetone Concentrations (ug/l)
ICF Kaiser Engineers

Figure 2

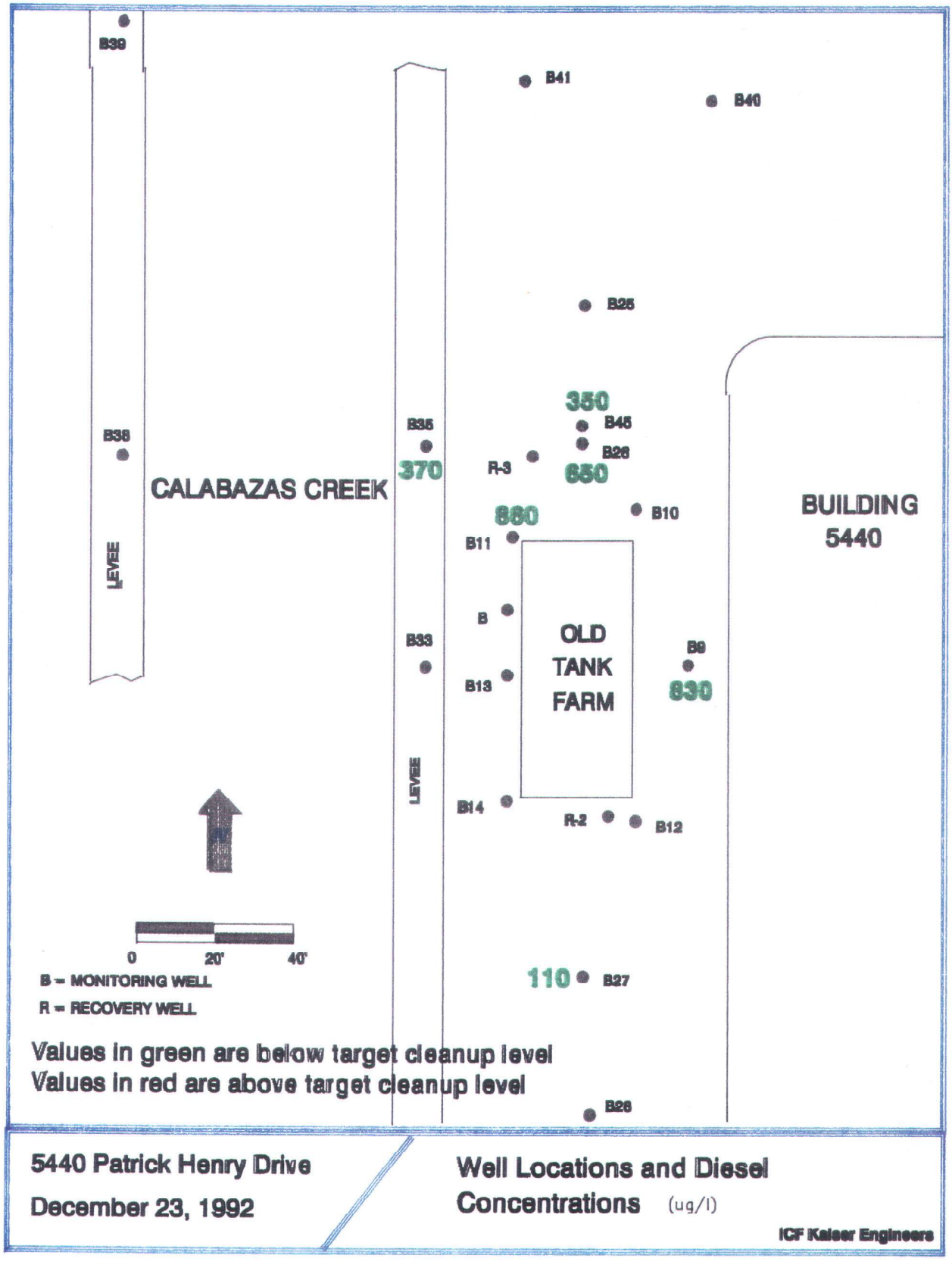

B39
B41
B40
B25
350
B35
B45
B38
B26
370
R-3
650
CALABAZAS CREEK
BUILDING
5440
880
B10
B11
LEVEE
B
OLD
TANK
FARM
B33
B9
B13
830
LEVEE
B14
R-2
B12
0
20'
40'
B = MONITORING WELL
R = RECOVERY WELL
110
B27
Values in green are below target cleanup level
Values in red are above target cleanup level
B28
5440 Patrick Henry Drive
December 23, 1992
Well Locations and Diesel
Concentrations (ug/l)
ICF Kaiser Engineers

Figure 3

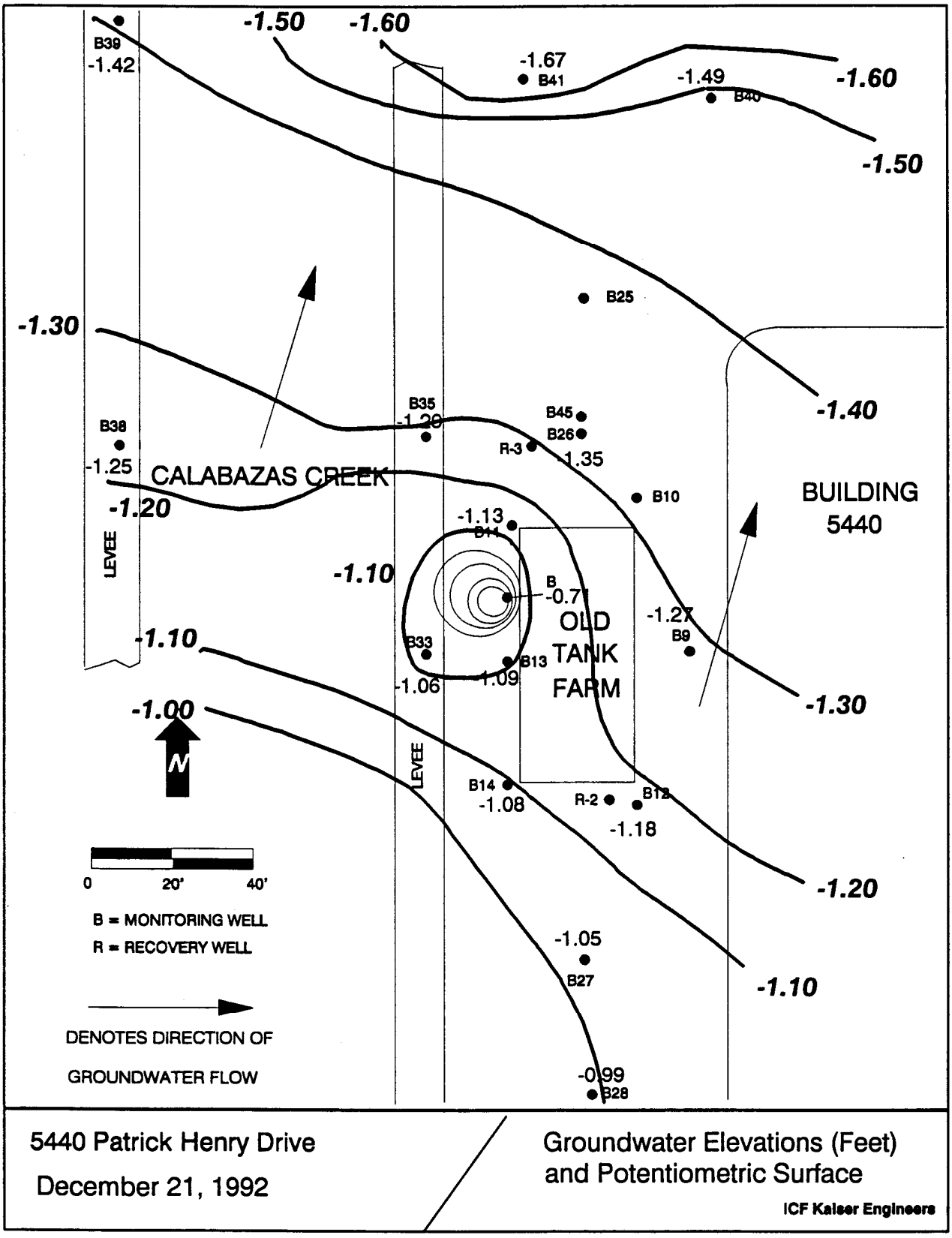

-1.50
-1.60
B39
-1.42
-1.67
B41
-1.49
B40
-1.60
-1.50
B25
-1.30
-1.40
B35
-1.20
B45
B26
R-3
1.35
B38
-1.25
CALABAZAS CREEK
-1.20
B10
BUILDING
5440
-1.13
B11
LEVEE
-1.10
B
-0.71
OLD
TANK
FARM
-1.27
B9
B33
B13
-1.06
-1.09
-1.10
-1.30
-1.00
N
LEVEE
B14
-1.08
R-2
B12
-1.18
-1.20
0
20'
40'
B = MONITORING WELL
R = RECOVERY WELL
-1.05
B27
-1.10
DENOTES DIRECTION OF
GROUNDWATER FLOW
-0.99
B28
5440 Patrick Henry Drive
December 21, 1992
Groundwater Elevations (Feet)
and Potentiometric Surface
ICF Kaiser Engineers

Figure 4

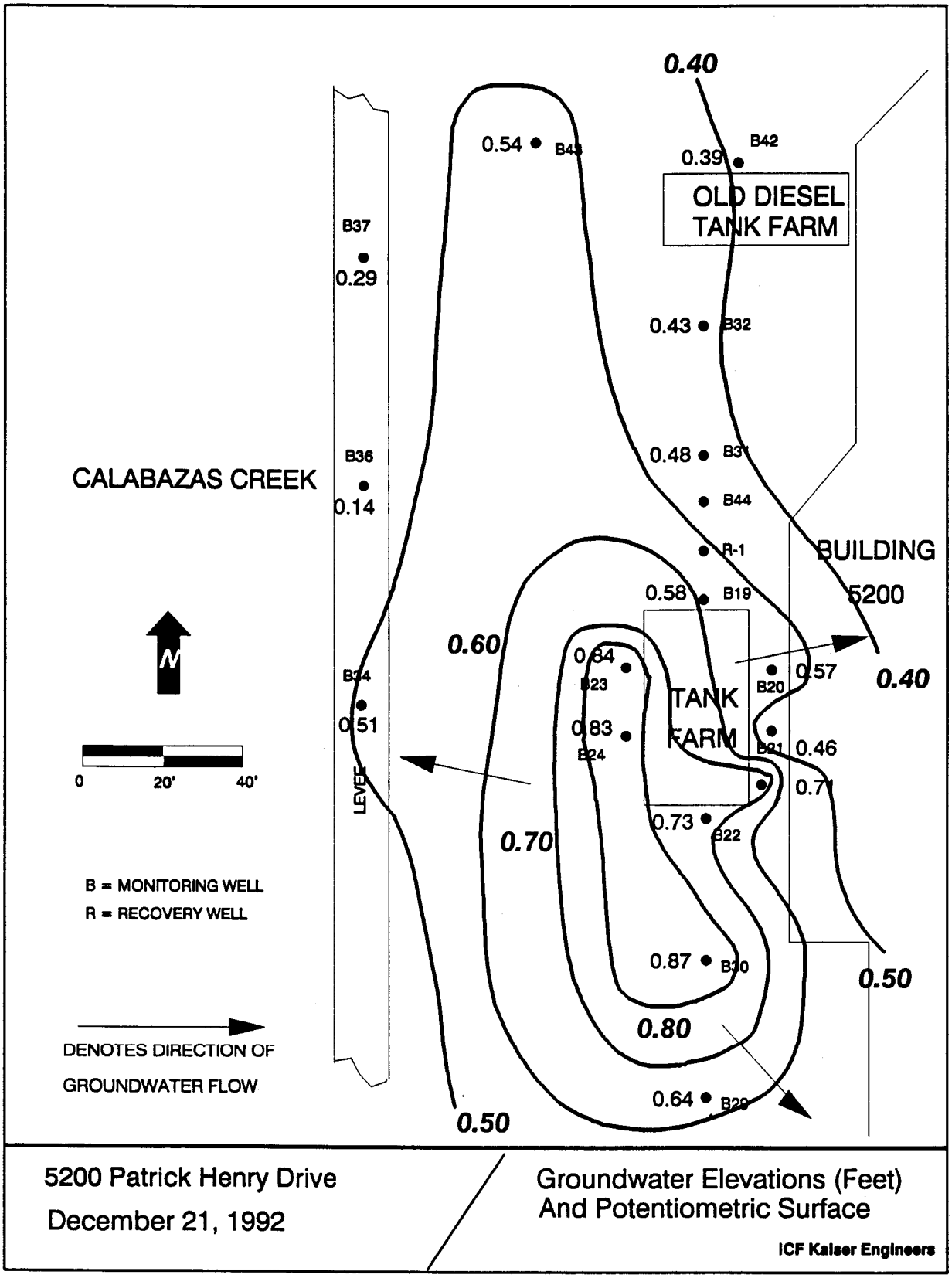

0.40
0.54
B43
B42
0.39
OLD DIESEL TANK FARM
B37
0.29
0.43
B32
CALABAZAS CREEK
B36
0.14
0.48
B31
B44
R-1
BUILDING 5200
0.58
B19
0.60
0.84
B23
TANK FARM
B20
0.57
0.40
B34
0.51
0.83
B24
B21
0.46
0.71
LEVEE
0.73
B22
0.70
0.87
B30
0.50
0.80
0.64
B29
0.50
N
0
20'
40'
B = MONITORING WELL
R = RECOVERY WELL
DENOTES DIRECTION OF GROUNDWATER FLOW
5200 Patrick Henry Drive
December 21, 1992
Groundwater Elevations (Feet) And Potentiometric Surface
ICF Kaiser Engineers

Figure 5

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 9513
(408) 995-553
FAX (408) 293-877

January 5, 1993

Anacomp, Inc.
22351 City Center Drive
Hayward, CA 94541

Attention: Chris van der Woerd

SITE:
5200 & 5440 Patrick Henry Drive
Santa Clara, California

PROJECT:
Water Level Measurements

DATE:
December 21, 1992

Water Level Report 921221-Y-2.WL

Personnel from our office were present at the site on Monday, December 21, 1992 to obtain water levels and conduct a sheen and odor check. Please note that we are reporting only the water levels, not elevations.

Well designation	Well diameter	Depth to surface	Well depth	Sheen/Odor	Measured to: Top of Pipe or Grade
A	2"	7.66'	27.88'	None	PVC
B	2"	7.71'	34.82'	None	PVC
B-9	2"	7.23'	14.22'	None	PVC
B-10	2"	7.15'	17.16'	None	PVC
B-11	2"	7.49'	16.61'	None	PVC
B-12	2"	7.36'	22.92'	None	PVC
B-13	2"	7.34'	19.52'	None	PVC
B-14	2"	7.93'	16.57'	None	PVC
B-19	2"	7.29'	18.30'	None	PVC
B-20	2"	7.50'	18.90'	None	PVC
B-21	2"	7.25'	16.10'	None	PVC
B-22	2"	7.12'	18.59'	None	PVC
B-23	2"	6.90'	18.02'	None	PVC

Well designation	Well diameter	Depth to surface	Well depth	Sheen/Odor	Measured to: Top of Pipe or Grade
B-24	2"	6.70'	19.59'	None	PVC
B-25	2"	6.79'	19.45'	None	PVC
B-26	2"	7.15'	19.34'	None	PVC
B-27	2"	7.61'	17.56'	None	PVC
B-28	2"	7.85'	20.67'	None	PVC
B-29	2"	6.86'	19.74'	None	PVC
B-30	2"	6.76'	19.93'	None	PVC
B-31	2"	6.50'	20.08'	None	PVC
B-32	2"	6.42'	19.70'	None	PVC
B-33	2"	16.43'	21.40'	None	PVC
B-34	2"	15.21'	27.55'	None	PVC
B-35	2"	16.29'	26.17'	None	PVC
B-36	2"	15.29'	29.50'	None	PVC
B-37	2"	15.05'	28.68'	None	PVC
B-38	2"	16.53'	40.89'	None	PVC
B-39	2"	16.74'	35.89'	None	PVC
B-40	2"	7.93'	19.14'	None	PVC
B-41	2"	8.32'	19.40'	None	PVC
B-42	2"	7.09'	19.52'	None	PVC
B-43	2"	7.08'	18.94'	None	PVC
B-44	2"	6.94'	29.15'	None	PVC
B-45	2"	7.18'	22.79'	None	PVC

James Allen for
Richard C. Blaine

RCB/jmb

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

January 5, 1993

Anacomp, Inc.
22351 City Center Drive
Suite 203
Hayward, CA 94541

Attn: Chris van der Woerd

SITE:
5200 & 5440 Patrick Henry Drive
Santa Clara, California

SAMPLING EVENT:
Evacuate and sample twelve wells

DATE:
December 21-22, 1992

GROUNDWATER SAMPLING REPORT 921221-Y-2

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. does not participate in the interpretation of analytical results or become involved with the marketing or installation of remedial systems.

This report deals with the groundwater well sampling performed by our firm in response to your request. Data collected in the course of our work at the site is presented in the TABLE OF WELL MONITORING DATA. This data was collected during our inspection, well evacuation, and sample collection. Measurements include the total depth of the well and depth to water. Water surfaces were further inspected for the presence of immiscibles. A series of electrical conductivity, pH, and temperature readings were obtained during well evacuation and at the time of sample collection. Recharge performance can be evaluated by comparing the anticipated three, four, or five case volume evacuation gallonage with the volume which could actually be purged.

TABLE OF WELL MONITORING DATA

Well I.D.	B-9			B-11			B-19			B-21	
Date Sampled	12/21/92			12/21/92			12/21/92			12/21/92	
Well Diameter (in.)	2			2			2			2	
Total Well Depth (ft.)	14.22			16.61			18.30			16.10	
Depth To Water (ft.)	7.23			7.49			7.29			7.25	
Free Product (in.)	NONE			NONE			NONE			NONE	
Reason If Not Sampled	--			--			--			--	
1 Case Volume (gal.)	1.1			1.4			1.76			1.41	
Did Well Dewater?	NO			NO			NO			NO	
Gallons Actually Evacuated	4.0			5.0			5.5			4.5	
Purging Device	BAILER			BAILER			BAILER			BAILER	
Sampling Device	BAILER			BAILER			BAILER			BAILER	
Time	15:05	15:09	15:12	16:18	16:21	16:24	14:37	14:41	14:46	15:22	15:29	15:33
Temperature (Fahrenheit)	68.1	67.6	67.4	65.6	65.3	66.0	66.6	68.2	69.0	68.8	69.8	69.8
pH	7.4	6.9	6.6	6.8	6.9	6.8	7.2	7.4	7.4	7.5	7.2	7.2
Conductivity (micromhos/cm)	1900	1900	1800	1800	1800	1700	2800	3200	3200	4200	4000	4000
BTS Chain of Custody	921221-Y-2			921221-Y-2			921221-Y-2			921221-Y-2	
BTS Sample I.D.	B-9			B-11			B-19			B-21	
DHS HMTL Laboratory	CURTIS & TOMPKINS			CURTIS & TOMPKINS			CURTIS & TOMPKINS			CURTIS & TOMPKINS	
Analysis	EPA 8240, ISOPROPANOL, CYCLO HEXANONE, & TPH (DIESEL)			EPA 8240, ISOPROPANOL, CYCLO HEXANONE, & TPH (DIESEL)			EPA 8240, ISOPROPANOL, & CYCLO HEXANONE			EPA 8240, ISOPROPANOL, & CYCLO HEXANONE	

TABLE OF WELL MONITORING DATA

Well I.D.	B-24	B-26	B-27	B-29
Date Sampled	--	12/21/92	12/22/92	12/21/92
Well Diameter (in.)	2	2	2	2
Total Well Depth (ft.)	19.59	19.34	17.56	19.74
Depth To Water (ft.)	6.70	7.15	7.61	6.86
Free Product (in.)	NONE	NONE	NONE	NONE
Reason If Not Sampled	DEFORMED CASING*	--	--	--
1 Case Volume (gal.)		1.9	1.59	2.06
Did Well Dewater?		NO	NO	NO
Gallons Actually Evacuated		6.5	5.0	6.5
Purging Device		BAILER	BAILER	BAILER
Sampling Device		BAILER	BAILER	BAILER
Time		16:48 16:51 16:55	09:55 10:05 10:10	16:02 16:08 16:12
Temperature (Fahrenheit)		67.0 67.0 67.4	68.2 68.2 68.2	69.0 70.2 70.4
pH		7.1 7.0 7.0	6.3 7.2 7.2	7.8 7.6 7.6
Conductivity (micromhos/cm)		2600 2400 2400	4100 4000 4100	3900 4000 4000
BTS Chain of Custody		921221-Y-2	921221-Y-2	921221-Y-2
BTS Sample I.D.		B-26	B-27	B-29
DHS HMTL Laboratory		CURTIS & TOMPKINS	CURTIS & TOMPKINS	CURTIS & TOMPKINS
Analysis		EPA 8240, ISOPROPANOL, CYCLO HEXANONE, & TPH (DIESEL)	EPA 8240, ISOPROPANOL, CYCLO HEXANONE, & TPH (DIESEL)	EPA 8240, ISOPROPANOL, & CYCLO HEXANONE

* Well B-24 had a deformed casing which prevented the introduction of even the smallest bailer into the well.

TABLE OF WELL MONITORING DATA

Well I.D.	B-35 *			B-42			B-43			B-45	
Date Sampled	12/22/92			12/22/92			12/22/92			12/21/92	
Well Diameter (in.)	2			2			2			2	
Total Well Depth (ft.)	26.17			19.52			18.94			22.79	
Depth To Water (ft.)	16.29			7.09			7.08			7.18	
Free Product (in.)	NONE			NONE			NONE			NONE	
Reason If Not Sampled	--			--			--			--	
1 Case Volume (gal.)	1.58			1.98			1.89			2.4	
Did Well Dewater?	NO			NO			NO			NO	
Gallons Actually Evacuated	5.0			6.0			6.0			8.0	
Purging Device	BAILER			BAILER			BAILER			BAILER	
Sampling Device	BAILER			BAILER			BAILER			BAILER	
Time	10:53	11:05	11:11	11:29	11:37	11:41	11:01	11:08	11:11	17:17	17:22	17:26
Temperature (Fahrenheit)	65.5	64.9	64.9	68.4	68.6	68.6	66.6	67.8	67.8	65.9	66.4	66.8
pH	8.1	7.7	7.7	7.4	7.2	7.2	7.0	7.8	7.8	7.3	6.8	6.8
Conductivity (micromhos/cm)	3800	3800	3800	3200	3300	3300	3800	3900	3900	2800	2600	2600
BTS Chain of Custody	921221-Y-2			921221-Y-2			921221-Y-2			921221-Y-2	
BTS Sample I.D.	B-35			B-42			B-43			B-45	
DHS HMTL Laboratory	CURTIS & TOMPKINS			CURTIS & TOMPKINS			CURTIS & TOMPKINS			CURTIS & TOMPKINS	
Analysis	EPA 8240, ISOPROPANOL, CYCLO HEXANONE, & TPH (DIESEL)			EPA 8240, ISOPROPANOL, & CYCLO HEXANONE			EPA 8240, ISOPROPANOL, & CYCLO HEXANONE			EPA 8240, ISOPROPANOL, CYCLO HEXANONE, & TPH (DIESEL)	

* Sample ID B-63 was a duplicate sample taken at well B-35.

EQUIPMENT

Selection of Sampling Equipment

The determination of what apparatus is to be used on particular wells may be made by the property owner or the professional consultant directing the performance of the monitoring on the property owner's behalf. If no specific requirement is made known to us, our personnel will select equipment that will accomplish the work in the most efficient manner. Our personnel are equipped with a variety of sampling devices that include USGS/Middleburg pumps, down hole electric submersible pumps, air lift pumps, suction pumps, and bailers made of both Teflon and stainless steel.

Evacuation and Sampling Equipment Mechanics

When equipment is not selected by the client, the apparatus for well evacuation and sample collection is selected by our field personnel based on an evaluation of the field conditions. Four types of devices are commonly available for employment:

Bailers
High Volume Suction Pumps
Electric Submersible Pumps
USGS/Middleburg positive displacement sampling pumps

Bailers were selected for the collection of samples at this site.

Bailers: A bailer, in its simplest form, is a hollow tube which has been fitted with a check valve at the lower end. The device can be lowered into a well by means of a cord. When the bailer enters the water, the check valve opens and liquid flows into the interior of the bailer. The bottom check valve prevents water from escaping when the bailer is drawn up out of the well.

Two types of bailers are used in groundwater wells at sites where fuel hydrocarbons are of concern. The first type of bailer is made of a clear material such as acrylic plastic and is used to obtain a sample of the surface and the near surface liquids in order to detect the presence of visible or measurable fuel hydrocarbon floating on the surface. The second type of bailer is made of Teflon or stainless steel and is used as an evacuation and/or sampling device.

Bailers are inexpensive and relatively easy to clean. Because they are manually operated, variations in operator technique may have a greater influence than would be found with more automated sampling equipment. Also where fuel is involved, the bailer may include near surface contaminants that are not representative of water deeper in the well.

STANDARD PRACTICES

Evacuation

There are few accepted groundwater sampling protocols that do not call for the evacuation of at least three case volumes of water prior to sample collection, and there are situations where up to ten case volumes of evacuation may be requested. Different professional consultants may specify different levels of evacuation prior to sampling or may request that specific parameters be used to determine when to collect the sample. Our personnel use several standard instruments to record the changes in parameters as the well is evacuated. These instruments are used regardless of whether or not a specific volumetric standard has been called for. As a result, the consultant will always be provided with a record of the pH, EC, and temperature changes that occurred during the evacuation process. Additional information obtained with different types of instruments (such as dissolved oxygen and turbidity meters) can also be collected if requested in advance.

Effluent Materials

Groundwater well sampling protocols call for the evacuation of a sufficient volume of water from the well to insure that the sample is collected from water than has been newly drawn into the well from the surrounding geologic formation. The evacuation of this purge water creates a volume of effluent water which must be contained. Blaine Tech Service, Inc. will place this water in appropriate containers of the client's choice or bring new DOT 17 E drums to the site which are appropriate for the containment of the effluent materials. The determination of how to properly dispose of the effluent water must usually await the results of laboratory analyses of the sample collected from the groundwater well. If that sample does not establish whether or not the effluent water is contaminated, or if effluent from more than one source has been combined in the same container, it may be necessary to conduct additional analyses on the effluent material.

Observations and Measurements

Included in the scope of work are routine measurements and investigative procedures which are intended to determine if the wells are suitable for evacuation and sampling. These include measurement (from the top of the well case) of the total depth of the well; the depth to water, and the thickness of any free product zone (FPZ) encountered. The presence of a significant free product zone may interfere with efforts to collect a water sample that accurately reflects the condition of groundwater lying below the FPZ. This interference is caused by adhesion of petroleum to any device being lowered through the FPZ and the likelihood that minute globules of petroleum may break free of the sampling device and be included in the sample. Accordingly, evaluation of analytical results from wells containing any amount of free petroleum should take into account the possibility that positive results have been skewed higher by such an inclusion. The decision to sample or not sample such wells is left to the discretion of our field personnel at the site and the consultant who establishes sampling guidelines based on the need for current information on groundwater conditions at the site.

Sampling Methodology

Samples were obtained by standardized sampling procedures that follow an evacuation and sample collection protocol. The sampling methodology conforms with State and Regional Water Quality Control Board standards and specifically adheres to EPA requirements for apparatus, sample containers and sample handling as specified in publication SW 846.

Sample Containers

Sample material is collected in specially prepared containers appropriate to the type of analyses intended. Our firm uses new sample containers of the type specified by either EPA or the RWQCB. Often times analytical laboratories wish to supply the sample containers because checks performed on these bottles are often part of a comprehensive laboratory QC program. In cases where the laboratory does not supply sample containers our personnel collect water samples in containers that are appropriate to the type of analytical procedure that the sample is to receive. For example, 40 ml volatile organic analysis vials (VOAs) are used when analysis for gasoline and similar light volatile compounds is intended. These containers are prepared according to EPA SW 846 and will usually contain a small amount of preservative when the analysis is for TPH as gasoline or EPA 602. Vials intended for EPA 601 analysis and EPA 624 GCMS procedures are not preserved. The closure of volatile organic analysis water sample containers is accomplished with an open headed (syringe accessible) plastic screw cap brought down on top of a Teflon faced septum which is used to seal the sample without headspace.

Water samples intended for semivolatile and nonvolatile analysis such as total oil and grease (TOG) and diesel (TPH HBF) are collected and transported in properly prepared new glass liter bottles. Dark amber glass is used in the manufacture of these bottles to reduce any adverse effect on the sample by sunlight. Antimicrobial preservative may be added to the sample liquid if a prolonged holding time is expected prior to analysis. Closure is accomplished with a heavy plastic screw cap.

Groundwater well samples intended for metals analysis are transported in new plastic bottles and preserved with nitric acid. Our personnel can field filter the sample liquid prior to placing it in the sample container if instructed to perform this procedure.

Sample Handling Procedures

Water samples are collected in any of several appropriate devices such as bailers, Coliwasas, Middleburg sampling pumps etc. which are described in detail only as warranted by their employment at a given site. Sample liquid is decanted into new sample containers in a manner which reduces the loss of volatile constituents and follows the applicable EPA procedures for handling volatile organic and semi-volatile compounds. Only two variations from the EPA methods are generally employed. First, preservative is added to the sample container prior to addition of the sample liquid. We first discovered this method in bottles prepared by Stoner Laboratories in 1982. It was subsequently adopted by many northern California laboratories and environmental consulting firms as a practical means of reducing the time that a liquid is allowed to aerate prior to closure of the sampling container. Second, because tests have shown that the preservative readily mixes with sample liquid, glass stirring rods are not used to agitate the sample/preservative mixture.

Groundwater samples that are to receive metals analyses can be filtered prior to being placed in the plastic sample bottles that contain the nitric acid preservative. The filtration process employs new glass containers which are discarded and laboratory quality disposable filtering containers which are also discarded. A frequently used filtering procedure employs a vacuum pump to draw sample material through a 0.45 micron filter. The 0.45 micron pore size is standard, but the amount of filter available varies with the type of package selected. Filters are selected on the basis of the relative turbidity of the water sample. Samples which are relatively clean can be efficiently filtered with relatively inexpensive filters while very turbid water will require a very large filter with a high tolerance for sediments. One of many such filters our firm uses are the Nalgene Type A filters in which an upper and lower receptacle chamber are affixed to the filter. Sample material is poured into the upper chamber and a vacuum pump attached to the lower chamber. Simple actuation of the vacuum pump induces the flow of water through the filter and into the lower chamber. The sample is then decanted into the laboratory container and the filter assembly discarded.

Following collection, samples are promptly placed in an ice chest containing prefrozen blocks of an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

Sample Designations

All sample containers are identified with both a sampling event number and a discrete sample identification number. Please note that the sampling event number is the number that appears on our chain of custody. It is roughly equivalent to a job number, but applies only to work done on a particular day of the year rather than spanning several days as jobs and projects often do.

Chain of Custody

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under our standard chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to Curtis & Tompkins Ltd. in Berkeley, California. Curtis & Tompkins Ltd. is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1459.

Personnel

All Blaine Tech Services, Inc. personnel receive 29 CFR 1910.120(e)(2) training as soon after being hired as is practical. In addition, many of our personnel have additional certifi-

cations that include specialized training in level B supplied air apparatus and the supervision of employees working on hazardous materials sites. Employees are not sent to a site unless we are confident they can adhere to any site safety provisions in force at the site and unless we know that they can follow the written provisions of an SSP and the verbal directions of an SSO.

In general, employees sent to a site to perform groundwater well sampling will assume an OSHA level D (wet) environment exists unless otherwise informed. The use of gloves and double glove protocols protects both our employees and the integrity of the samples being collected. Additional protective gear and procedures for higher OSHA levels of protection are available.

Decontamination

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site. Decontamination procedures include complete disassembly of the device to a point where a jet of steam cleaner water can be directed onto all the internal surfaces (this applies to the *inside* of the Teflon bladders of USGS/Middleburg pumps). Teflon conductor tubing is connected to the steam cleaner water outlet and water is run through the interior of the tubing for several minutes. The devices are then reassembled and actuated for a period of time as an additional measure. Blaine Tech Services, Inc. frequently modifies apparatus to allow complete disassembly and proper cleaning.

Reportage

Submission to the Regional Water Quality Control Board and the local implementing agency should include copies of the sampling report, the chain of custody, and the certified analytical report issued by the Hazardous Materials Testing Laboratory. The property owner should attach a cover letter and submit all documents together in a package.

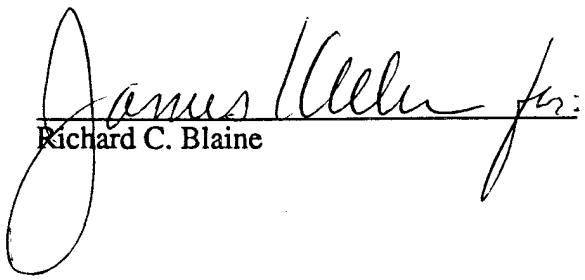
The following addresses have been listed here for your convenience:

Water Quality Control Board
San Francisco Bay Region
2101 Webster Street
5th Floor
Oakland, CA 94612
ATTN: SCC Local Program Coordinator

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
ATTN: Belinda Allen

Santa Clara Fire Department
777 Benton St.
Santa Clara, CA 95050
ATTN: Dr. Larry Monette

Please call if we can be of any further assistance.



Richard C. Blaine

RCB/jmb

attachments: chain of custody

BLAINE TECH SERVICES INC.

1370 TULLY ROAD., SUITE 505
SAN JOSE, CA 95122
(408) 995 5535

CHAIN OF CUSTODY: 921221-Y-2

CLIENT: Anacomp

SITE: 5200 & 5440 Patrick Henry
Santa Clara CA

LAB: Curtis & Tompkins DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION _____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

CONDUCT ANALYSIS TO DETECT

SAMPLE I.D.	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	CONTAINERS	C = COMPOSITE ALL CONTAINERS	8240 + Cyclohexanone + Isopropanol	TPH Diesel	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
B-19	W	3	40ml VOAs		✓					
B-21	W	3	40ml VOAs		✓					
B-29	W	3	40ml VOAs		✓					
B-42	W	3	40ml VOAs		✓					
B-43	W	3	40ml VOAs (40)		✓					
B-9	W	4	3 VOAs (40) 1 L		✓	✓				
B-11	W	4	3 VOAs (40) 1 L		✓	✓				
B-26	W	4	3 40ml 1 L		✓	✓				
B-27	W	4	3 40ml 1 L		✓	✓				
B-35	W	4	3 40ml 1 L		✓	✓				

SAMPLING COMPLETED: DATE 12/22/92 TIME 1650

SAMPLING PERFORMED BY: Joe Carrera, Don Weltz, Fred Vanden Broeck

RESULTS NEEDED NO LATER THAN: Routine

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Don Weltz	12-23-92	3:55	Tracy E. Winkler	12-23-92	1355

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

BLAINE TECH SERVICES INC.

1370 TULLY ROAD., SUITE 505
SAN JOSE, CA 95122
(408) 995 5535

CHAIN OF CUSTODY: 921221-Y-2

CLIENT: Anacomp

SITE: 5200 & 5440 Patrick Henry
Santa Clara CA

LAB: Curtis & Tompkins | DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- ☐ EPA
- ☐ LIA
- ☐ OTHER
- ☐ RWQCB REGION

SPECIAL INSTRUCTIONS

CONDUCT ANALYSIS TO DETECT

SAMPLE I.D.	MATRIX (S = SOIL, W = H2O)	CONTAINERS TOTAL	CONTAINERS	C = COMPOSITE ALL CONTAINERS	8240+ Cyclohexanone + Isopropanol	TPH Diesel	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
B-45	W	4	3 VOAS 1 L		✓	✓				
B-63	W	3	3 VOAS		✓					
TB	W	2	2 VOAS		✓					
Field Blank	W	4	1 L 3 VOAS		✓	✓				

SAMPLING COMPLETED: DATE 12/22/92 TIME 1150

SAMPLING PERFORMED BY: Joe Carrera, Don Weltz, Fred Van den Broeck

RESULTS NEEDED NO LATER THAN: Routine

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Don Weltz	12-23-92	13:55	Troy E. Winkler	12-23-92	1355

SHIPPED VIA | DATE SENT | TIME SENT | COOLER #

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

DATE RECEIVED: 12/23/92
DATE REPORTED: 01/07/93

LABORATORY NUMBER: 109619

CLIENT: ANACOMP

LOCATION: 5200 & 5440 PATRICK HENRY DRIVE

RESULTS: SEE ATTACHED

Reviewed by

Reviewed by

This report may be reproduced only in its entirety.

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE EXTRACTED: 01/04/93
DATE ANALYZED: 01/05-06/93
DATE REPORTED: 01/07/93

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT* (ug/L)
109619-6	B-9	**	830	50
109619-7	B-11	**	860	50
109619-8	B-26	**	650	50
109619-9	B-27	**	110	50
109619-10	B-35	**	370	50
109619-11	B-45	**	350	50
109619-14	FIELD BLANK	ND	70	50

ND = Not detected at or above reporting limit.

* Reporting limit applies to all analytes.

**Kerosene range not reported. Quantitated as diesel range.

QA/QC SUMMARY

RPD, %	6
RECOVERY, %	99

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-1
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: B-19

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 12/30/92
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	107 %
Toluene-d8	98 %
Bromofluorobenzene	99 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-2
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: B-21

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 12/30/92
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	105 %
Toluene-d8	98 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-3
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: B-29

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 12/30/92
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND		Result ug/L	Reporting Limit (ug/L)
Chloromethane		ND	10
Bromomethane		ND	10
Vinyl chloride		ND	10
Chloroethane		ND	10
Methylene chloride		ND	20
Acetone		ND	20
Carbon disulfide		ND	5
Trichlorofluoromethane		ND	5
1,1-Dichloroethene		ND	5
1,1-Dichloroethane		ND	5
cis-1,2-Dichloroethene		ND	5
trans-1,2-Dichloroethene		ND	5
Chloroform		ND	5
Freon 113	detected	(4)	5
1,2-Dichloroethane		ND	5
2-Butanone		ND	10
1,1,1-Trichloroethane		ND	5
Carbon tetrachloride		ND	5
Vinyl acetate		ND	10
Bromodichloromethane		ND	5
1,2-Dichloropropane		ND	5
cis-1,3-Dichloropropene		ND	5
Trichloroethene		ND	5
Dibromochloromethane		ND	5
1,1,2-Trichloroethane		ND	5
Benzene		ND	5
trans-1,3-Dichloropropene		ND	5
Bromoform		ND	5
2-Hexanone		ND	10
4-Methyl-2-pentanone		ND	10
1,1,2,2-Tetrachloroethane		ND	5
Tetrachloroethene		ND	5
Toluene		ND	5
Chlorobenzene		ND	5
Ethyl benzene		ND	5
Styrene		ND	5
Total xylenes		ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	105 %
Toluene-d8	97 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-4
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: B-42

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 01/04/93
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	101 %
Toluene-d8	95 %
Bromofluorobenzene	99 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-5
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: B-43

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 01/04/93
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	106 %
Toluene-d8	96 %
Bromofluorobenzene	99 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-6
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: B-9

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 01/04/93
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	104 %
Toluene-d8	93 %
Bromofluorobenzene	99 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-7
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: B-11

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 01/04/93
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	97 %
Toluene-d8	93 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-8
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: B-26

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 01/05/93
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	107 %
Toluene-d8	98 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-9
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: B-27

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 01/04/93
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	93 %
Toluene-d8	94 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-10
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: B-35

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 12/31/92
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	112 %
Toluene-d8	96 %
Bromofluorobenzene	100 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-11
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: B-45

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 01/05/93
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	8	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	108 %
Toluene-d8	98 %
Bromofluorobenzene	97 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-12
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: B-63

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 01/05/93
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	107 %
Toluene-d8	100 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-13
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: TB

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 01/05/93
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	112 %
Toluene-d8	97 %
Bromofluorobenzene	99 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-14
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY
SAMPLE ID: FIELD BLANK

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 01/05/93
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	104 %
Toluene-d8	97 %
Bromofluorobenzene	93 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-METHOD BLANK
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY

DATE ANALYZED: 12/30/92
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	109 %
Toluene-d8	99 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-METHOD BLANK
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY

DATE ANALYZED: 12/31/92
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	112 %
Toluene-d8	98 %
Bromofluorobenzene	101 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-METHOD BLANK
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY

DATE ANALYZED: 01/04/93
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	104 %
Toluene-d8	94 %
Bromofluorobenzene	99 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619-METHOD BLANK
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY

DATE ANALYZED: 01/05/93
DATE REPORTED: 01/07/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	106 %
Toluene-d8	97 %
Bromofluorobenzene	98 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY DRIVE

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 12/30/92-01/04/93
DATE REPORTED: 01/07/93

ANALYSIS: CYCLOHEXANONE
ANALYSIS METHOD: EPA 8240

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
109619-1	B-19	ND	ug/L	100
109619-2	B-21	ND	ug/L	100
109619-3	B-29	ND	ug/L	100
109619-4	B-42	ND	ug/L	100
109619-5	B-43	ND	ug/L	100
109619-6	B-9	ND	ug/L	100
109619-7	B-11	ND	ug/L	100
109619-8	B-26	ND	ug/L	100
109619-9	B-27	ND	ug/L	100
109619-10	B-35	ND	ug/L	100
109619-11	B-45	ND	ug/L	100
109619-12	B-63	ND	ug/L	100
109619-13	TB	ND	ug/L	100
109619-14	FIELD BLANK	ND	ug/L	100
109619-METHOD BLANK(12/30/92)		ND	ug/L	100
109619-METHOD BLANK(12/31/92)		ND	ug/L	100
109619-METHOD BLANK(01/04/93)		ND	ug/L	100
109619-METHOD BLANK(01/05/93)		ND	ug/L	100

ND = Not detected at or above reporting limit.

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109619
CLIENT: ANACOMP
LOCATION: 5200 & 5440 PATRICK HENRY DRIVE

DATE SAMPLED: 12/22/92
DATE RECEIVED: 12/23/92
DATE ANALYZED: 12/30/92-01/04/93
DATE REPORTED: 01/07/93

ANALYSIS: ISOPROPYL ALCOHOL
ANALYSIS METHOD: EPA 8240

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
109619-1	B-19	ND	ug/L	100
109619-2	B-21	ND	ug/L	100
109619-3	B-29	ND	ug/L	100
109619-4	B-42	ND	ug/L	100
109619-5	B-43	ND	ug/L	100
109619-6	B-9	ND	ug/L	100
109619-7	B-11	ND	ug/L	100
109619-8	B-26	ND	ug/L	100
109619-9	B-27	ND	ug/L	100
109619-10	B-35	ND	ug/L	100
109619-11	B-45	ND	ug/L	100
109619-12	B-63	ND	ug/L	100
109619-13	TB	ND	ug/L	100
109619-14	FIELD BLANK	ND	ug/L	100
109619-METHOD BLANK(12/30/92)		ND	ug/L	100
109619-METHOD BLANK(12/31/92)		ND	ug/L	100
109619-METHOD BLANK(01/04/93)		ND	ug/L	100
109619-METHOD BLANK(01/05/93)		ND	ug/L	100

ND = Not detected at or above reporting limit.

Curtis & Tompkins, Ltd.

LCS SUMMARY SHEET FOR EPA 8240

Laboratory Number: 109619
Client: Anacomp
Analysis date: 12/30/92 LCS file: clu06
Sample type: Water

LCS DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	49.44	99 %	OK	61 - 145
Benzene	48.68	97 %	OK	71 - 120
Trichloroethene	48.36	97 %	OK	76 - 127
Toluene	47.10	94 %	OK	76 - 125
Chlorobenzene	47.16	94 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	54.21	108 %	OK	76 - 114
Toluene-d8	48.67	97 %	OK	88 - 110
Bromofluorobenzene	49.32	99 %	OK	86 - 115

Curtis & Tompkins, Ltd.

LCS SUMMARY SHEET FOR EPA 8240

Laboratory Number: 109619
Client: Anacomp
Analysis date: 12/31/92 LCS file: alv03
Sample type: Water

LCS DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	43.98	88 %	OK	61 - 145
Benzene	40.61	81 %	OK	71 - 120
Trichloroethene	41.08	82 %	OK	76 - 127
Toluene	40.71	81 %	OK	76 - 125
Chlorobenzene	41.55	83 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	55.59	111 %	OK	76 - 114
Toluene-d8	49.59	99 %	OK	88 - 110
Bromofluorobenzene	50.62	101 %	OK	86 - 115

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number: 109619
Client: Anacomp
Analysis date: 01/05/93
Sample type: Water
Spike file: aa420
Spike dup file: aa421

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	50.98	102 %	OK	61 - 145
Trichloroethene	49.74	99 %	OK	71 - 120
Benzene	49.35	99 %	OK	76 - 127
Toluene	49.56	99 %	OK	76 - 125
Chlorobenzene	50.15	100 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	52.24	104 %	OK	76 - 114
Toluene-d8	50.43	101 %	OK	88 - 110
Bromofluorobenzene	50.67	101 %	OK	86 - 115

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	46.51	93 %	OK	61 - 145
Trichloroethene	48.23	96 %	OK	71 - 120
Benzene	48.10	96 %	OK	76 - 127
Toluene	47.61	95 %	OK	76 - 125
Chlorobenzene	48.80	98 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	52.13	104 %	OK	76 - 114
Toluene-d8	49.87	100 %	OK	88 - 110
Bromofluorobenzene	50.90	102 %	OK	86 - 115

MATRIX RESULTS	
1,1-Dichloroethene	0
Trichloroethene	0
Benzene	0
Toluene	0
Chlorobenzene	0

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	50.98	46.51	9 %	OK	< 14
Trichloroethene	49.74	48.23	3 %	OK	< 14
Benzene	49.35	48.10	3 %	OK	< 11
Toluene	49.56	47.61	4 %	OK	< 13
Chlorobenzene	50.15	48.80	3 %	OK	< 13

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number: 109619
Client: Anacomp
Analysis date: 01/05/93
Sample type: Water
Spike file: ca510
Spike dup file: ca511

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	65.14	130 %	OK	61 - 145
Trichloroethene	44.51	89 %	OK	71 - 120
Benzene	47.90	96 %	OK	76 - 127
Toluene	42.88	86 %	OK	76 - 125
Chlorobenzene	41.23	82 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	52.60	105 %	OK	76 - 114
Toluene-d8	48.49	97 %	OK	88 - 110
Bromofluorobenzene	47.67	95 %	OK	86 - 115

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	60.90	122 %	OK	61 - 145
Trichloroethene	43.28	87 %	OK	71 - 120
Benzene	45.95	92 %	OK	76 - 127
Toluene	41.21	82 %	OK	76 - 125
Chlorobenzene	39.45	79 %	OK	75 - 130
SURROGATES				
1,2-Dichloroethane-d4	52.46	105 %	OK	76 - 114
Toluene-d8	47.63	95 %	OK	88 - 110
Bromofluorobenzene	48.65	97 %	OK	86 - 115

MATRIX RESULTS	
1,1-Dichloroethene	0
Trichloroethene	0
Benzene	0
Toluene	0
Chlorobenzene	0

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	65.14	60.90	7 %	OK	< 14
Trichloroethene	44.51	43.28	3 %	OK	< 14
Benzene	47.90	45.95	4 %	OK	< 11
Toluene	42.88	41.21	4 %	OK	< 13
Chlorobenzene	41.23	39.45	4 %	OK	< 13

109619

BLAINE TECH SERVICES INC.

1370 TULLY ROAD., SUITE 505
SAN JOSE, CA 95122
(408) 995 5535

LAB Curtis & Tompkins DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION
☐ LIA
☐ OTHER

CHAIN OF CUSTODY 921221-Y-2

CLIENT Anacomp

SITE 5200 & 5440 Patrick Henry
Santa Clara CA

SPECIAL INSTRUCTIONS

SAMPLE I.D.	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	CONTAINERS	C = COMPOSITE ALL CONTAINERS	8240 + Cyclohexanone	+ Isopropanol	TPH Diesel	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
B-19	W	3	40ml VOAs		✓						109619 -1
B-21	W	3	40ml VOAs		✓						-2
B-29	W	3	40ml VOAs		✓						-3
B-42	W	3	40ml VOAs		✓						-4
B-43	W	3	40ml VOAs		✓						-5
B-9	W	4	3 VOAs (40) 1 L		✓		✓				-6
B-11	W	4	3 VOAs (40) 1 L		✓		✓				-7
B-26	W	4	3 40ml 1 L		✓		✓				-8
B-27	W	4	3 40ml 1 L		✓		✓				-9
B-35	W	4	3 40ml 1 L		✓		✓				-10

SAMPLING COMPLETED DATE 12/22/92 TIME 1150

SAMPLING PERFORMED BY Joe Carrera, Don Weltz, Fred Vanden Broeck

RESULTS NEEDED NO LATER THAN Routine

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Don Weltz	12-23-92	13:55	Troy E. Wright	12-23-92	1355

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

109619

BLAINE
TECH SERVICES INC.

1370 TULLY ROAD., SUITE 505
SAN JOSE, CA 95122
(408) 995 5535

CHAIN OF CUSTODY 92122I-Y-2
CLIENT Macomp
SITE 5200 & 5440 Patrick Henry
Santa Clara CA

LAB Curtis & Tompkins DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

SAMPLE I.D.	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: 8240 + Cyclohexanone + Isopropanol	TPH Diesel	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
B-45	W	4	3 VOAs 1 L		✓	✓				109619-1
B-63	W	3	3 VOAs		✓					-2
TB	W	2	2 VOAs		✓					-3
Field Blank	W	4	3 VOAs 1 L		✓	✓				-4

SAMPLING COMPLETED DATE 12/22/92 TIME 1150
SAMPLING PERFORMED BY Joe Carrera Don Weltz Fred Vonden Broeck
RESULTS NEEDED NO LATER THAN Routine

		DATE	TIME		DATE	TIME
RELEASED BY	Don Weltz	12-23-92	13:55	RECEIVED BY	Mary Smith	12-23-92 1355
RELEASED BY				RECEIVED BY		
RELEASED BY				RECEIVED BY		

SHIPPED VIA | DATE SENT | TIME SENT | COOLER #

XIDEX
CORPORATION

CALIFORNIA REGIONAL WATER
DEC 15 1988
QUALITY CONTROL BOARD

December 12, 1988

Mr. John Wolfenden
Water Resource Engineer
California Regional Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street, Room 6040
Oakland, CA 94607

Dear Mr. Wolfenden:

Enclosed is the bi-monthly groundwater monitoring report required by Board Order 85-131 for Xidex Corporation. This report covers Xidex facilities located at 5200 and 5440 Patrick Henry Drive, Santa Clara, California, formerly owned by Dysan Corporation.

This report is for the month of October, 1988. The report was delayed due to changes in environmental staffing.

If you have any questions regarding the report, please call me at (408) 970-6453.

Very truly yours,

Chris van der Woerd
Environmental Specialist

CVDW:js

cc: Tom Iwamura, SCVWD
Lee Esquibel, SCCHD
Robert Campbell, City of Santa Clara
Howard Hatayama, DOHS/TSCD

OCTOBER.RPT

P.O.Box 58053
Santa Clara, Ca 95050
(408) 988-3472

File 2189.8118

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER 85-131 ← Rescinded by RWQCB on 1/19/94 -SAH

WASTE DISCHARGE REQUIREMENTS
(SITE CLEANUP REQUIREMENTS) FOR:

XIDEX CORPORATION
PATRICK HENRY DRIVE FACILITY
CITY OF SANTA CLARA
SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Xidex Corporation, hereinafter called the discharger, owns and operates a computer disk manufacturing facility located at 5201 Patrick Henry Drive in the City of Santa Clara, Santa Clara County, approximately 7/10 of a mile east of the intersection of Lawrence Expressway and Mountain View - Alviso Road.

2. Subsurface investigations initiated in July 1982 detected high levels of various industrial solvents, including methyl ethyl ketone, cyclohexanone, isopropyl alcohol, and acetone, in both soils and groundwaters in the vicinity of two underground tank farms located adjacent to buildings 5200 and 5440. The pollution appears to be a result of spillage, inadequate chemical handling practices, overflows, and/or possible leakage.

3. The discharger has completed additional investigation to delineate the extent of the solvent pollution in the soils and groundwater. As of July 1985, the solvent pollution has been shown to consist of two separate pollutant plumes localized around the tank farms, and to extend vertically to a depth of approximately 30 feet. Concentrations of methyl ethyl ketone in recent groundwater samples were as high as 3,600,000 parts per billion.

4. The underground tanks have subsequently been flushed and removed from service, and the discharger has proposed to control and cleanup the polluted groundwaters by extraction pumping.

5. The Board finds that remedial action is necessary to prevent the continued migration of pollutants to unaffected groundwaters and to preclude potential loss of beneficial uses of said waters.

2189, 811 8

6. The Board adopted a revised Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region on July 21, 1982. The Basin Plan contains water quality objectives for groundwater.

7. The existing and potential beneficial uses of the groundwater underlying the facility below an approximate depth of 150 feet include:

   a. Municipal Water Supply
   b. Domestic Water Supply
   c. Agricultural Water Supply
   d. Industrial Service and Process Water Supply

8. This project constitutes a minor modification to land and such activity is thereby exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with Section 15304 of the Resources Agency Guidelines.

9. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

10. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and the regulations adopted thereunder, shall comply with the following:

A. <u>Prohibitions</u>

   1. The discharge of waste or hazardous materials in a manner which will degrade the water quality or adversely affect beneficial uses of the groundwaters or surface waters of the State is prohibited.

   2. Futher significant migration of pollutants through subsurface transport to usable groundwaters is prohibited.

   3. Methods used to investigate, contain, and/or clean up the polluted groundwaters shall not cause the spread of pollution in an adverse manner.

B. Specifications

1. The treatment or disposal of waste shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

2. The discharger shall conduct monitoring activities as needed to define the local hydrogeological conditions, and the lateral and vertical extent of the soil and groundwater pollution in and contiguous to the zone of known pollution. Should monitoring results show evidence of plume migration, additional plume characterization shall be required.

C. Provisions

1. The discharger shall submit to the Board technical reports on self-monitoring work performed according to a program approved by the Executive Officer.

2. The discharger shall comply with Prohibitions A.1, A.2, and A.3, and Specifications B.1 and B.2 above, in accordance with the following tasks and time schedule:

Task	Completion Date
a. Submit a technical report acceptable to the Executive Officer which describes the proposed method of treatment and disposal of extracted groundwaters at buildings 5200 and 5440, and which proposes specific measures to monitor and evaluate the adequacy of the extraction wells to contain and clean up the pollutant plumes.	Dec. 1, 1985
b. Complete the installation of facilities necessary to extract, treat, and dispose of the polluted groundwaters, and commence cleanup of the pollutant plumes at buildings 5200 and 5440.	Dec. 15, 1985

c. Submit a technical report acceptable to the Executive Officer which evaluates the effectiveness of the extraction system. Such an evaluation shall include, but need not be limited to, an estimation of the flow capture zones of the wells, establishment of the cones of depression by field measurements, and presentation of chemical monitoring data. Specific modifications to the system shall be proposed in the event that the extraction wells are demonstrated not to be effective in containing and cleaning up the pollutant plumes. Feb. 1, 1985

3. Reports submitted pursuant to Specification B.2, and Provisions C.1 and C.2 of this Order shall include, but need not be limited to, groundwater gradient contour maps, pollution concentration contour maps, updated cross-sectional geological maps describing the hydrogeological setting of the site, and appropriately scaled and detailed base maps showing the location of all monitoring and extraction wells, and identifying all adjacent facilities and structures. All hydrogeological plans, specifications, reports, and documents shall be signed and/or stamped with the seal of a registered geologist, engineering geologist, or professional engineer.

4. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order, shall be provided to the following agencies:

   a. Santa Clara Valley Water District
   b. Santa Clara County Health Department
   c. City of Santa Clara
   d. State Department of Health Services/TSCD
   e. State Department of Health Services/Sanitary Div.

5. The discharger shall submit bi-monthly progress reports beginning on December 1, 1985, to the Regional Board demonstrating compliance with the Prohibitions, Specifications, and Provisions of this Order. In the event of non-compliance with the tasks and time schedule of Provision C.1 and C.2 of this Order, the discharger shall clarify the reasons for non-compliance and shall propose specific measures to be taken to achieve compliance.

6. All samples shall be analyzed by State certified laboratories using approved EPA methods for the type of anaysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.

7. The discharger shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:

   a. Entry upon any premises where any pollution source exists, or may potentially exist, or in which any required records are kept.

   b. Access at reasonable times to copy any records required to be kept under the terms and conditions of this Order.

   c. Inspection of any monitoring equipment or methods required by this Order.

   d. Sampling of any groundwater or soil which is accessible, or may become accessible as part of any investigation or remedial action program, to the discharger.

8. The discharger shall file a report on any material changes in the nature, quantity, or transport of polluted groundwater associated with the pollution described in this Order.

9. The discharger shall maintain in good working order and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.

10. The Board will review this Order periodically and may revise the requirements when necessary.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on November 20, 1985.

Lawrence P. Kolb
for
ROGER B. JAMES
Executive Officer

PERMIT

SANTA CLARA FIRE DEPARTMENT

Address: 5200 Patrick Henry Dr. Plan Check # P90-696

Owner: XIDEX Station # 10

Date: 12-18-90 Fee $ Paid directly to

Date of Event: Check # Revenue & Collect.

Permission is hereby granted to install the following fire protection equipment or perform the following activity:

PERMIT VOID IF UNSIGNED

	FIRE PROTECTION EQUIPMENT / ACTIVITY		DATE	FINALED BY
( )	**AUTOMATIC FIRE SPRINKLERS: UNDERGROUND**	(To comply with NFPA #24)		
( )	**AUTOMATIC FIRE SPRINKLERS: OVERHEAD**	(To comply with NFPA #13)		
( )	**BONFIRE:**	(To comply with UFC)		
( )	**FIRE ALARM:**	(To comply with NFPA/Title 24, CAC)		
( )	**FIREWORKS DISPLAY:**	(To comply with UFC)		
( )	**FUMIGATION:**	(To comply with UFC)		
( )	**HALON:**	(To comply with NFPA #12A,B)		
( )	**HOOD AND DUCT:**	(To comply with NFPA #96)		
( )	**MEDICAL GAS:**	(To comply with NFPA #56F)		
( )	**STANDPIPE:**	(To comply with NFPA #14)		
( )	**TANK:** ( ) **REMOVAL** ( ) **INSTALLATION**	(To comply with UFC)		
( )	**TENT:**	(To comply with UFC)		
XX	HMC: COMPLETE BUSINESS CLOSURE		4/22/91	J. Leonard

Applicant: Xidex Corporation Phone No.: 970-6210

Address: ~~5200 Patrick Henry Dr. MS 0210~~ Person Responsible: ~~Carol Knowles~~

City: Santa Clara, CA 95050

WHITE-Original CANARY-Office Copy
PINK-Building Inspection Copy GOLD-Accounting Copy

FP-296

No maps

XIDEX
DATA DISC

March 10, 1988

Lee Esquibel
Deputy Director
Santa Clara County Environmental Health Services
2200 Moorpark
San Jose, CA 95125

Dear Lee,

Please find enclosed the business plans for the three facilities of Xidex Corporation at 5200 and 5301 Patrick Henry Drive, and at 3544 Bassett St., all of Santa Clara.

If you have any questions or if there is any way in which I can be of service, please call me at (408) 998-3472.

Thank you for your time and cooperation.

Sincerely,

Bud Gawlik

Wm. Bud Gawlik
Facilities Manager
Xidex Corporation
5301 Patrick Henry Drive
Santa Clara, CA 95050

P.O.Box 58053
Santa Clara, Ca 95050
(408) 988-3472

5301 PHD

I. GENERAL INFORMATION

RECEIVED
MAR 21 1988
S.C.F.D.

Business Name XIDEX CORPORATION

Facility Street Address 5200 PATRICK HENRY DRIVE

Unit or Bldg No. _____ City SANTA CLARA ZIP 95050

Mailing Address P.O. BOX 58053 City SANTA CLARA

State CA ZIP 95050

Business Type MANUFACTURE OF DATA-STORAGE MEDIA Business Unique ID# Business Lisence #

SIC Code 3573 EPA ID # CAD 0635 41445

Persons Responsible for:

	Name	Title	Phone #
Application	Bud WM. GAWLIK	FACILITIES MANAGER	408 988 3472
Business	GENE KIRSCH	V.P. OF OPERATIONS	408 988 3472
Property	W.F. BATTON & CO., INC	(OWNER OF PROPERTY)	415 494 7471

Persons responsible for responding to an emergency after normal working hours:

Name	Title	Home Phone	Work Phone
SECURITY			408 988 3472

RECEIVED
MAR 14 1988
Office of
Hazardous
Materials

Why is this identical to 5301 PHD?

IV. ANNUAL INVENTORY OF HAZARDOUS MATERIALS

(A) NON-WASTE MATERIALS

(1) UN/NA# HAZARD CLASS	(2) CHEMICAL ABSTRACT NUMBER	(3) CHEMICAL NAME/COMPOUNDS AND COMPONENTS	(4) COMMON OR TRADE NAME	(5) MAX QUANTITY ON HAND IN LBS/GALS/CUFT	(6) COMMENT
9	26447-40-5 9016-87-9	DIPHENYLMETHANE-DIISOCYANATE DIPHENYLMETHANE-DIISOLIGIMEN	"A" COMPONENT	2500 lbs	Map Location
3	67-64-1	ACETONE	ACETONE	220 GAL	
3	108-88-3	TOLUENE (METHYL BENZENE)	DOW CORNING ADDITIVE 11	105 lbs	
9	75-69-4	TRICHLOROFLUOROMETHANE	"B" COMPONENT	2000 lbs	
8	5949-29-1 1336-21-6	CITRIC ACID AMMONIA	BRANSONIC ULTRASONIC	110 GAL	
	9016-45-9 62-56-6	NONAPHENAL ETHALATE ? THIOUREA <0.10%	OXIDE REMOVER		
9	108-94-1	CYCLOHEXANONE	CYCLOHEXANONE	605 GAL	
9	111-96-6	DIETHYLENE GLYCOL DIMETHYL ETHER	ANSUL, D-2	550 GAL	
9	25036-25-3	BIPHENOL A/ EPICHLOROHYDRINE RESIN	EPON (R) RESIN 1001 F	1600 lbs	
9	7440-48-4	COBALT (3%)	PFERRICO OXIDE 2560	1800 kg	convert to pounds
9	1309-37-1	IRON OXIDE	GAMMA FERRIC OXIDE 3080	3000 kg	
3	67-63-0	ISOPROPYL ALCOHOL	I.P.A.	330 gal	
3	78-93-3	METHYL ETHYL KETONE	M.E.K.	1100 gal	

IV. ANNUAL INVENTORY OF HAZARDOUS MATERIALS

(A) NON-WASTE MATERIALS

(1) UN HAZARD CLASS	(2) CHEMICAL ABSTRACT NUMBER	(3) CHEMICAL NAME/COMPOUNDS AND COMPONENTS	(4) COMMON OR TRADE NAME	(5) MAX QUANTITY ON HAND IN LBS/GALS/CUFT	(6) COMMENT
3	67-56-1 78-93-3	METHYL ALCOHOL METHYL ETHYL KETONE	VIDEOJET CLEANING SOLUTION	~~444 QTS~~ 111 gal	
3	~~107-98-2~~ 67-63-0	~~1-METHOXY 2-PROPANOL~~ ISOPROPYL ALCOHOL	VIDEOJET INK	~~72 QTS.~~	
9	9036-19-5	OCTYLPHENOXYPOLYETHOXYETHANOL	TRITON X-100	1430 [redacted] GAL	
9	76-13-1	TRICHLOROTRIFLUOROETHANE	FREON - TF	1265 GAL	

IV. ANNUAL INVENTORY OF HAZARDOUS MATERIALS

(B) HAZARDOUS WASTE

(1) CALIF WASTE CLASS NUMBER	(2) CHEMICAL ABSTRACT NUMBER	(3) CHEMICAL NAME/COMPOUNDS AND COMPONENTS	(4) COMMON OR TRADE NAME	(5) MAX QUANTITY ON HAND IN LBS/GALS/CUFT	(6) ANNUAL THRUPUT
343	78-93-3	METHYL ETHYL KETONE	MEK	550 GALS	12270 GALS
212	108-94-1 111-96-6 1309-37-1	PAINT MADE OF CYCLOHEXANONE DIETHYLENE GLYCOL DIMETHYL ETHER AND IRON OXIDE	"PAINT"	605 GALS	9438 GALS
212	108-94-1	CYCLOHEXANONE	CYCLOHEXANONE	165 GALS	3775 GALS
211	76-13-1	TRICHLOROTRIFLUOROETHANE ~~TRICHLOROTRIFLUOROETHANE~~	FREON	165 GALS	2831 GALS
352	SEE ABOVE	RAGS, PLASTICS, ETC. CONTAMINATED WITH WET "PAINT"	PAINTED SOLIDS	2000 LBS	69250 LBS

Removed 11/24/98

City of Santa Clara
Fire Department
Hazardous Materials Division
1177 Alviso Street
Santa Clara, CA 95050-4978
(408) 984-3084 FAX (408) 241-3006

REMOVE FROM SYSTEM

NO WASTES

INSPECTION REPORT FOR GENERATORS

Permit by Rule, Conditionally Authorized, and Conditionally Exempt Notifiers

FACILITY NAME: FUJITSU PERSONAL SYSTEMS INC. EPA ID NUMBER: _____
PHYSICAL ADDRESS: 5200 PATRICK HENRY DRIVE, SANTA CLARA
FACILITY CONTACT-NAME: GEORGE HAMMITT PHONE: 408-982-9500
SIC CODE(S): _____ _____ INSPECTION DATE: NOV. 24/98

GENERATOR: CESQG_____ SQG_____ LQG_____
NOTIFIED UNIT COUNT: PBR ___ CA ___ CESW ___ CESQT ___ CEL ___ CECL ___ TOTAL ___
CORRECT UNIT COUNT: PBR ___ CA ___ CESW ___ CESQT ___ CEL ___ CECL ___ TOTAL ___

This checklist and inspection report identify violations of state law regarding onsite treaters of hazardous waste, operating under an onsite permitting tier. This inspection verifies compliance with information provided on form 1772. It also covers generator requirements, although a separate checklist may be used for those requirements. A checkmark in the first column indicates a violation of the law, which is explained in more detail on the attached note sheets. The governing laws are the Health and Safety Code (HSC) and Title 22 of the California Code of Regulations (22 CCR).

Generator Standards:

NO OK

___ N/A 1. **Contingency plan** has been prepared (adequately minimizes releases, has alarm/communication system, lists emergency equipment, name and phone numbers of emergency coordinators).

___ ___ 2. **Written training documents** and records prepared for employees handling hazardous waste.

___ ___ 3. Meet **container management standards** (storage time limits, closed, labeled, compatibility, inspected weekly, in good condition, with ignitables/reactives 50 feet from property line).

___ ___ 4. Meet **tank management standards** (either secondary containment or integrity assessments, plus storage time limits, labeled, compatibility, inspected daily, in good condition, with ignitables/reactives 50 feet from property line).

___ ___ 5. **Hazardous waste determination** (hazardous by testing the waste or applying knowledge of characteristics).

___ ___ 6. **EPA identification number** (generator has an EPA identification number).**

___ ___ 7. **Aisle space** is maintained to allow for the unobstructed movement of personnel, fire protection equipment, spill control equipment, and the decontamination equipment in an emergency.

___ ___ 8. **Accumulation of hazardous waste** is appropriate for the time allowed. (LQG < 90 days; SQG 180 or 270 days or less if the waste for transportation > 200 miles, and waste on site < 6000kg at any time; CESQG, 90 days clock starts when 100 kg of hazardous waste of 1 kg of acutely hazardous waste is accumulated).

___ ___ 9. **Manifest standards** (copies of manifest on site for at least 3 years, within 30 days of each shipment submit to the Department a legible copy of each manifest used, generator and waste sections completed, transported hazardous waste without/incomplete manifest).

___ ___ 10. **Inspection standards** for hazardous waste accumulation area (container-weekly and tanks-daily).

NO OK

___ N/A 11. **Milk run standards** (generator has retained copies of shipping paper/receipt for 3 years, retained copies of used oil/oil filters/photo processing waste/antifreeze/automotive cleaning parts solvents receipts for 3 years).

___ ___ 12. **Land disposal restrictions standards** (LDR), (generator has determined whether waste is restricted for land disposal, notified for LDR waste, retained LDR notification/certification).

___ ___ 13. **Biennial Report/exception report** submitted to the Department and retained for 3 years. (Biennial report for LQG generators of RCRA hazardous waste only)

Treatment Items - Facility Wide: *(Facility must submit a revised Form 1772 to correct errors or omissions.)*

___ ___ 14. All **units** under PBR, CA, and CE are properly indicated on Form DTSC 1772. (Add any new units with unit sheets or correct tier on the unit sheet.)

___ ___ 15. All generator **identification** information on Form DTSC 1772 is correct.

___ ___ 16. The submitted **plot plan/map** adequately shows the location of all regulated units.

___ ___ 17. There are records documenting compliance with sewer agency **pretreatment standards** and industrial waste discharge requirements, where applicable.

For CA or PBR notifiers:

___ ✓ 18. The generator has an annual **waste minimization** certification. (PBR submit with renewals.)

* CESQG: Generating < 100 kg of hazardous waste or 1 kg of acutely hazardous waste in a calendar month.
SQG: Generating < 1000 kg of hazardous waste in a calendar month.
LQG: Generating > 1000 kg of hazardous waste in a calendar month.

** No EPA I.D. number required for generators who generate < 100 kg/month of hazardous waste and are engaged solely in used oil solvents milk run activities in California.

City of Santa Clara
Fire Department
Hazardous Materials Division
1177 Alviso Street
Santa Clara, CA 95050-4978
(408) 984-3084 FAX (408) 241-3006

INSPECTION REPORT FOR GENERATORS

Permit by Rule, Conditionally Authorized, and Conditionally Exempt Notifiers
UNIT SHEET

Complete one unit sheet for each unit either listed in the notification or identified during the inspection.

Unit Number:_____ **Unit Name:** _____
Notified Tier: _____ **Correct Tier:**_____

Notified Device Count: **Tanks**_____ **Containers** _____
Correct Device Count: **Tanks**_____ **Containers** _____

For all Units:

NO	OK		
___	N/A	19.	All hazardous wastes treated are **generated onsite**.
___	___	20.	The unit notification information is accurate as to the number of **tank(s) or container(s).**
___	___	21.	The estimated notification **monthly treatment volume** is appropriate for the indicated tier.
___	___	22.	The **waste identification/evaluation** is appropriate for the tier.
___	___	23.	The **wastestream(s)** given on the notification form are appropriate for the tier.
___	___	24.	The **treatment process(es)** given on the notification form are appropriate for the tier.
___	___	25.	The **residuals management** information on the form is correct and documented for the unit.
___	___	26.	The indicated **basis for not needing a federal permit** on the notification form is correct.
___	___	27.	There are **written operating instructions** and a record of the dates, volumes, residual management, and types of wastes treated in the unit.
___	___	28.	There is a **written inspection schedule** (containers - weekly and tanks - daily).
___	___	29.	There is a **written inspection log** of the inspections conducted.
___	___	30.	If the unit has been closed, the generator has **notified** DTSC and the local agency **of the closure**.

For each CA or PBR unit:

___	___	31.	The generator has **secondary containment** for treatment in containers (due on 1/1/98).
___	___	32.	**Financial Assurance** for closure cost estimates (due 10/1/96 and submit 1/1/97).
___	___	33.	**Phase I Environmental Assessment Checklist** (due 1/1/97) or within one year of the date when facility is authorized to operate, whichever is later.

For each PBR unit:

___	___	34.	The **exterior of each unit is marked** with name of owner/operator, facility identification number and an individual serial number.
___	___	35.	There is a written **waste analysis plan**.
___	✓	36.	There are **waste analysis records**.
___	___	37.	There is a written **closure plan** for the unit.

Unit Comments/Observations: (If this is a unit that was not included on the notification form, the violation is operating without a permit - HSC 25201(a).)

City of Santa Clara
Fire Department
Hazardous Materials Division
1177 Alviso Street
Santa Clara, CA 95050-4978
(408) 984-3084 FAX (408) 241-3006

Onsite Recycling: *Only answer if this facility recycles ≥ 100 kg/month of hazardous waste onsite.*

NO	OK	
___	N/A	38. The appropriate **local agency has been notified**.
___	___	39. All activities claimed under the onsite **recycling exemption or exclusions are appropriate**.

Releases:

YES	NO	
___	___	40. Within the last three years, were there **any unauthorized or accidental releases to the environment** of hazardous waste or hazardous waste constituents **from onsite treatment units**?
___	___	41. Within the last three years, were there any **unauthorized or accidental releases to the environment** of hazardous waste or hazardous waste constituents **from any location at this facility**?

For purposes of a Tiered permitting inspection, a release to the environment is unauthorized or accidental and does not include spills contained within containment systems.

Source Reduction: *Only answer if this facility generates ≥ 12,000 kg/year of hazardous waste onsite.*

___	___	42. Generator is subject to **SB14** and has failed to prepare and retain current **source reduction documents**, as applicable, or make them available to the inspector within (5) days.
___	___	43. **Source Reduction Evaluation Review and Plan** failed to contain, at a minimum, the following five required elements: certification, amounts of wastes generated, process description, block diagrams, and implementation schedule of selected source reduction measures.

This report may identify conditions observed this date that are alleged to be violations of one or more sections of the California Health and Safety Code (HSC) or the California Code of Regulations, Title 22 (22 CCR) relating to the management of hazardous waste. The violations may be described in more detail on the attached note sheets. If any violations are noted, the facility is required to submit a signed Certification of Return to Compliance within 30 days to the Santa Clara Fire Department, Hazardous Materials Division. The Fire Department may reinspect, at any time, to verify compliance with this Notice to Comply.

Inspector(s):

Lead Inspector:
Signature: Angela Sullivan
Print Name: ANGELA SULLIVAN
Title: HAZARDOUS MATERIALS SPECIALIST
Agency: SANTA CLARA FIRE DEPT.
Phone Number: 408-984-5173 x44

Other Inspector:
Signature : ___
Print Name: ___
Title: ___
Agency: ___
Phone Number: ___

Facility Representative :
Your signature acknowledges receipt of this report and does not imply agreement with the findings.

Signature: ___ Print Name: ___

Title: FACIL & Comm Mgr. Date: NOV. 24/98

City of Santa Clara
Fire Department
Hazardous Materials Division
1177 Alviso Street
Santa Clara, CA 95050-4978
(408) 984-3084 FAX (408) 241-3006

INSPECTION REPORT FOR GENERATORS,
Permit by Rule, Conditionally Authorized, and Conditionally Exempt Notifiers
NOTE SHEET

This sheet includes inspector observations and expands on the violations identified on the checklist (by number). In some cases, it indicates how the facility should correct the violations.

Consent given by:

Representatives Present:

OBSERVATIONS: 1) There are no hazardous wastes onsite. Remove this business from the hazardous waste database. (fire + finance) I will

Angela Sullivan
11-24-98

BL# 30504

RECEIVED
DEC 08 2000
S.C.F.D.

UNIFIED PROGRAM CONSOLIDATED FORM

FACILITY INFORMATION

BUSINESS ACTIVITIES

I. FACILITY IDENTIFICATION

FACILITY ID # 4 3 [ ] 0 1 0 [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] 1

EPA ID # (Hazardous Waste Only)

BUSINESS NAME (Same as Facility Name of DBA-Doing Business As) 3

FUJITSU SYSTEMS BUSINESS OF AMERICA INC.

5200 PATRICK HENRY

II. ACTIVITIES DECLARATION

NOTE: If you check YES to any part of this list, please submit the Business Owner/Operator Identification page (OES Form 2730).

Does your facility...	If Yes, please complete these pages of the UPCF....	
A. HAZARDOUS MATERIALS Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	☒ YES* ☐ NO 4 If "YES," see note under "E" below.	HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION (OES 2731)* OR NON-WASTE HAZARDOUS MATERIALS INVENTORY STATEMENT*
B. UNDERGROUND STORAGE TANKS (USTs)		UST FACILITY (Formerly SWRCB Form A)
1. Own or operate underground storage tanks?	☐ YES ☒ NO 5	UST TANK (one page per tank) (Formerly Form B)
2. Intend to upgrade existing or install new USTs?	☐ YES ☒ NO 6	UST FACILITY UST TANK (one per tank) UST INSTALLATION - CERTIFICATE OF COMPLIANCE (one page per tank) (Formerly Form C)
3. Need to report closing a UST?	☐ YES ☒ NO 7	UST TANK (closure portion –one page per tank)
C. ABOVE GROUND PETROLEUM STORAGE TANKS (ASTs) Own or operate ASTs above these thresholds: ---any tank capacity is greater than 660 gallons, or ---the total capacity for the facility is greater than 1,320 gallons?	☐ YES ☐ NO 8	NO FORM REQUIRED TO CUPAs
D. HAZARDOUS WASTE		
1. Generate hazardous waste?	☐ YES ☒ NO 9	EPA ID NUMBER – provide at the top of this page
2. Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)?	☐ YES ☒ NO 10	RECYCLABLE MATERIALS REPORT (one per recycler)
3. Treat hazardous waste on site?	☐ YES ☒ NO 11	ONSITE HAZARDOUS WASTE TREATMENT – FACILITY (Formerly DTSC Forms 1772) ONSITE HAZARDOUS WASTE TREATMENT – UNIT (one page per unit) (Formerly DTSC Forms 1772 A,B,C,D and L)
4. Treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	☐ YES ☒ NO 12	CERTIFICATION OF FINANCIAL ASSURANCE (Formerly DTSC Form 1232)
5. Consolidate hazardous waste generated at a remote site?	☐ YES ☒ NO 13	REMOTE WASTE / CONSOLIDATION SITE ANNUAL NOTIFICATION (Formerly DTSC Form 1196)
6. Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned onsite?	☐ YES ☒ NO 14	HAZARDOUS WASTE TANK CLOSURE CERTIFICATION (Formerly DTSC Form 1249)

E. LOCAL REQUIREMENTS 15

(You may also be required to provide additional information by your CUPA or local agency.)

*If you are required to fill out a hazardous materials inventory statement (YES to A. HAZARDOUS MATERIALS), please follow the directions on the sheet entitled "HAZARDOUS MATERIALS BUSINESS PLAN INFORMATION SHEET," and fill out all the forms required by that document.

UNIFIED PROGRAM CONSOLIDATED FORM

FACILITY INFORMATION Bl# 30504

BUSINESS OWNER/OPERATOR IDENTIFICATION

Page __ of __

I. IDENTIFICATION

FACILITY ID# 4 3 0 1 0 (1)	BEGINNING DATE (100)	ENDING DATE (101)	
BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) (3): Fujitsu Systems Business of America		BUSINESS PHONE (102): 408-988-8012	
BUSINESS SITE ADDRESS (103): 5200 Patrick Henry Drive			
CITY (104): Santa Clara	CA	ZIP CODE (105): 95054	
DUN & BRADSTREET (106): 60-559-3979		SIC CODE (4 digit #) (107): 7370	
COUNTY (108): Santa Clara.			
BUSINESS OPERATOR NAME (109): SAME AS ABOVE		BUSINESS OPERATOR PHONE (110): 408-988-8012	

II. BUSINESS OWNER

OWNER NAME (111): Fujitsu Limited (Subsidiary).		OWNER PHONE (112):
OWNER MAILING ADDRESS (113):		
CITY (114):	STATE (115):	ZIP CODE (116):

III. ENVIRONMENTAL CONTACT

CONTACT NAME (117): Bill Buettner	CONTACT PHONE (118): 408-654-2006
CONTACT MAILING ADDRESS (119): 5200 Patrick Henry Drive	
CITY (120): Santa Clara	STATE (121): CA — ZIP CODE (122): 95054.

IV. EMERGENCY CONTACTS

-PRIMARY-	-SECONDARY-
NAME (123): Bill Buettner	NAME (128): George Hammitt
TITLE (124): Director, Administration	TITLE (129): Facilities Manager
BUSINESS PHONE (125): 408-654-2006	BUSINESS PHONE (130): 408-982-9448
24-HOUR PHONE (126):	24-HOUR PHONE (131):
PAGER # (127):	PAGER # (32):

ADDITIONAL LOCALLY COLLECTED INFORMATION:

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR ~~DESIGNATED REPRESENTATIVE~~: Bill Buettner	DATE (134): 11/28/00	NAME OF DOCUMENT PREPARER (135): SAME
NAME OF SIGNER (print) (136): Bill Buettner	TITLE OF SIGNER (137): Director, Administration	

02-15-00
<INVENTORY.RPT>

Santa Clara Fire Dept. Hazmat System
Hazardous Materials Inventory Statement
Last Inventory Date 10-12-99

FUJITSU SYSTEMS BUSINESS OF AMER.
5200 PATRICK HENRY
988-8012

Bus. Lic. No. : 30504
Sta. : 10 Zone : 1
Complex Code : ----

(1) DOT Class	(2) Ca Wst Cod	(3)/ (4) Trade (Common) Name/ Chemical Names	(5) C. A. S. #	(6) Ph St	(7) V / W	(8) Quantity on hand Max	(8) Quantity on hand Avg	(9) Max. Cntr Size	(10) Annual Thru put	(11) UOM	(12) Days on Site	(13) Storage Typ	(13) Storage Pre	(13) Storage Tmp	(14) SARA Clss	(15) Site Map Loc
CL		DIESEL		LP	V	500	500	500		GAL	365	A	1	4	FD	
		DODECANE	112-40-3													

Signature _____

Date _____

PERMIT

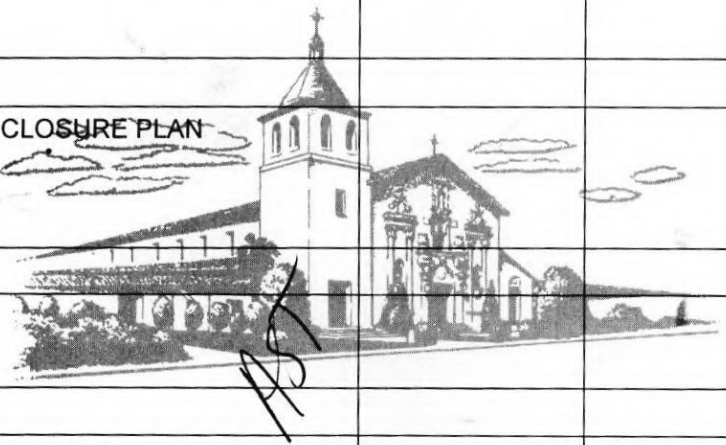
SANTA CLARA FIRE DEPARTMENT

Address:	5200 Patrick Henry Equipment Pad	Plan Check # P	99-755
Owner:	FUJITSU	Station #	10

Date:	8/23/99	Fee: $	125.00
Date of Event:		Check # :	232

Permission is hereby given to install the following fire protection equipment or perform activities, which are within the scope of this permit. All work related to this permit shall be performed according to the requirements set forth in the Santa Clara Municipal Fire and Environmental Code and all other applicable regulations or standards.

	FIRE PROTECTION EQUIPMENT / ACTIVITY	DATE	FINAL APPROVAL BY
	AUTOMATIC FIRE SPRINKLERS: Underground Fire Protection System		
	AUTOMATIC FIRE SPRINKLERS: Overhead System		
	BUILDING REVIEW		
	FIRE EXTINGUISHING SYSTEM		
	ALARM		
	FIREWORKS DISPLAY		
	HAZARDOUS MATERIALS CLOSURE PLAN ( ) Above Exempt Amounts ( ) Below Exempt Amounts		
	HOOD AND DUCT		
	MISCELLANEOUS		
	STANDPIPE		
X	TANK ( ) Removal (X) Installation Install one 500 gallon dielsel tank for emergency generator	11/9/99	
	TENT		



Applicant:	GARY H. KIDGELL	Phone Number:	408-244-5703
Address:	6154 Chesbro Ave.	Person Responsible:	Gary H. Kidgell
City/State/Zip/	San Jose, CA. 95123	White-Original Canary-Office Pink-Secretary Gold-Accounting	

FP296 Rev 5/99

PERMIT

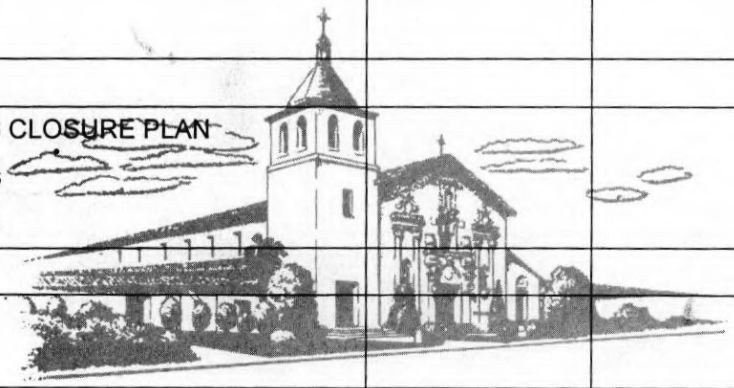
SANTA CLARA FIRE DEPARTMENT

Address:	5200 Patrick Henry Equipment Pad	Plan Check # P	99-755
Owner:	FUJITSU	Station #	10

Date:	8/23/99	Fee: $	125.00
Date of Event:		Check # :	232

Permission is hereby given to install the following fire protection equipment or perform activities, which are within the scope of this permit. All work related to this permit shall be performed according to the requirements set forth in the Santa Clara Municipal Fire and Environmental Code and all other applicable regulations or standards.

	FIRE PROTECTION EQUIPMENT / ACTIVITY	DATE	FINAL APPROVAL BY
	AUTOMATIC FIRE SPRINKLERS: Underground Fire Protection System		
	AUTOMATIC FIRE SPRINKLERS: Overhead System		
	BUILDING REVIEW		
	FIRE EXTINGUISHING SYSTEM		
	ALARM		
	FIREWORKS DISPLAY		
	HAZARDOUS MATERIALS CLOSURE PLAN ( ) Above Exempt Amounts ( ) Below Exempt Amounts		
	HOOD AND DUCT		
	MISCELLANEOUS		
	STANDPIPE		
X	TANK ( ) Removal (X) Installation Install one 500 gallon dielsel tank for emergency generator	11/9/99	
	TENT		



Applicant:	GARY H. KIDGELL	Phone Number:	408-244-5703
Address:	6154 Chesbro Ave.	Person Responsible:	Gary H. Kidgell
City/State/Zip/	San Jose, CA. 95123	White-Original Canary-Office Pink-Secretary Gold-Accounting	

FP296 Rev 5/99

EXHIBIT 12

RECEIVED
OCT 12 1999
S.C.F.D.

PR14-755

Hazardous Material Business Plan

For

Fujitsu Systems Business of America

5200 Patrick Henry Drive
Santa Clara, CA 95054

Prepared By,

GK ASSOCIATES
PERMIT EXPEDITING SPECIALISTS • HAZARDOUS MATERIAL & BUILDING CONSULTANTS
PROJECT COORDINATION ASSISTANCE
(408)227-7750

HAZARDOUS MATERIALS BUSINESS PLAN

Section A - General Information

For Use by All Jurisdictions Within the County of Santa Clara

30504

1. Facility Information: *(Note: Print or type all information. Instructions are located on the other side of this page.)*

Business Name: **Fujitsu Systems Business of America** Business Phone: **(408) 988-8012**

Site Address: **5200 Patrick Henry Drive**

City: **Santa Clara** State: **CA** Zip: **95054**

Dunn & Bradstreet No.: **60-559-3979** Primary SIC Code *(4 digit)*: **7361**

Operator Name: **Fujitsu Systems Business of America** Operator Phone: ( ) **988-8012**

2. Business Owner Information:

Owner Name: **Fujitsu Corporation** Owner Phone: **(408) 988-8012**

Owner Mailing Address: **5200 Patrick Henry Drive**
If different from site address

City: **Santa Clara** State: **CA** Zip: **95054**

3. Environmental Contact:

Contact Name: **Bill Buettner** Contact Phone: **(408) 654-2006** ext.

Contact Mailing Address: **5200 Patrick Henry Drive**
If different from site address

City: **Santa Clara** State: **CA** Zip: **95054**

4. Emergency Contacts:

Primary Emergency Coordinator	Secondary Emergency Coordinator
Name: **Bill Buettner**	Name: **George Hammitt**
Title: **Director, Administration**	Title: **Manager, Facilities**
Business Phone: **(408) 654-2006** ext.	Business Phone: **(408) 982-9500** ext.
24 Hour Phone:	24 Hour Phone:
Pager No.:	Pager No.:

☐ *(Check box only if applicable)* Additional Emergency Coordinators are listed on page of this HMBP.

5. Acutely Hazardous Materials (AHMs):

Are AHMs Present On-Site? ☐ Yes; ☒ No *(Note: If yes, contact your local agency regarding an AHM Registration appendix to the HMBP.)*

6. Additional Required Information:

EPA ID No.: **N/A** Principal Type of Business: **Office Administration**

Billing Address: **Same** City: State: Zip:
If different from owner mailing address

Industrial Waste Discharge Contact: **None** Phone No.: ( ) ext:

Property Owner: **William F. Batton** Phone No.: ( )

Facility Hours of Operation: **8-5pm** No. of Employees Per Shift: Day: **61**; Swing ; Grave

7. **OWNER/OPERATOR CERTIFICATION: I am an officer at the level of Vice-President, General Partner, Sole Proprietor, or higher. I hereby certify under penalty of law that this information was obtained in accordance with applicable requirements. Based upon my inquiry of those individuals responsible for obtaining the information reported herein, I believe that the submitted information is true, accurate, and complete.**

Name of HMBP Document Preparer *(Print)*: **GK Associates** Title: **Consultant**

Signature of Owner/Operator: Bill Buettner Date: 10/11/98.

Non-Waste Hazardous Materials Inventory Statement

For Use by All Jurisdictions Within the County of Santa Clara

Site Address: **5200 Patrick Henry**

Date: **9/24/99**

Agency Use Only	1. LC	2. Common/Trade Name	3. Chemical Name Components & Concentration	4. Chemical Abstract Service No.	5. Physical State	6. Quantity Stored Max.	Average	Lgst. Cont.	7. Units	8. Days On Site	9. Storage Codes Cont. Type(s)	Pressure	Temp.	10. SARA Hazard Class(es)	11. IW
		Diesel	☒ Same as Column 2.		☒ pure ☐ mixture ☐ solid ☒ liquid ☐ gas	**500**	**500**	**500**	☒ gal. ☐ lbs. ☐ cu. ft. ☐ µ cur.	**365**	**A**	☒ amb. ☐ > amb. ☐ < amb.	☒ amb. ☐ > amb. ☐ < amb. ☐ cryo.	☒ fire ☒ pressure ☐ reactive ☐ immediate ☐ delayed	☐
			☐ Same as Column 2.		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas				☐ gal. ☐ lbs. ☐ cu. ft. ☐ µ cur.			☐ amb. ☐ > amb. ☐ < amb.	☐ amb. ☐ > amb. ☐ < amb. ☐ cryo.	☐ fire ☐ pressure ☐ reactive ☐ immediate ☐ delayed	☐
			☐ Same as Column 2.		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas				☐ gal. ☐ lbs. ☐ cu. ft. ☐ µ cur.			☐ amb. ☐ > amb. ☐ < amb.	☐ amb. ☐ > amb. ☐ < amb. ☐ cryo.	☐ fire ☐ pressure ☐ reactive ☐ immediate ☐ delayed	☐
			☐ Same as Column 2.		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas				☐ gal. ☐ lbs. ☐ cu. ft. ☐ µ cur.			☐ amb. ☐ > amb. ☐ < amb.	☐ amb. ☐ > amb. ☐ < amb. ☐ cryo.	☐ fire ☐ pressure ☐ reactive ☐ immediate ☐ delayed	☐
			☐ Same as Column 2.		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas				☐ gal. ☐ lbs. ☐ cu. ft. ☐ µ cur.			☐ amb. ☐ > amb. ☐ < amb.	☐ amb. ☐ > amb. ☐ < amb. ☐ cryo.	☐ fire ☐ pressure ☐ reactive ☐ immediate ☐ delayed	☐
			☐ Same as Column 2.		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas				☐ gal. ☐ lbs. ☐ cu. ft. ☐ µ cur.			☐ amb. ☐ > amb. ☐ < amb.	☐ amb. ☐ > amb. ☐ < amb. ☐ cryo.	☐ fire ☐ pressure ☐ reactive ☐ immediate ☐ delayed	☐
			☐ Same as Column 2.		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas				☐ gal. ☐ lbs. ☐ cu. ft. ☐ µ cur.			☐ amb. ☐ > amb. ☐ < amb.	☐ amb. ☐ > amb. ☐ < amb. ☐ cryo.	☐ fire ☐ pressure ☐ reactive ☐ immediate ☐ delayed	☐
			☐ Same as Column 2.		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas				☐ gal. ☐ lbs. ☐ cu. ft. ☐ µ cur.			☐ amb. ☐ > amb. ☐ < amb.	☐ amb. ☐ > amb. ☐ < amb. ☐ cryo.	☐ fire ☐ pressure ☐ reactive ☐ immediate ☐ delayed	☐
			☐ Same as Column 2.		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas				☐ gal. ☐ lbs. ☐ cu. ft. ☐ µ cur.			☐ amb. ☐ > amb. ☐ < amb.	☐ amb. ☐ > amb. ☐ < amb. ☐ cryo.	☐ fire ☐ pressure ☐ reactive ☐ immediate ☐ delayed	☐

Fujitsu Systems Business of America

Site Plan

5200 PATRICK HENRY DR.

✓BL# 114735 BL # 114735

C 03-30-10 JN

UNIDOCS
FACILITY INFORMATION
BUSINESS ACTIVITIES PAGE

02-19-10 JN ✓

I. FACILITY IDENTIFICATION

FACILITY ID # *(Agency Use Only)*	– – 7 0 1 7 7 6	1.
EPA ID # (Hazardous Waste Only)	CAD094979135	2.
BUSINESS NAME *(Same as Facility Name or DBA - Doing Business As)*	Coherent, Inc,	3.
BUSINESS SITE ADDRESS	5200 Patrick Henry Drive	103.
BUSINESS SITE CITY	Santa Clara	104.
	CA	
ZIP CODE	95054	105.

II. ACTIVITIES DECLARATION

NOTE: If you check YES to any part of this list, please submit the Business Owner/Operator Identification page.

Does your facility...	If Yes, please complete these pages of the UPCF...	
A. HAZARDOUS MATERIALS Have on site (for any purpose) at any one time, hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	☒ YES ☐ NO 4.	HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION
B. REGULATED SUBSTANCES Have Regulated Substances stored onsite in quantities greater than the threshold quantities established by the California Accidental Release Prevention Program (CalARP)?	☐ YES ☒ NO 4a.	Coordinate with your local agency responsible for CalARP.
C. UNDERGROUND STORAGE TANKS (USTs) Own or operate underground storage tanks?	☐ YES ☒ NO 5.	UST OPERATING PERMIT APPLICATION – FACILITY INFORMATION UST OPERATING PERMIT APPLICATION – TANK INFORMATION
D. ABOVE GROUND PETROLEUM STORAGE Own or operate ASTs above these thresholds: Store greater than 1,320 gallons of petroleum products (new or used) in aboveground tanks or containers?	☐ YES ☒ NO 8.	No form required to CUPAs
E. HAZARDOUS WASTE Generate hazardous waste?	☐ YES ☒ NO 9.	EPA ID NUMBER – provide at top of this page
Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC §25143.2)?	☐ YES ☒ NO 10.	RECYCLABLE MATERIALS REPORT (one per recycler)
Treat hazardous waste onsite?	☐ YES ☒ NO 11.	ONSITE HAZARDOUS WASTE TREATMENT NOTIFICATION – FACILITY PAGE ONSITE HAZARDOUS WASTE TREATMENT NOTIFICATION – UNIT PAGE (one page per unit)
Perform treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	☐ YES ☒ NO 12.	CERTIFICATION OF FINANCIAL ASSURANCE
Consolidate hazardous waste generated at a remote site?	☐ YES ☒ NO 13.	REMOTE WASTE CONSOLIDATION SITE ANNUAL NOTIFICATION
Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned onsite?	☐ YES ☒ NO 14.	HAZARDOUS WASTE TANK CLOSURE CERTIFICATION
Generate in any single calendar month 1,000 kilograms (kg) (2,200 pounds) or more of federal RCRA hazardous waste, or generate in any single calendar month, or accumulate at any time, 1 kg (2.2 pounds) of RCRA acute hazardous waste; or generate or accumulate at any time more then 100 kg (220 pounds) of spill cleanup materials contaminated with RCRA acute hazardous waste?	☐ YES ☒ NO 14a.	Obtain federal EPA ID Number, file Biennial Report (EPA Form 8700-13A/B), and satisfy requirements for RCRA Large Quantity Generator.
Serve as a Household Hazardous Waste (HHW) Collection site?	☐ YES ☒ NO 14b.	See CUPA for required forms.

F. LOCAL REQUIREMENTS (You may also be required to provide additional information by your CUPA or local agency.) 15.

RECEIVED
FEB 16 2010
SCFD

5300 Patrick Henry

UNIDOCS
FACILITY INFORMATION

BUSINESS OWNER/OPERATOR IDENTIFICATION PAGE

I. IDENTIFICATION

FACILITY ID # *(Agency Use Only)* 1.	BEGINNING DATE 100. 2/5/2010	ENDING DATE 101. 2/5/2011	
BUSINESS NAME *(Same as Facility Name or DBA – Doing Business As)* 3. Coherent, Inc.		BUSINESS PHONE 102. (408) 764-4000	
BUSINESS SITE ADDRESS 103. 5200 Patrick Henry Drive		BUSINESS FAX 102a. (408) 764-4811	
BUSINESS SITE CITY 104. Santa Clara	CA	ZIP CODE 105. 95054	COUNTY 108. Santa Clara
DUN & BRADSTREET 106. 043719210	PRIMARY SIC 107. 3699	PRIMARY NAICS 107a.	
BUSINESS MAILING ADDRESS 108a. 5100 Patrick Henry Drive			
BUSINESS MAILING CITY 108b. Santa Clara	STATE 108c. CA	ZIP CODE 108d. 95054	
BUSINESS OPERATOR NAME 109. Coherent, Inc.		BUSINESS OPERATOR PHONE 110. (408) 764-4000	

II. BUSINESS OWNER

OWNER NAME 111. Coherent, Inc.		OWNER PHONE 112. (408) 764-4000
OWNER MAILING ADDRESS 113. 5100 Patrick Henry Drive		
OWNER MAILING CITY 114. Santa Clara	STATE 115. CA	ZIP CODE 116. 95054

III. ENVIRONMENTAL CONTACT

CONTACT NAME 117. Candace Soles		CONTACT PHONE 118. (408) 764-4415
CONTACT MAILING ADDRESS 119. 5100 Patrick Henry Drive		CONTACT EMAIL 119a. candace.soles@coherent.com
CONTACT MAILING CITY 120. Santa Clara	STATE 121. CA	ZIP CODE 122. 95054

IV. EMERGENCY CONTACTS

-PRIMARY-	-SECONDARY-
NAME 123. Willy Pascua	NAME 128. Candace Soles
TITLE 124. EH&S Engineer	TITLE 129. EH&S Manager
BUSINESS PHONE 125. (408) 764-4601	BUSINESS PHONE 130. (408) 764-4415
24-HOUR PHONE 126.	24-HOUR PHONE 131.
PAGER # 127. ( ) NA	PAGER # 132. ( ) NA

ADDITIONAL LOCALLY COLLECTED INFORMATION: 133.

Billing Address: 5100 Patrick Henry Drive, Santa Clara, CA 95054

Property Owner: South Bay Development, David Andris (site contact) Phone No.: (408) 796-0032

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE Candace Soles	DATE 134. 2/8/10	NAME OF DOCUMENT PREPARER 135. Candace Soles
NAME OF SIGNER (print) 136. Candace Soles	TITLE OF SIGNER 137. Corporate EH&S Manager	

Non-Waste Hazardous Materials Inventory Statement

For use by Unidocs Member Agencies or where approved by your Local Jurisdiction

Date: 2/5/2010

Business Name: Coherent, Inc. (Same as Facility Name)

Type of Report on This Page: ☒ Add; ☐ Delete; ☐ Revise

Page 3 of 9 (One page per building or area)

Chemical Location: (Building/Storage Area)

EPCRA Confidential Location? ☒ Yes; ☒ No
Trade Secret Information? ☐ Yes; ☒ No

Facility ID # (Agency Use Only)

1. Haz. Class	2. Map and Grid or Location Code	3. Common Name	4. Hazardous Components (For mixtures only) Chemical Name	% Wt.	EHS	CAS No.	5. Type and Physical State	6. Quantities Max. Daily	Average Daily	Largest Cont.	7. Units	8. Storage Codes Storage Pressure	Storage Temp.	9. Hazard Categories
CL		Diesel Fuel			☐		☒ pure ☐ mixture	500	475	500	☒ gallons ☐ pounds ☐ cu. feet ☐ tons	☒ ambient ☐ > amb. ☐ < amb.	☒ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☒ acute health ☐ chronic health ☐ radioactive
		CAS No.: 68476-34-6 ☐ EHS			☐		☐ solid ☒ liquid ☐ gas	Curies: (If radioactive)	Days On Site: 365	Storage Container:* R				
					☐		☐ pure ☐ mixture				☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb.	☐ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		CAS No.: ☐ EHS			☐		☐ solid ☐ liquid ☐ gas	Curies: (If radioactive)	Days On Site:	Storage Container:*				
					☐		☐ pure ☐ mixture				☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb.	☐ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		CAS No.: ☐ EHS			☐		☐ solid ☐ liquid ☐ gas	Curies: (If radioactive)	Days On Site:	Storage Container:*				
					☐		☐ pure ☐ mixture				☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb.	☐ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		CAS No.: ☐ EHS			☐		☐ solid ☐ liquid ☐ gas	Curies: (If radioactive)	Days On Site:	Storage Container:*				
					☐		☐ pure ☐ mixture				☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb.	☐ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		CAS No.: ☐ EHS			☐		☐ solid ☐ liquid ☐ gas	Curies: (If radioactive)	Days On Site:	Storage Container:*				
					☐		☐ pure ☐ mixture				☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb.	☐ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		CAS No.: ☐ EHS			☐		☐ solid ☐ liquid ☐ gas	Curies: (If radioactive)	Days On Site:	Storage Container:*				

* Storage Container Codes

Code	Storage Type	Code	Storage Type	Code	Storage Type	Code	Storage Type	Code	Storage Type	Code	Storage Type
A	Aboveground Tank	D	Steel Drum	G	Carboy	J	Bag	M	Glass Bottle or Jug	P	Tank Wagon
B	Belowground Tank	E	Plastic/Non-metallic Drum	H	Silo	K	Box	N	Plastic Bottle or Jug	Q	Rail Car
C	Tank Inside Building	F	Can	I	Fiber Drum	L	Cylinder	O	Tote Bin	R	Other

If EPCRA, sign below:

Emergency Response/Contingency Plan

(Hazardous Materials Business Plan Module)

Authority Cited: HSC§ 25504(b); 19 CCR §2731; 22 CCR §66262.34(a)(4)

All facilities that handle hazardous materials in HMBP quantities must have a written emergency response plan. In addition, facilities that generate 1,000 kilograms or more of hazardous waste (or more than 1 kilogram of acutely hazardous waste or 100 kilograms of debris resulting from the spill of an acutely hazardous waste) per month, or accumulate more than 6,000 kilograms of hazardous waste on-site at any one time, must prepare a hazardous waste contingency plan. Because the requirements are similar, they have been combined in a single document, provided below, for your convenience. This plan is a required module of the Hazardous Materials Business Plan (HMBP). **If you already have a plan that meets these requirements, you should not complete the blank plan, below, but you must include a copy of your existing plan as part of your HMBP.**

This site-specific Emergency Response/Contingency Plan is the facility's plan for dealing with emergencies and shall be implemented immediately whenever there is a fire, explosion, or release of hazardous materials that could threaten human health and/or the environment. **At least one copy of the plan shall be maintained at the facility for use in the event of an emergency and for inspection by the local agency.** A copy of the plan and any revisions must be provided to any contractor, hospital, or agency with whom special (i.e., contractual) emergency services arrangements have been made *(see section 3, below)*.

1. Evacuation Plan:

a. The following alarm signal(s) will be used to begin evacuation of the facility *(check all that apply)*:

☐ Bells; ☐ Horns/Sirens; ☒ Verbal *(i.e., shouting)*; ☐ Other *(specify* _____

b. ☒ Evacuation map is prominently displayed throughout the facility.

Note: A properly completed HMBP Site Plan satisfies contingency plan map requirements. This drawing (or any other drawing that shows primary and alternate evacuation routes, emergency exits, and primary and alternate staging areas) must be prominently posted throughout the facility in locations where it will be visible to employees and visitors.

2. a. Emergency Contacts*:

Fire/Police/Ambulance Phone No.: **911**

State Office of Emergency Services Phone No.: **(800) 852-7550**

b. Post-Incident Contacts*:

Certified Unified Program Agency (CUPA) Phone No.: **(408) 615-4960**

Local Hazardous Materials Program Phone No.: **(408) 615-4900**

California EPA Department of Toxic Substances Control Phone No.: **(800) 698-6942**

Cal-OSHA Division of Occupational Safety and Health Phone No.: **(510) 794-2521**

Air Quality Management District Phone No.: **(415) 749-5000**

Regional Water Quality Control Board Phone No.: **(510) 622-2300**

*** Phone numbers for agencies in Unidocs Member Agency geographic jurisdictions are available at www.unidocs.org.**

c. Emergency Resources:

Poison Control Center* Phone No.: **(800) 876-4766**

Nearest Hospital: Name: **Kaiser Permanente** Phone No.: **(408) 236-6400**

Address: **710 Lawrence Expwy.** City: **Santa Clara**

3. Arrangements With Emergency Responders:

If you have made special (i.e., contractual) arrangements with any police department, fire department, hospital, contractor, or State or local emergency response team to coordinate emergency services, describe those arrangements below:

4. Emergency Procedures:

Emergency Coordinator Responsibilities:

a. Whenever there is an imminent or actual emergency situation such as a explosion, fire, or release, the emergency coordinator *(or his/her designee when the emergency coordinator is on call)* shall:
   i. Identify the character, exact source, amount, and areal extent of any released hazardous materials.
   ii. Assess possible hazards to human health or the environment that may result from the explosion, fire, or release. This assessment must consider both direct and indirect effects *(e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, the effects of any hazardous surface water run-off from water or chemical agents used to control fire, etc.).*
   iii. Activate internal facility alarms or communications systems, where applicable, to notify all facility personnel.
   iv. Notify appropriate local authorities *(i.e., call 911).*
   v. Notify the State Office of Emergency Services at 1-800-852-7550.
   vi. Monitor for leaks, pressure build-up, gas generation, or ruptures in valves, pipes, or other equipment shut down in response to the incident.
   vii. Take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous materials at the facility.

b. Before facility operations are resumed in areas of the facility affected by the incident, the emergency coordinator shall:
   i. Provide for proper storage and disposal of recovered waste, contaminated soil or surface water, or any other material that results from a explosion, fire, or release at the facility.
   ii. Ensure that no material that is incompatible with the released material is transferred, stored, or disposed of in areas of the facility affected by the incident until cleanup procedures are completed.
   iii. Ensure that all emergency equipment is cleaned, fit for its intended use, and available for use.
   iv. Notify the California Environmental Protection Agency's Department of Toxic Substances Control, the local CUPA, and the local fire department's hazardous materials program that the facility is in compliance with requirements b-i and b-ii, above.

Responsibilities of Other Personnel:

On a separate page, list any emergency response functions not covered in the "Emergency Coordinator Responsibilities" section, above. Next to each function, list the job title or name of each person responsible for performing the function. Number the page(s) appropriately.

5. Post-Incident Reporting/Recording:

The time, date, and details of any hazardous materials incident that requires implementation of this plan shall be noted in the facility's operating record.

Within 15 days of any hazardous materials emergency incident or threatened hazardous materials emergency incident that triggers implementation of this plan, a written Emergency Incident Report, including, but not limited to a description of the incident and the facility's response to the incident, must be submitted to the California Environmental Protection Agency's Department of Toxic Substances Control, the local CUPA, and the local fire department's hazardous materials program. The report shall include:

a. Name, address, and telephone number of the facility's owner/operator;
b. Name, address, and telephone number of the facility;
c. Date, time, and type of incident *(e.g., fire, explosion, etc.)*;
d. Name and quantity of material(s) involved;
e. The extent of injuries, if any;
f. An assessment of actual or potential hazards to human health or the environment, where this is applicable;
g. Estimated quantity and disposition of recovered material that resulted from the incident;
h. Cause(es) of the incident;
i. Actions taken in response to the incident;
j. Administrative or engineering controls designed to prevent such incidents in the future.

6. Earthquake Vulnerability: [19 CCR §2731(e)]

As an attachment to this plan, you must identify any areas of the facility and mechanical or other systems that require immediate inspection or isolation because of their vulnerability to earthquake-related ground motion.

7. Hazard Mitigation/Prevention/Abatement [19 CCR §2731(c)]

As an attachment to this plan, you must include procedures that provide for mitigation, prevention, or abatement of hazards to persons, property, or the environment. These procedures must be scaled appropriately for the size and nature of the business, the nature of the damage potential of the hazardous materials handled, and the proximity of the business to residential areas and other populations.

8. Emergency Equipment:

22 CCR §66265.52(e) [as referenced by 22 CCR §66262.34(a)(4)] requires that emergency equipment at the facility be listed. Completion of the following Emergency Equipment Inventory Table meets this requirement.

EMERGENCY EQUIPMENT INVENTORY TABLE

1. Equipment Category	2. Equipment Type	3. Locations *	4. Description**
Personal Protective Equipment, Safety Equipment, and First Aid Equipment	☒ Cartridge Respirators		Air Purifying (half- and full-face)
	☐ Chemical Monitoring Equipment *(describe)*		
	☐ Chemical Protective Aprons/Coats		
	☒ Chemical Protective Boots		
	☒ Chemical Protective Gloves		
	☒ Chemical Protective Suits *(describe)*		Tyvek, Level C
	☒ Face Shields		
	☒ First Aid Kits/Stations *(describe)*		Basic kits (bandages, first aid cream)
	☒ Hard Hats		
	☐ Plumbed Eye Wash Stations		
	☐ Portable Eye Wash Kits *(i.e., bottle type)*		
	☒ Respirator Cartridges *(describe)*		
	☒ Safety Glasses/Splash Goggles		
	☐ Safety Showers		
	☐ Self-Contained Breathing Apparatuses (SCBA)		
	☐ Other *(describe)*		
Fire Extinguishing Systems	☐ Automatic Fire Sprinkler Systems		
	☐ Fire Alarm Boxes/Stations		
	☒ Fire Extinguisher Systems *(describe)*		Inside Building
	☒ Fire Extinguishers *(describe)*		ABC
	☐ Other *(describe)*		
Spill Control Equipment and Decontamination Equipment	☒ Absorbents *(describe)*		
	☒ Berms/Dikes *(describe)*		
	☒ Decontamination Equipment *(describe)*		
	☐ Emergency Tanks *(describe)*		
	☐ Exhaust Hoods		
	☐ Gas Cylinder Leak Repair Kits *(describe)*		
	☐ Neutralizers *(describe)*		
	☒ Overpack Drums		
	☐ Sumps *(describe)*		
	☐ Other *(describe)*		
Communications and Alarm Systems	☐ Chemical Alarms *(describe)*		
	☐ Intercoms/ PA Systems		
	☒ Portable Radios		
	☒ Telephones		
	☐ Tank Leak Detection Systems		
	☐ Other *(describe)*		
Additional Equipment *(Use Additional Pages if Needed.)*	☐		
	☐		
	☐		
	☐		
	☐		
	☐		

* *Use the map and grid numbers from the Storage Map prepared earlier for your HMBP.*

** *Describe the equipment and its capabilities. If applicable, specify any testing/maintenance procedures/intervals. Attach additional pages, numbered appropriately, if needed.*

Employee Training Plan

(Hazardous Materials Business Plan Module)

Authority Cited: HSC, Section 25504(c); 22 CCR §66262.34(a)(4)

All facilities that handle hazardous materials in HMBP quantities must have a written employee training plan. This plan is a required module of the Hazardous Materials Business Plan (HMBP). A blank plan has been provided below for you to complete and submit if you do not already have such a plan. **If you already have a brief written description of your training program that addresses all subjects covered below, you are not required to complete the blank plan, below, but you must include a copy of your existing document as part of your HMBP.**

Check all boxes that apply. *[Note: Items marked with an asterisk (*) are required.]*:

1. Personnel are trained in the following procedures:

☒	Internal alarm/notification *
☒	Evacuation/re-entry procedures & assembly point locations*
☒	Emergency incident reporting
☒	External emergency response organization notification
☒	Location(s) and contents of Emergency Response/Contingency Plan
☒	Facility evacuation drills, that are conducted at least *(specify)*: Annually *(e.g., "Quarterly", etc.)*

2. Chemical Handlers are additionally trained in the following:

☒	Safe methods for handling and storage of hazardous materials *
☒	Location(s) and proper use of fire and spill control equipment
☒	Spill procedures/emergency procedures
☒	Proper use of personal protective equipment *
☒	Specific hazard(s) of each chemical to which they may be exposed, including routes of exposure *(i.e., inhalation, ingestion, absorption)* *
☒	**Hazardous Waste Handlers/Managers** are trained in all aspects of hazardous waste management specific to their job duties *(e.g., container accumulation time requirements, labeling requirements, storage area inspection requirements, manifesting requirements, etc.)* *

3. Emergency Response Team Members are capable of and engaged in the following:

Complete this section only if you have an in-house emergency response team

☒	Personnel rescue procedures
☒	Shutdown of operations
☒	Liaison with responding agencies
☒	Use, maintenance, and replacement of emergency response equipment
☒	Refresher training, which is provided at least annually *
☒	Emergency response drills, which are conducted at least *(specify)*: monthly *(e.g., "Quarterly", etc.)*

Record Keeping

(Hazardous Materials Business Plan Module)

All facilities that handle hazardous materials must maintain records associated with their management. A summary of your record keeping procedures is a required module of the Unidocs Hazardous Materials Business Plan (HMBP). A blank summary has been provided below for you to complete and submit if you do not already have such a document. **If you already have a brief written description of your hazardous materials record keeping systems that addresses all subjects covered below, you are not required to complete this page, but you must include a copy of your existing document as part of your HMBP.**

Check all boxes that apply. The following records are maintained at the facility. *[Note: Items marked with an asterisk (*) are required.]*:

☒	Current employees' training records *(to be retained until closure of the facility)* *
☒	Former employees' training records *(to be retained at least three years after termination of employment)* *
☒	Training Program(s) *(i.e., written description of introductory and continuing training)* *
☒	Current copy of this Emergency Response/Contingency Plan *
☒	Record of recordable/reportable hazardous material/waste releases *
☒	Record of hazardous material/waste storage area inspections *
☒	Record of hazardous waste tank daily inspections *
☒	Description and documentation of facility emergency response drills

Note: The above list of records does not necessarily identify every type of record required to be maintained by the facility.

Note: The following section applies where local agencies require facility owners/operators to perform and document routine facility self-inspections:

A copy of the Inspection Check Sheet(s) or Log(s) used in conjunction with required routine self-inspections of your facility must be submitted with your HMBP. *[Exception: Unidocs provides a Hazardous Materials/Waste Storage Area Inspection Form that you may use if you do not already have your own form. If you use the Unidocs form (available at* **www.unidocs.org***), you do not need to attach a copy.]*

Check the appropriate box:

☐	We will use the Unidocs "Hazardous Materials/Waste Storage Area Inspection Form" to document inspections.
☐	We will use our own documents to record inspections. ***(A blank copy of each document used must be attached to this HMBP.)***

Entered 02/18/10

Fire Department
City of Santa Clara
Hazardous Materials Division
1675 Lincoln Street
Santa Clara, CA 95050-4653
(408) 615-4960 Fax (408) 241-3006

Facility Name: Coherent Inc.
Address: 5200 Patrick Henry Drive
Business License: 114735
Date: 01/14/10
Inspector: Ingrid Giuliani
Inspector Phone Number: 615-4964

INSPECTION REPORT – PART 2 - DEFICIENCIES

Inspection Type:		
	☒ Business Plan	☐ Underground Storage Tank
	☐ Hazardous Waste Generator	☐ Cal Accidental Release Prevention Program
	☐ Hazardous Waste Treatment	☒ Aboveground Storage Tank
	☐ Fire Code	☐ Other:

VIOLATIONS: Codes noted below in the "Violation Code" column represent specific violations of State law and/or local Ordinance. Time granted for correction of deficiencies does not preclude any enforcement action by this Department or other agencies.

Violation Code	Summary of Deficiencies, Observations, and Required Corrective Actions	Corrective Actions Taken
	Conduct monthly inspections of all exit + emergency lighting.	See attached report
CFC 24	Label outside enclosure for diesel generator w/ "diesel fuel, combustible liquid, NO SMOKING" + NFPA 704 diamond.	completed
CFC	See fire + life safety report for fire code corrections.	See attached report
	Test the 2° containment alarm on an annual basis + document this test. Label this alarm point "Rupture Basin Alarm". Also place a proper cap on the emergency relief vent for the rupture basin + label it as well "Emergency Relief Vent for Rupture Basin".	HMBP Received 2-16-10 (PL)

All deficiencies must be corrected within 30 days of the inspection date unless otherwise noted above. Please write a brief description of corrective actions taken to bring this facility into compliance in the right column above, sign the certification statement below and submit it to this Office within 35 days of the inspection date. My signature acknowledges I consented to this inspection. (Note: Detailed instructions on actions you must take are printed on the reverse side of this page.)

Received by: Candace Soles Title: EHS Corp. Manager Date: 1/14/10
Printed Name: Candace Soles Phone No.: 408-764-4415

Certification: I certify under penalty of perjury that this facility has complied with the directives in this Notice to Comply.

Signature of owner/Operator: Candace Soles **Title:** EHS Corp. Mgr **Date:** 2/8/10

(Facility sends yellow copy to Fire Department and keeps pink copy)

COHERENT®

Superior Reliability & Performance

February 8, 2010

RECEIVED
FEB 09 2010
S.C.F.D.

Ms. Angela Giuliani
Santa Clara Fire Department
Hazardous Materials Division
1675 Lincoln Street
Santa Clara, CA 95050

Re: Inspection Report of 5200 Patrick Henry Drive

Dear Angela,

The purpose of this letter is to formally respond to the deficiencies noted during your January 14, 2010, inspection of Coherent's site at 5200 Patrick Henry Drive. The following corrective actions have taken place:

Fire Protection Systems and Equipment

(13) Bender Fire will be on site the week of February 15, 2010, to begin quarterly fire sprinkler inspections. The Facilities Department will maintain all reports for at least five years.

Bender Fire will also supply the spare sprinkler heads and wrench the week of February 15. These items will be located in the box near the riser.

(17) The fire extinguisher in the emergency diesel generator enclosure has been serviced and is scheduled to be inspected monthly and serviced annually by Coast Fire.

Hazardous Materials

(24) The algaecide and water scale inhibitor containers, MC-330 and IWC 275, at the chiller have been relabeled with the chemical name and hazard classification.

(31) An HMBP to account for the diesel generator was submitted to Santa Clara Fire Department on February 8 (to Doug Hansen). A copy of the plan's cover letter is enclosed. The helium tank was removed from inventory.

5100 Patrick Henry Drive
Santa Clara
California 95054
Phone (408) 764-4000
Fax (408) 764-4800

www.Coherent.com

Electrical

(46) Torres Electric filled in the blank on the circuit breaker panel.

Monthly inspections of all indoor exit signs and emergency lighting will be completed on February 12, 2010, and occur monthly thereafter.

Diesel Generator

An NFPA Diamond was posted on the diesel generator enclosure. Likewise, a sign stating, "Diesel Fuel, Combustible Liquid, No Smoking" was posted on the diesel generator enclosure.

The Facilities Department has scheduled Electro-Motion to test the secondary containment alarm of the generator. Electro-Motion will also label the alarm point, "Rupture Basin Alarm" and install the proper cap on the emergency relief valve vent, and label it, "Emergency Relief Vent for Rupture Basin." All of this work will be completed by February 12, 2010.

Please contact me at 408-764-4415 if you have any questions about this report. Thank you,

Best regards,

Candace Soles

Candace Soles
Corporate EH&S Manager

cc: Paul Cutajar, Facilities Manager

5100 Patrick Henry Drive
Santa Clara
California 95054
Phone (408) 764-4000
Fax (408) 764-4800

www.Coherent.com

COHERENT.

Superior Reliability & Performance

February 8, 2010

Mr. Doug Hansen
Santa Clara Fire Department
Hazardous Materials Division
1675 Lincoln Street
Santa Clara, CA 95050

Re: Hazardous Materials Business Plan, 5200 Patrick Henry Drive

Dear Doug,

On January 14, 2010, Angela Giuliani inspected Coherent's building at 5200 Patrick Henry Drive (our 'administrative' operations next door to 5100 Patrick Henry Drive) and asked that we submit an HMBP for the 500-gallon diesel generator located at the rear of the building. Enclosed you will find the HMPB for 5200 Patrick Henry Drive. Originally, were we led to believe that the building's owner was responsible for the generator and HMBP at 5200 Patrick Henry Drive but this appears not the case.

I will include a copy of this letter with my inspection report response to Angela.

I hope all is well with you.

Best regards,

Candace Soles

Candace Soles
Corporate EH&S Manager
408-764-4415

5100 Patrick Henry Drive
Santa Clara
California 95054
Phone (408) 764-4000
Fax (408) 764-4800

www.Coherent.com

Santa Clara Fire Department ♦ 1675 Lincoln Street
Fire Prevention Division ♦ (408) 615-4970 ♦ Hazardous Materials Division ♦ (408) 615-4960

Fire and Life Safety Inspection Report

Business Name: Coherent Inc. | Fire Permit Number: 114735
Business Address: 5200 Patrick Henry Dr. | Business Phone No.: 408-764-4000
Contact Person: Joe Frazer | Date of Inspection: 01/14/10

The following violations require correction in accordance with applicable laws and ordinances.

EXTERIOR

_____1. Provide adequate clearance (36 inches) around hydrants, sprinkler risers, fire department connections and post indicator valves.
_____2. Repair or replace protective covers for fire department connection and ensure that connections rotate smoothly.
_____3. Lock in the open position all fire protection control valves.
_____4. Dumpsters located within 5 feet of any combustible building shall be protected with automatic sprinklers.
_____5. Remove trash, dead vegetation, and/or other combustible waste.
_____6. Post approved address or building number sign on building.
_____7. Provide access for emergency vehicles. Minimum clearances: 20 feet in width; and 13 feet, 6 inches in height.

FIRE PROTECTION SYSTEMS AND EQUIPMENT

_____8. Provide 5-year service certification for fire sprinkler/standpipe system.
_____9. Fire sprinkler systems shall be monitored by an approved monitoring company.
_____10. Provide additional fire sprinklers and/or sprinkler wrench in spare head cabinet.
_____11. Maintain a minimum vertical clearance of 18 inches for storage up to 12 feet and 36 inches for storage above 12 feet between all storage and fire sprinklers.
landlord * ✓ 12. Provide additional fire sprinkler protection in areas noted. Obtain Fire Permit from the Fire Prevention Division.
_____13. Fire sprinkler systems are required to be inspected on a quarterly basis. Records shall be maintained on-site for five years.
_____14. Automatic fire protection systems other than sprinkler and/or standpipe systems are required to be serviced and tagged every six months and after each use.
_____15. Kitchen hood and duct system requires regular cleaning to prevent accumulation of grease.
_____16 Provide and mount a class K fire extinguisher within 30 feet of all commercial cooking areas.
✓ 17. Fire extinguishers are required to be visually inspected monthly and be tagged on an annual basis to certify that a annual maintenance inspection has been performed.
_____18. Provide additional fire extinguishers with a minimum rating and travel distance specified on backside of this report.
_____19. Mount fire extinguishers so that the top of the extinguisher does not exceed five feet from the floor.
_____20. Remove obstructions and maintain access to fire extinguishers; fire hose cabinets and/or manual pull stations.
_____21. Fire alarm systems shall be tested on an annual basis. Records shall be maintained on site.

HAZARDOUS MATERIALS

_____22. Provide an approved flammable liquids cabinet
_____23 Class I Flammable and Class II Combustible Liquids shall be dispensed by an approved means.
✓ 24 Label all chemical storage, use and transportation points.
_____25. Incompatible materials shall be segregated by hazard class or potential to react.
_____26. Provide approved emergency eyewash and/or shower.
_____27. Provide secondary containment for hazardous materials.
_____28. Secure compressed gas cylinders.
_____29. Secondary containment shall be monitored for discharges by an approved method.
_____30. Submit revised Hazardous Material Inventory Statement.
✓ 31. Submit Hazardous Material Management Plan to Hazardous Materials Division. Maintain copy on site for emergency.
_____32. Provide and maintain on site Material Safety Data Sheets for all hazardous materials.
_____33. Hazardous waste shall be handled in accordance with the IFC and State law.

EXITS

_____34. Remove obstructions from aisles, corridors, stairways and exit
_____35. Provide free opening hardware on exit doors.
_____36. Provide exit illumination.
_____37. Provide emergency lighting as required.
_____38. Install approved exit signs at exit doors and along exit ways as required.

ELECTRICAL

_____39. Discontinue use of extension cords in lieu of permanent wiring.
_____40. Discontinue use of non-approved multi-plug adapters.
_____41. Approved multi-plug adapters shall be connected to a permanently installed receptacle.
_____42. Extension and approved multi-plug adapter cords shall not be subject to environmental or physical damage.
_____43. Label high voltage areas and electric rooms.
_____44. Remove combustible storage from electric room(s).
✓ 45. Repair or remove frayed, damaged or spliced wiring.
✓ 46. Provide covers for all electrical boxes, outlets and circuit breaker panels. fill in blanks in panel P5 Sec 2
_____47. Label all circuit breakers.
_____48. Maintain access to all electrical control panels.

GENERAL SAFETY

_____49. Provide an approved dust collection system.
_____50. Combustible storage shall not exceed 12 feet in height without additional fire protection.
_____51. Restore firewalls, occupancy separations or other rated elements to their original classifications.
_____52. Remove obstructions to rated fire doors and test operation on a monthly basis.
_____53. Provide seismic bracing for materials or items, which may present an egress or life safety hazard during a seismic event.
_____54. Remove all combustible storage within 36 inches of any heat producing equipment or appliances.
_____55. Seismically secure water heater.
_____56. Post occupant load sign at main exit.
_____57. Provide an approved locking cabinet in an approved location, which is accessible to the Fire Department in an emergency, for your hazardous material management plan or other emergency plan.

ADMINISTRATIVE

_____58. Obtain and/or post Business License/Fire permit in a visible location.
_____59. Building construction or remodeling requires a permit from the Building Department.
_____60. The occupancy classification for this facility does not correspond with the activities conducted.

service fire extinguisher in generator enclosure

VIOLATION LOCATION DESCRIPTION AND/OR OTHER VIOLATIONS NOT LISTED

Provide spare sprinkler heads & wrench in box near riser.
31) Submit combHMBP. Include diesel fuel and helium cylinders on inventory sheet (non waste).
24) Label Biocide chemicals with hazard classification & content. (chemical name & concentration).

You are hereby ordered to correct, or submit a plan to correct, the violation(s) noted within 30 hours/days from the date of service of this notice. Your cooperation is appreciated. Prompt correction of the violation(s) will avoid the necessity for legal actions.

Issuing Officer/ Phone Number/Station/Zone: Angela Giuliani / (408) 615-4964 / C3 /
Signature of Person Receiving Notice: x [signature] Title of Person Receiving Notice: x EHS Corp. Manager
Reinspection(s) Date and Initials: _____ / _____ / _____ Violations Corrected: _____

SEE REVERSE SIDE FOR DESCRIPTIONS AND CODE REFERENCES FOR LISTED VIOLATIONS.

Entered 1/14/10

Fire Department
City of Santa Clara
Hazardous Materials Division
1675 Lincoln Street
Santa Clara, CA 95050-4653
(408) 615-4960 Fax (408) 241-3006

Facility Name: Coherent Inc.
Address: 5200 Patrick Henry Drive
Business License: 114735
Date: 01/14/10
Inspector: Angelo Giuliani
Inspector Phone Number: 615-4964

INSPECTION REPORT – PART 2 - DEFICIENCIES

Inspection Type:		
	☒ Business Plan	☐ Underground Storage Tank
	☐ Hazardous Waste Generator	☐ Cal Accidental Release Prevention Program
	☐ Hazardous Waste Treatment	☒ Aboveground Storage Tank
	☐ Fire Code	☐ Other:

VIOLATIONS: Codes noted below in the "Violation Code" column represent specific violations of State law and/or local Ordinance. Time granted for correction of deficiencies does not preclude any enforcement action by this Department or other agencies.

Violation Code	Summary of Deficiencies, Observations, and Required Corrective Actions	Corrective Actions Taken
	Conduct monthly inspection of all exit + emergency lighting.	
CFC 24	Label outside enclosure for diesel generator w/ "diesel fuel, combustible liquid, NO SMOKING" + NFPA 704 diamond.	
CFC	See fire + life safety report for fire code corrections.	
	Test the secondary containment alarm on an annual basis + document this test. Label this alarm point "Rupture Basin Alarm." Also place a proper cap on the emergency relief vent for the rupture basin + label it as well "Emergency Relief Vent for Rupture Basin."	

All deficiencies must be corrected within 30 days of the inspection date unless otherwise noted above. Please write a brief description of corrective actions taken to bring this facility into compliance in the right column above, sign the certification statement below and submit it to this Office within 35 days of the inspection date. My signature acknowledges I consented to this inspection. (Note: Detailed instructions on actions you must take are printed on the reverse side of this page.)

Received by: x Candace Scles Title: x EHS Corp. Manager Date: 1/14/10
Printed Name: x Candace Scles Phone No.: x 408-764-4415

Certification: I certify under penalty of perjury that this facility has complied with the directives in this Notice to Comply.

Signature of owner/Operator: _____ **Title:** _____ **Date:** _____

(Facility sends yellow copy to Fire Department and keeps pink copy)

BL #114735 Received 04-01-11

C 07-27-11 JN

UNIDOCS
FACILITY INFORMATION
BUSINESS ACTIVITIES PAGE

04-01-11 JN

I. FACILITY IDENTIFICATION

FACILITY ID # *(Agency Use Only)* 1	– 701776	EPA ID # (Hazardous Waste Only) 2: CAD094979135
BUSINESS NAME *(Same as Facility Name or DBA - Doing Business As)* 3	Coherent, Inc,	
BUSINESS SITE ADDRESS 103	5200 Patrick Henry Drive	
BUSINESS SITE CITY 104	Santa Clara	CA ZIP CODE 95054 105

II. ACTIVITIES DECLARATION

NOTE: If you check YES to any part of this list, please submit the Business Owner/Operator Identification page.

Does your facility...	If Yes, please complete these pages of the UPCF...	
A. HAZARDOUS MATERIALS Have on site (for any purpose) at any one time, hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	☒ YES ☐ NO 4.	HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION
B. REGULATED SUBSTANCES Have Regulated Substances stored onsite in quantities greater than the threshold quantities established by the California Accidental Release Prevention Program (CalARP)?	☐ YES ☒ NO 4a.	Coordinate with your local agency responsible for CalARP.
C. UNDERGROUND STORAGE TANKS (USTs) Own or operate underground storage tanks?	☐ YES ☒ NO 5.	UST OPERATING PERMIT APPLICATION – FACILITY INFORMATION UST OPERATING PERMIT APPLICATION – TANK INFORMATION
D. ABOVE GROUND PETROLEUM STORAGE Own or operate ASTs above these thresholds: Store greater than 1,320 gallons of petroleum products (new or used) in aboveground tanks or containers?	☐ YES ☒ NO 8.	No form required to CUPAs
E. HAZARDOUS WASTE Generate hazardous waste?	☐ YES ☒ NO 9	EPA ID NUMBER – provide at top of this page
Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC §25143.2)?	☐ YES ☒ NO 10	RECYCLABLE MATERIALS REPORT (one per recycler)
Treat hazardous waste onsite?	☐ YES ☒ NO 11	ONSITE HAZARDOUS WASTE TREATMENT NOTIFICATION – FACILITY PAGE ONSITE HAZARDOUS WASTE TREATMENT NOTIFICATION – UNIT PAGE (one page per unit)
Perform treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	☐ YES ☒ NO 12	CERTIFICATION OF FINANCIAL ASSURANCE
Consolidate hazardous waste generated at a remote site?	☐ YES ☒ NO 13.	REMOTE WASTE CONSOLIDATION SITE ANNUAL NOTIFICATION
Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned onsite?	☐ YES ☒ NO 14.	HAZARDOUS WASTE TANK CLOSURE CERTIFICATION
Generate in any single calendar month 1,000 kilograms (kg) (2,200 pounds) or more of federal RCRA hazardous waste, or generate in any single calendar month, or accumulate at any time, 1 kg (2.2 pounds) of RCRA acute hazardous waste; or generate or accumulate at any time more then 100 kg (220 pounds) of spill cleanup materials contaminated with RCRA acute hazardous waste?	☐ YES ☒ NO 14a	Obtain federal EPA ID Number, file Biennial Report (EPA Form 8700-13A/B), and satisfy requirements for RCRA Large Quantity Generator.
Serve as a Household Hazardous Waste (HHW) Collection site?	☐ YES ☒ NO 14b	See CUPA for required forms.

F. LOCAL REQUIREMENTS (You may also be required to provide additional information by your CUPA or local agency.) 15

5200 Patrick Henry

UNIDOCS
FACILITY INFORMATION

BUSINESS OWNER/OPERATOR IDENTIFICATION PAGE

I. IDENTIFICATION

FACILITY ID # *(Agency Use Only)* 1.		BEGINNING DATE 100. 3/30/2011	ENDING DATE 101. 3/30/2012
BUSINESS NAME *(Same as Facility Name or DBA – Doing Business As)* 3. Coherent, Inc.			BUSINESS PHONE 102. (408) 764-4000
BUSINESS SITE ADDRESS 103. 5200 Patrick Henry Drive			BUSINESS FAX 102a. (408) 764-4811
BUSINESS SITE CITY 104. Santa Clara	CA	ZIP CODE 105. 95054	COUNTY 108. Santa Clara
DUN & BRADSTREET 106. 043719210		PRIMARY SIC 107. 3699	PRIMARY NAICS 107a.
BUSINESS MAILING ADDRESS 108a. 5100 Patrick Henry Drive			
BUSINESS MAILING CITY 108b. Santa Clara		STATE 108c. CA	ZIP CODE 108d. 95054
BUSINESS OPERATOR NAME 109. Coherent, Inc.			BUSINESS OPERATOR PHONE 110. (408) 764-4000

II. BUSINESS OWNER

OWNER NAME 111. Coherent, Inc.		OWNER PHONE 112. (408) 764-4000
OWNER MAILING ADDRESS 113. 5100 Patrick Henry Drive		
OWNER MAILING CITY 114. Santa Clara	STATE 115. CA	ZIP CODE 116. 95054

III. ENVIRONMENTAL CONTACT

CONTACT NAME 117. Candace Soles		CONTACT PHONE 118. (408) 764-4415
CONTACT MAILING ADDRESS 119. 5100 Patrick Henry Drive		CONTACT EMAIL 119a. candace.soles@coherent.com
CONTACT MAILING CITY 120. Santa Clara	STATE 121. CA	ZIP CODE 122. 95054

IV. EMERGENCY CONTACTS

-PRIMARY-	-SECONDARY-
NAME 123. Willy Pascua	NAME 128. Candace Soles
TITLE 124. Facilities Engineer / Incident Commander	TITLE 129. EH&S Manager
BUSINESS PHONE 125. (408) 764-4601	BUSINESS PHONE 130. (408) 764-4415
24-HOUR PHONE 126.	24-HOUR PHONE 131.
PAGER # 127. ( ) NA	PAGER # 132. ( ) NA

ADDITIONAL LOCALLY COLLECTED INFORMATION: 133.

Billing Address: 5100 Patrick Henry Drive, Santa Clara, CA 95054

Property Owner: Matteson Realty Services Inc (Anne Risberg contact) Phone No.: (650) 802-1800

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE	DATE 134.	NAME OF DOCUMENT PREPARER 135.
Candace Soles	3/30/11	Candace Soles
NAME OF SIGNER (print) 136. Candace Soles	TITLE OF SIGNER 137. EHS Manager	

Non-Waste Hazardous Materials Inventory Statement

For use by Unidocs Member Agencies or where approved by your Local Jurisdiction

Date: 3/30/2011

Business Name: Coherent, Inc. (Same as Facility Name)

Type of Report on This Page: ☒ Add; ☐ Delete; ☐ Revise

Chemical Location: (Building/Storage Area)

EPCRA Confidential Location? ☐ Yes; ☒ No

Trade Secret Information? ☐ Yes; ☒ No

Facility ID # (Agency Use Only)

1. Haz. Class	2. Map and Grid or Location Code	3. Common Name / CAS No. / EHS	4. Hazardous Components (For mixtures only): Chemical Name / % Wt. / EHS / CAS No.	5. Type and Physical State	6. Quantities: Max. Daily / Average Daily / Largest Cont.	7. Units	8. Storage Codes: Storage Pressure / Storage Temp.	9. Hazard Categories
CL		Diesel Fuel CAS No.: 68476-34-6 ☐ EHS		☒ pure ☐ mixture ☐ solid ☒ liquid ☐ gas	500 / 475 / 500 Curies: (If radioactive) Days On Site: 365 Storage Container:* R	☒ gallons ☐ pounds ☐ cu. feet ☐ tons	☒ ambient ☐ > amb. ☐ < amb ☒ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☒ acute health ☐ chronic health ☐ radioactive
		CAS No.: ☐ EHS		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas	Curies: (If radioactive) Days On Site: Storage Container:*	☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb ☐ < amb. ☐ ambient ☐ > amb ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		CAS No.: ☐ EHS		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas	Curies: (If radioactive) Days On Site: Storage Container:*	☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb. ☐ ambient ☐ > amb ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		CAS No.: ☐ EHS		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas	Curies: (If radioactive) Days On Site: Storage Container:*	☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb. ☐ ambient ☐ > amb ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		CAS No.: ☐ EHS		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas	Curies: (If radioactive) Days On Site: Storage Container:*	☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb. ☐ ambient ☐ > amb ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		CAS No.: ☐ EHS		☐ pure ☐ mixture ☐ solid ☐ liquid ☐ gas	Curies: (If radioactive) Days On Site: Storage Container:*	☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb. ☐ ambient ☐ > amb ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive

* Storage Type Codes: A Aboveground Tank; B Below-ground Tank; C Tank Inside Building; D Steel Drum; E Plastic/Non-metallic Drum; F Can; G Carboy; H Silo; I Fiber Drum; J Bag; K Box; L Cylinder; M Glass Bottle or Jug; N Plastic Bottle or Jug; O Tote Bin; P Tank Wagon; Q Rail Car; R Other

If EPCRA, sign below: _____

Date: 03/30/2011

Non-Waste Hazardous Materials Inventory Statement

For use by Unidocs Member Agencies or where approved by your Local Jurisdiction

Business Name: **Coherent, Inc.**
(same as Facility Name or DBA)

Chemical Location:

EPCRA Confidential Location? ☐ Yes; ☒ No
Trade Secret Information? ☐ Yes; ☒ No

Facility ID # (Agency Use Only)

Type of Report on This Page: ☐ Add; ☐ Delete; ☒ Revise

Page 4 of _11 (One page per building or area)

1. Haz. Class	2. Map and Grid or Location Code	3. Common Name	4. Hazardous Components (For mixtures only) Chemical Name	% Wt.	EHS	CAS No.	5. Type and Physical State	6. Quantities Max. Daily	Average Daily	Largest Cont.	7. Units	8. Storage Codes Storage Pressure	Storage Temp.	9. Hazard Categories
2.2		Argon			☐	CAS No.: 7440-37-1	☒ pure ☐ mixture ☐ solid ☐ liquid ☒ gas	5,400 Curies: (If radioactive)	3,600 Days On Site: 365	600 Storage Container:* L	☐ gallons ☐ pounds ☒ cu. feet ☐ tons	☐ ambient ☒ > amb. ☐ < amb.	☒ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☒ pressure release ☒ acute health ☐ chronic health ☐ radioactive
2.2		Liquid Nitrogen			☐	CAS No.: 7727-37-9	☒ pure ☐ mixture ☐ solid ☒ liquid ☐ gas	434 Curies: (If radioactive)	300 Days On Site: 365	217 Storage Container:* L	☒ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☒ > amb. ☒ < amb.	☐ ambient ☐ > amb. ☐ < amb. ☒ cryogenic	☐ fire ☐ reactive ☒ pressure release ☒ acute health ☐ chronic health ☐ radioactive
2.2; 5.1		Oxygen			☐	CAS No.: 7782-44-7	☒ pure ☐ mixture ☐ solid ☐ liquid ☒ gas	5,000 Curies: (If radioactive)	3,000 Days On Site: 365	600 Storage Container:* L	☐ gallons ☐ pounds ☒ cu. feet ☐ tons	☐ ambient ☒ > amb. ☐ < amb.	☐ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☒ fire ☐ reactive ☒ pressure release ☐ acute health ☐ chronic health ☐ radioactive
3		Acetone			☐	CAS No.: 67-64-1	☒ pure ☐ mixture ☐ solid ☒ liquid ☐ gas	4 Curies: (If radioactive)	3 Days On Site: 365	1 Storage Container:* N	☒ gallons ☐ pounds ☐ cu. feet ☐ tons	☒ ambient ☐ > amb. ☐ < amb.	☒ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☒ fire ☐ reactive ☐ pressure release ☒ acute health ☐ chronic health ☐ radioactive
3		Isopropyl Alcohol			☐	CAS No.: 67-63-0	☒ pure ☐ mixture ☐ solid ☒ liquid ☐ gas	4 Curies: (If radioactive)	3 Days On Site: 365	1 Storage Container:* N	☒ gallons ☐ pounds ☐ cu. feet ☐ tons	☒ ambient ☐ > amb. ☐ < amb.	☒ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☒ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
2.1		Propane			☐	CAS No.: 74-98-6	☒ pure ☐ mixture ☐ solid ☒ liquid ☐ gas	20 Curies: (If radioactive)	10 Days On Site: 365	10 Storage Container:* L	☐ gallons ☒ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☒ < amb.	☒ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☒ acute health ☐ chronic health ☐ radioactive

Code	Storage Type	Code	Storage Type	Code	Storage Type	Code	Storage Type	Code	Storage Type	Code	Storage Type
A	Aboveground Tank	D	Steel Drum	G	Carboy	J	Bag	M	Glass Bottle or Jug	P	Tank Wagon
B	Belowground Tank	E	Plastic/Non-metallic Drum	H	Silo	K	Box	N	Plastic Bottle or Jug	Q	Rail Car
C	Tank Inside Building	F	Can	I	Fiber Drum	L	Cylinder	O	Tote Bin	R	Other

If EPCRA, sign below:

Hazardous Waste Inventory Statement

For use by Unidocs Member Agencies or where approved by your Local Jurisdiction

Date: 3/30/2011

Business Name: Coherent, Inc (Same as Facility Name or DBA)

Chemical Location:

EPCRA Confidential Location? ☐ Yes; ☒ No
Trade Secret Information? ☐ Yes; ☒ No

Facility ID # (Agency Use Only)

Type of Report on This Page: ☒ Add; ☐ Delete; ☐ Revise

Page 5 of 11 (One page per building or area)

1. Haz. Class	2. Map and Grid or Location Code	3. Waste Stream Name	4. Hazardous Components: Chemical Name	% Wt.	EHS	CAS No.	5. Type and Physical State	6. Quantities: Max. Daily	Average Daily	Largest Cont.	7. Annual Waste Amount	8. Units	9. Storage Codes: Storage Pressure	Storage Temp.	10. Hazard Categories
9		Solvent Contaminated Debris	Isopropyl Alcohol	5	☐	067-63-0	☒ waste	1.0	0.5	2	25	☐ gallons ☒ pounds ☐ cu. feet ☐ tons	☒ ambient ☐ > amb. ☐ < amb.	☒ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☒ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
			Acetone	5	☐	067-64-1									
		Management Method: ☒ Shipped Off-site ☐ Recycled On-site ☐ Treated On-site			☐		☐ solid ☐ liquid ☐ gas	Curies: (If radioactive)	Days On Site: 365	Storage Container:* F	State Waste Code:				
					☐		☒ waste					☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb.	☐ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		Management Method: ☐ Shipped Off-site ☐ Recycled On-site ☐ Treated On-site			☐		☐ solid ☐ liquid ☐ gas	Curies: (If radioactive)	Days On Site:	Storage Container:*	State Waste Code:				
					☐		☒ waste					☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb.	☐ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		Management Method: ☐ Shipped Off-site ☐ Recycled On-site ☐ Treated On-site			☐		☐ solid ☐ liquid ☐ gas	Curies: (If radioactive)	Days On Site:	Storage Container:*	State Waste Code:				
					☐		☒ waste					☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb.	☐ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		Management Method: ☐ Shipped Off-site ☐ Recycled On-site ☐ Treated On-site			☐		☐ solid ☐ liquid ☐ gas	Curies: (If radioactive)	Days On Site:	Storage Container:*	State Waste Code:				
					☐		☒ waste					☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb.	☐ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		Management Method: ☐ Shipped Off-site ☐ Recycled On-site ☐ Treated On-site			☐		☐ solid ☐ liquid ☐ gas	Curies: (If radioactive)	Days On Site:	Storage Container:*	State Waste Code:				
					☐		☒ waste					☐ gallons ☐ pounds ☐ cu. feet ☐ tons	☐ ambient ☐ > amb. ☐ < amb.	☐ ambient ☐ > amb. ☐ < amb. ☐ cryogenic	☐ fire ☐ reactive ☐ pressure release ☐ acute health ☐ chronic health ☐ radioactive
		Management Method: ☐ Shipped Off-site ☐ Recycled On-site ☐ Treated On-site			☐		☐ solid ☐ liquid ☐ gas	Curies: (If radioactive)	Days On Site:	Storage Container:*	State Waste Code:				

* Storage Container Codes

Code	Storage Type	Code	Storage Type	Code	Storage Type	Code	Storage Type	Code	Storage Type	Code	Storage Type
A	Aboveground Tank	D	Steel Drum	G	Carboy	J	Bag	M	Glass Bottle or Jug	P	Tank Wagon
B	Belowground Tank	E	Plastic/Nonmetallic Drum	H	Silo	K	Box	N	Plastic Bottle or Jug	Q	Rail Car
C	Tank Inside Building	F	Can	I	Fiber Drum	L	Cylinder	O	Tote Bin	R	Other

If EPCRA, sign below:

Emergency Response/Contingency Plan

(Hazardous Materials Business Plan Module)

Authority Cited: HSC§ 25504(b); 19 CCR §2731; 22 CCR §66262.34(a)(4)

All facilities that handle hazardous materials in HMBP quantities must have a written emergency response plan. In addition, facilities that generate 1,000 kilograms or more of hazardous waste (or more than 1 kilogram of acutely hazardous waste or 100 kilograms of debris resulting from the spill of an acutely hazardous waste) per month, or accumulate more than 6,000 kilograms of hazardous waste on-site at any one time, must prepare a hazardous waste contingency plan. Because the requirements are similar, they have been combined in a single document, provided below, for your convenience. This plan is a required module of the Hazardous Materials Business Plan (HMBP). **If you already have a plan that meets these requirements, you should not complete the blank plan, below, but you must include a copy of your existing plan as part of your HMBP.**

This site-specific Emergency Response/Contingency Plan is the facility's plan for dealing with emergencies and shall be implemented immediately whenever there is a fire, explosion, or release of hazardous materials that could threaten human health and/or the environment. **At least one copy of the plan shall be maintained at the facility for use in the event of an emergency and for inspection by the local agency.** A copy of the plan and any revisions must be provided to any contractor, hospital, or agency with whom special (i.e., contractual) emergency services arrangements have been made *(see section 3, below)*.

1. Evacuation Plan:

a. The following alarm signal(s) will be used to begin evacuation of the facility *(check all that apply)*:

☐ Bells; ☐ Horns/Sirens; ☒ Verbal *(i.e., shouting)*; ☒ Other *(specify* Emergency Whistles

b. ☒ Evacuation map is prominently displayed throughout the facility.

Note: A properly completed HMBP Site Plan satisfies contingency plan map requirements. This drawing (or any other drawing that shows primary and alternate evacuation routes, emergency exits, and primary and alternate staging areas) must be prominently posted throughout the facility in locations where it will be visible to employees and visitors.

2. a. Emergency Contacts*:

Fire/Police/Ambulance ..... Phone No.: **911**

State Office of Emergency Services ..... Phone No.: **(800) 852-7550**

b. Post-Incident Contacts*:

Certified Unified Program Agency (CUPA) ..... Phone No.: **(408) 615-4960**

Local Hazardous Materials Program ..... Phone No.: **(408) 615-4900**

California EPA Department of Toxic Substances Control ..... Phone No.: **(800) 698-6942**

Cal-OSHA Division of Occupational Safety and Health ..... Phone No.: **(510) 794-2521**

Air Quality Management District ..... Phone No.: **(415) 749-5000**

Regional Water Quality Control Board ..... Phone No.: **(510) 622-2300**

*** Phone numbers for agencies in Unidocs Member Agency geographic jurisdictions are available at www.unidocs.org.**

c. Emergency Resources:

Poison Control Center* ..... Phone No.: **(800) 876-4766**

Nearest Hospital: Name: **Kaiser Permanente** Phone No.: **(408) 236-6400**

Address: **710 Lawrence Expwy.** City: **Santa Clara**

3. Arrangements With Emergency Responders:

If you have made special (i.e., contractual) arrangements with any police department, fire department, hospital, contractor, or State or local emergency response team to coordinate emergency services, describe those arrangements below:

4. Emergency Procedures:

Emergency Coordinator Responsibilities:

a. Whenever there is an imminent or actual emergency situation such as a explosion, fire, or release, the emergency coordinator *(or his/her designee when the emergency coordinator is on call)* shall:
   i. Identify the character, exact source, amount, and areal extent of any released hazardous materials.
   ii. Assess possible hazards to human health or the environment that may result from the explosion, fire, or release. This assessment must consider both direct and indirect effects *(e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, the effects of any hazardous surface water run-off from water or chemical agents used to control fire, etc.).*
   iii. Activate internal facility alarms or communications systems, where applicable, to notify all facility personnel.
   iv. Notify appropriate local authorities *(i.e., call 911).*
   v. Notify the State Office of Emergency Services at 1-800-852-7550.
   vi. Monitor for leaks, pressure build-up, gas generation, or ruptures in valves, pipes, or other equipment shut down in response to the incident.
   vii. Take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous materials at the facility.

b. Before facility operations are resumed in areas of the facility affected by the incident, the emergency coordinator shall:
   i. Provide for proper storage and disposal of recovered waste, contaminated soil or surface water, or any other material that results from a explosion, fire, or release at the facility.
   ii. Ensure that no material that is incompatible with the released material is transferred, stored, or disposed of in areas of the facility affected by the incident until cleanup procedures are completed.
   iii. Ensure that all emergency equipment is cleaned, fit for its intended use, and available for use.
   iv. Notify the California Environmental Protection Agency's Department of Toxic Substances Control, the local CUPA, and the local fire department's hazardous materials program that the facility is in compliance with requirements b-i and b-ii, above.

Responsibilities of Other Personnel:

On a separate page, list any emergency response functions not covered in the "Emergency Coordinator Responsibilities" section, above. Next to each function, list the job title or name of each person responsible for performing the function. Number the page(s) appropriately.

5. Post-Incident Reporting/Recording:

The time, date, and details of any hazardous materials incident that requires implementation of this plan shall be noted in the facility's operating record.

Within 15 days of any hazardous materials emergency incident or threatened hazardous materials emergency incident that triggers implementation of this plan, a written Emergency Incident Report, including, but not limited to a description of the incident and the facility's response to the incident, must be submitted to the California Environmental Protection Agency's Department of Toxic Substances Control, the local CUPA, and the local fire department's hazardous materials program. The report shall include:
   a. Name, address, and telephone number of the facility's owner/operator;
   b. Name, address, and telephone number of the facility;
   c. Date, time, and type of incident *(e.g., fire, explosion, etc.)*;
   d. Name and quantity of material(s) involved;
   e. The extent of injuries, if any;
   f. An assessment of actual or potential hazards to human health or the environment, where this is applicable;
   g. Estimated quantity and disposition of recovered material that resulted from the incident;
   h. Cause(es) of the incident;
   i. Actions taken in response to the incident;
   j. Administrative or engineering controls designed to prevent such incidents in the future.

6. Earthquake Vulnerability: [19 CCR §2731(e)]

As an attachment to this plan, you must identify any areas of the facility and mechanical or other systems that require immediate inspection or isolation because of their vulnerability to earthquake-related ground motion.

7. Hazard Mitigation/Prevention/Abatement [19 CCR §2731(c)]

As an attachment to this plan, you must include procedures that provide for mitigation, prevention, or abatement of hazards to persons, property, or the environment. These procedures must be scaled appropriately for the size and nature of the business, the nature of the damage potential of the hazardous materials handled, and the proximity of the business to residential areas and other populations.

8. Emergency Equipment:

22 CCR §66265.52(e) [as referenced by 22 CCR §66262.34(a)(4)] requires that emergency equipment at the facility be listed. Completion of the following Emergency Equipment Inventory Table meets this requirement.

EMERGENCY EQUIPMENT INVENTORY TABLE

1. Equipment Category	2. Equipment Type	3. Locations *	4. Description**
Personal Protective Equipment, Safety Equipment, and First Aid Equipment	☒ Cartridge Respirators		Air Purifying (half- and full-face)
	☐ Chemical Monitoring Equipment *(describe)*		
	☐ Chemical Protective Aprons/Coats		
	☒ Chemical Protective Boots		
	☒ Chemical Protective Gloves		
	☒ Chemical Protective Suits *(describe)*		Tyvek, Level C
	☒ Face Shields		
	☒ First Aid Kits/Stations *(describe)*		Basic kits (bandages, first aid cream)
	☒ Hard Hats		
	☐ Plumbed Eye Wash Stations		
	☐ Portable Eye Wash Kits *(i.e., bottle type)*		
	☒ Respirator Cartridges *(describe)*		
	☒ Safety Glasses/Splash Goggles		
	☐ Safety Showers		
	☐ Self-Contained Breathing Apparatuses (SCBA)		
	☐ Other *(describe)*		
Fire Extinguishing Systems	☒ Automatic Fire Sprinkler Systems		
	☒ Fire Alarm Boxes/Stations		
	☐ Fire Extinguisher Systems *(describe)*		I
	☒ Fire Extinguishers *(describe)*		ABC
	☐ Other *(describe)*		
Spill Control Equipment and Decontamination Equipment	☒ Absorbents *(describe)*		
	☒ Berms/Dikes *(describe)*		
	☒ Decontamination Equipment *(describe)*		
	☐ Emergency Tanks *(describe)*		
	☐ Exhaust Hoods		
	☐ Gas Cylinder Leak Repair Kits *(describe)*		
	☐ Neutralizers *(describe)*		
	☒ Overpack Drums		
	☐ Sumps *(describe)*		
	☐ Other *(describe)*		
Communications and Alarm Systems	☐ Chemical Alarms *(describe)*		
	☐ Intercoms/ PA Systems		
	☒ Portable Radios		
	☒ Telephones		
	☐ Tank Leak Detection Systems		
	☐ Other *(describe)*		
Additional Equipment *(Use Additional Pages if Needed.)*	☐		
	☐		
	☐		
	☐		
	☐		
	☐		

* *Use the map and grid numbers from the Storage Map prepared earlier for your HMBP.*

** *Describe the equipment and its capabilities. If applicable, specify any testing/maintenance procedures/intervals. Attach additional pages, numbered appropriately, if needed.*

Employee Training Plan

(Hazardous Materials Business Plan Module)

Authority Cited: HSC, Section 25504(c); 22 CCR §66262.34(a)(4)

All facilities that handle hazardous materials in HMBP quantities must have a written employee training plan. This plan is a required module of the Hazardous Materials Business Plan (HMBP). A blank plan has been provided below for you to complete and submit if you do not already have such a plan. **If you already have a brief written description of your training program that addresses all subjects covered below, you are not required to complete the blank plan, below, but you must include a copy of your existing document as part of your HMBP.**

Check all boxes that apply. *[Note: Items marked with an asterisk (*) are required.]*:

1. **Personnel** are trained in the following procedures:

☒	Internal alarm/notification *
☒	Evacuation/re-entry procedures & assembly point locations*
☒	Emergency incident reporting
☒	External emergency response organization notification
☒	Location(s) and contents of Emergency Response/Contingency Plan
☒	Facility evacuation drills, that are conducted at least *(specify)*: Annually *(e.g., "Quarterly", etc.)*

2. **Chemical Handlers** are additionally trained in the following:

☒	Safe methods for handling and storage of hazardous materials *
☒	Location(s) and proper use of fire and spill control equipment
☒	Spill procedures/emergency procedures
☒	Proper use of personal protective equipment *
☒	Specific hazard(s) of each chemical to which they may be exposed, including routes of exposure *(i.e., inhalation, ingestion, absorption)* *
☒	**Hazardous Waste Handlers/Managers** are trained in all aspects of hazardous waste management specific to their job duties *(e.g., container accumulation time requirements, labeling requirements, storage area inspection requirements, manifesting requirements, etc.)* *

3. **Emergency Response Team Members** are capable of and engaged in the following:

Complete this section only if you have an in-house emergency response team

☒	Personnel rescue procedures
☒	Shutdown of operations
☒	Liaison with responding agencies
☒	Use, maintenance, and replacement of emergency response equipment
☒	Refresher training, which is provided at least annually *
☒	Emergency response drills, which are conducted at least *(specify)*: Monthly *(e.g., "Quarterly", etc.)*

Record Keeping

All facilities that handle hazardous materials must maintain records associated with their management. A summary of your record keeping procedures is a required module of the Unidocs Hazardous Materials Business Plan (HMBP). A blank summary has been provided below for you to complete and submit if you do not already have such a document. **If you already have a brief written description of your hazardous materials record keeping systems that addresses all subjects covered below, you are not required to complete this page, but you must include a copy of your existing document as part of your HMBP.**

Check all boxes that apply. The following records are maintained at the facility. *[Note: Items marked with an asterisk (*) are required.]*:

☒	Current employees' training records *(to be retained until closure of the facility)* *
☒	Former employees' training records *(to be retained at least three years after termination of employment)* *
☒	Training Program(s) *(i.e., written description of introductory and continuing training)* *
☒	Current copy of this Emergency Response/Contingency Plan *
☒	Record of recordable/reportable hazardous material/waste releases *
☒	Record of hazardous material/waste storage area inspections *
☒	Record of hazardous waste tank daily inspections *
☒	Description and documentation of facility emergency response drills

Note: The above list of records does not necessarily identify every type of record required to be maintained by the facility.

Note: The following section applies where local agencies require facility owners/operators to perform and document routine facility self-inspections:

A copy of the Inspection Check Sheet(s) or Log(s) used in conjunction with required routine self-inspections of your facility must be submitted with your HMBP. *[Exception: Unidocs provides a Hazardous Materials/Waste Storage Area Inspection Form that you may use if you do not already have your own form. If you use the Unidocs form (available at* **www.unidocs.org***), you do not need to attach a copy.]*

Check the appropriate box:

☐	We will use the Unidocs "Hazardous Materials/Waste Storage Area Inspection Form" to document inspections.
☒	We will use our own documents to record inspections. ***(A blank copy of each document used must be attached to this HMBP.)***

COHERENT.

5100 Patrick Henry Drive
Hazardous Waste Storage Area Weekly Inspection

Inspection Date:_____
Time:_____

		YES	NO
1.	Is the area free of spill or leaks?	_____	_____
2.	Are drums labeled with proper hazardous waste label/accumulation start date?	_____	_____
3.	Are drums tops free of spillage?	_____	_____
4.	Are drum bungs/lids closed?	_____	_____
5.	Are hazard classes properly segregated?	_____	_____
6.	Is the area properly identified with warning signs?	_____	_____
7.	Check oxidizer, acid and solvent storage for standing liquids.	_____	_____
8.	Check chemical cart/pump, fitting, and tubing for leaks, damage, etc.	_____	_____
9.	Are empty hazmat containers > 5 gallons containers marked with empty date?	_____	_____
10.	Are hazardous waste containers in good condition?	_____	_____

Comments/Corrective Action (include dates):

Inspector:_____Date:_____

- This record must be maintained for a minimum of three (3) years
- Inspection must be conducted weekly.

(1-500 gallon diesel tank)

Entered 12/23/13

Fire Department
City of Santa Clara
Hazardous Materials Division
1675 Lincoln Street
Santa Clara, CA 95050-4653
(408) 615-4960 Fax (408) 241-3006

RECEIVED
DEC 20 2013
S.C.F.D.

Facility Name: Coherent Inc.
Address: 5200 Patrick Henry Dr.
Business License: 10/29/13 ✓
Date: 214735
Inspector: Angela Giuliani
Inspector Phone Number: 408-615-4964

INSPECTION REPORT – PART 2 - DEFICIENCIES

Inspection Type:	☐ Business Plan	☐ Underground Storage Tank
	☒ Hazardous Waste Generator	☐ Cal Accidental Release Prevention Program
	☐ Hazardous Waste Treatment	☒ Aboveground Storage Tank
	☐ Fire Code	☐ Other:

VIOLATIONS: Codes noted below in the "Violation Code" column represent specific violations of State law and/or local Ordinance. Time granted for correction of deficiencies does not preclude any enforcement action by this Department or other agencies.

Violation Code	Summary of Deficiencies, Observations, and Required Corrective Actions	Corrective Actions Taken
	Provide an emergency relief vent for the diesel generator tank's secondary containment and label the emergency relief vents (both the primary & secondary). Label the normal vent as well.	11-26-13
	Also label high level alarm. (Is there a high level alarm?)	
22427	Also update the HMBP on an annual basis on CERS. Correct the amount of chemicals allowed in a control area and update site map. Print off a hard copy and put it in the binder in the front office.	11-26-13 Updated 11-26-13

All deficiencies must be corrected within 30 days of the inspection date unless otherwise noted above. Please write a brief description of corrective actions taken to bring this facility into compliance in the right column above, sign the certification statement below and submit it to this Office within 35 days of the inspection date. My signature acknowledges I consented to this inspection. (Note: Detailed instructions on actions you must take are printed on the reverse side of this page.)

Received by: Candace Soles Title: EHS Manager Date: 10/29/13
Printed Name: Candace Soles Phone No.: 408-764-4415

Certification: I certify under penalty of perjury that this facility has complied with the directives in this Notice to Comply.

Signature of owner/Operator: Candace Soles Title: EHS Manager Date: 11/27/13

(Facility sends yellow copy to Fire Department and keeps pink copy)

COHERENT®

Superior Reliability & Performance

November 27, 2013

Ms. Angela Giuliani
Santa Clara Fire Department
Hazardous Materials Division
1675 Lincoln Street
Santa Clara, CA 95050

Re: Hazardous Materials Inspection, 5200 Patrick Henry Drive

Dear Angela,

The purpose of this letter is to formally respond to the two (2) deficiencies noted on your hazardous materials inspection of Coherent's facility at 5200 Patrick Henry Drive October 29, 2013. The following corrective actions have taken place:

Emergency Diesel Generator

The emergency relief vent for the emergency diesel generator's secondary containment is present along the north side of the tank. The vent runs the width of the tank but is hidden from view by a venting "lip" that runs the length of the vent. Currently, a sign is posted above the vent, and Electro-Motion, Coherent's service supplier, added additional labeling so the vent location is easier to notice. Electro-Motion also applied labels at the following points of the generator:

- Primary emergency relief vent
- Normal vent
- High level alarm

The attached photographs show the existing sign and new labeling of the emergency relief vent for the secondary containment (rupture basin), and the new labels applied in the interior of the tank to identify the normal vent and high level alarm as per your request.

5100 Patrick Henry Drive
Santa Clara
California 95054
Phone (408) 764-4000
Fax (408) 764-4800

www.Coherent.com

Hazardous Materials Business Plan

The Hazardous Materials Business Plan was updated on CERS on November 26, 2013. The site map and chemical inventory were updated to reflect current conditions and the Facility Information section was reviewed for accuracy. A hard copy of the HMBP for 5100 and 5200 Patrick Henry Drive are now kept in a binder at the receptionist's desk in Coherent's main lobby at 5100 Patrick Henry Drive.

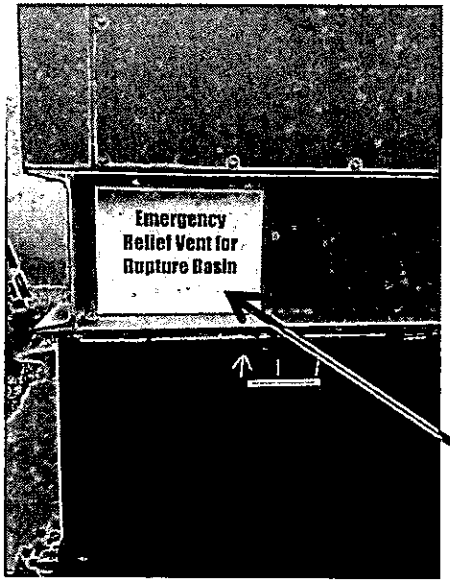
Please contact me at 408-764-4415 if you have any questions about this report. Thank you.

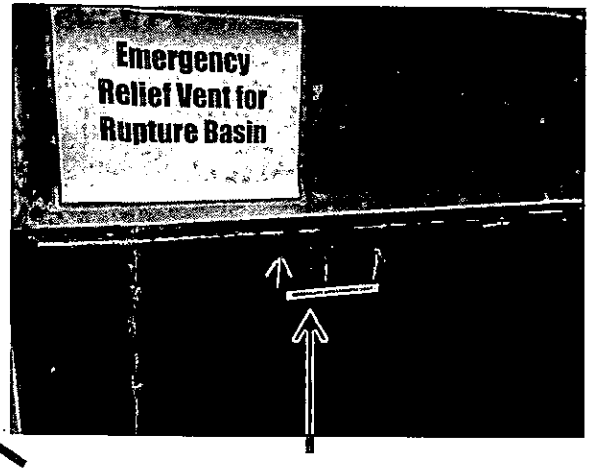
Best regards,

Candace Soles
EH&S Corporate Manager

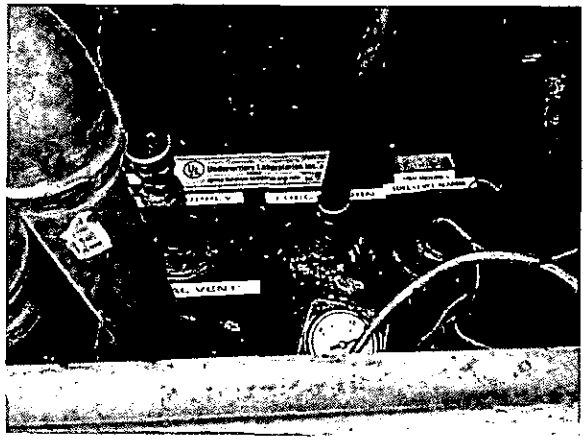
cc: Willy Pascua, Facilities Engineer

Emergency Generator – Coherent Inc – 5200 Patrick Henry Drive – Santa Clara



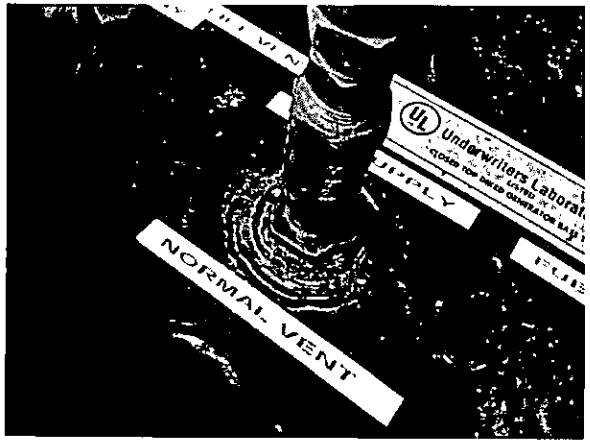


Existing sign and additional label/marking of secondary containment (rupture basin) vent.

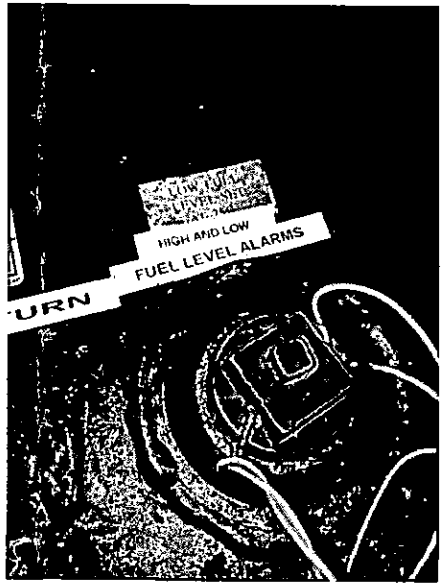


View of new labels added to vents and alarms.

Primary emergency relief vent label.



Normal vent label.



High level (and low level) alarm label.

11/27/2013

(1-500 gallon diesel tank)

Fire Department
City of Santa Clara
Hazardous Materials Division
1675 Lincoln Street
Santa Clara, CA 95050-4653
(408) 615-4960 Fax (408) 241-3006

Entered 10/29/13

Facility Name: Coherent Inc.
Address: 5200 Patrick Henry Dr.
Business License: 10/29/13
Date: 214735
Inspector: Angela Giuliani
Inspector Phone Number: 408-615-4964

INSPECTION REPORT – PART 2 - DEFICIENCIES

Inspection Type:		
	☒ Business Plan	☐ Underground Storage Tank
	☒ Hazardous Waste Generator	☐ Cal Accidental Release Prevention Program
	☐ Hazardous Waste Treatment	☒ Aboveground Storage Tank
	☒ Fire Code By Jake T.	☐ Other:

VIOLATIONS: Codes noted below in the "Violation Code" column represent specific violations of State law and/or local Ordinance. Time granted for correction of deficiencies does not preclude any enforcement action by this Department or other agencies.

Violation Code	Summary of Deficiencies, Observations, and Required Corrective Actions	Corrective Actions Taken
	Provide an emergency relief vent for the diesel generators tanks secondary containment and label the emergency relief vents (both the primary & secondary). Label the normal vent as well.	
	Also label high level alarm. (Is there a high-level alarm?)	
2242	Also update the HMBP on an annual basis on CERS. Correct the amount of chgcs allowed in a control area and update site map. Print off a hard copy and post it in the front office.	

All deficiencies must be corrected within 30 days of the inspection date unless otherwise noted above. Please write a brief description of corrective actions taken to bring this facility into compliance in the right column above, sign the certification statement below and submit it to this Office within 35 days of the inspection date. My signature acknowledges I consented to this inspection. (Note: Detailed instructions on actions you must take are printed on the reverse side of this page.)

Received by: x Candace Soles Title: x EHS Manager Date: 10/29/13
Printed Name: x Candace Soles Phone No.: x 408-764-4415

Certification: I certify under penalty of perjury that this facility has complied with the directives in this Notice to Comply.

Signature of owner/Operator: _____ **Title:** _____ **Date:** _____

(Facility sends yellow copy to Fire Department and keeps pink copy)

* Do NOT Inspect in * 2013

FIRE INSPECTION FORM
Santa Clara Fire Department

* Haz Mat Division * Inspects in 2013

Date: _____ _____ Hours _____ Minutes

Last Inspection Date: 05/22/2013 Inspector: Tomlin, Jake Time: 0 Hours 45 Minutes

GENERAL BUSINESS INFORMATION

Business Name and Location
Coherent Inc
5200 Patrick Henry Dr
Santa Clara, CA 95054

Needs Haz Waste + HMBP inspections
10/28/13 @ 9:00am
Called "Candace Soles to schedule an inspection

Mailing Address
COHERENT INC
P O BOX 54980
SANTA CLARA CA 95056

Business Status: Approval Pending
Account No. : 114735
Expiration Date: 10/22/2013
License:
Phone No.: (408) 764-4000
Alt. Phone No.:
Fire Area (Sta.): Sta 10
Inspection Area (Zone): FP

OWNER INFORMATION

Owner 1: Candace Soles
Address:
Bus. Owner:
Prop. Owner:
Title: Fire Contact
Phone: (408) 764-4415
Cell / Pager #:

ADDITIONAL INFORMATION

Fax No. (408) 764-4830
E-Mail: dennis.carluen@coherent.com
Business Type: Business Services/Admin Office
Occupancy:

General Fees		FIRE PERMIT FEES		Haz. Mat. Fees	
☐ 01. Automobile Wrecking Yard	193.90	☐ 05. Combustible Liquids (Class 2 or 3A), Inside > 25 gal.	155.60		
☐ 02. Battery Systems, Lead-Acid	128.20	■ 06. Combustible Liquids (Class 2 or 3A), Outside > 60 gal.	155.60		
☐ 03. Cellulose Nitrate Storage	117.35	☐ 08. Compressed Flammable Gas > 200 cu. ft.	155.60		
☐ 04. Combustible Fiber Storage	181.10	☐ 50. Corrosives > 55 gal. or 200 cu. ft. or 500 lbs.	155.60		
☐ 09. Dry Cleaning Plant	162.80	☒ 19. Cryogens - See Table 105-B Add	155.60		
☐ 10. Dust Producing Operations	91.85	☐ 12. Flammable Liquids, Inside: 5 gal. or more	155.60		
☐ 14. Fruit Ripening	159.15	☐ 13. Flammable Liquids, Outside: 10 gal. or more	155.60		
☐ 15. Garages (Repair)	155.60	☐ 51. Flammable Solids > 10 lbs.	155.60		
☐ 27. High Piled Combustible Storage	245.45	☐ 07. Inert Asphyxiant Gas > 6000 cu. ft.	155.60		
☐ 49. Hot Work Operations	124.60	☒ 28. Liquid Petroleum Gas - Any Amount Add	155.60		
☐ 29. Lumber Yard > 100,000 board feet	193.90	☐ 82. Moderately Toxic Gas > 20 cu. ft.	155.60		
☐ 30. Magnesium Working > 10 lbs.	119.15	☐ 23. Organic Peroxides	155.60		
☐ 35. Organic Coatings	168.25	☐ 84. Other Health Hazards > 55 gal. or 650 cu. ft. or 500 lbs.	155.60		
☐ 42. Other State Mandated Inspection (9-14 persons)	114.75	☒ 24. Oxidizing Materials > 0.0 gal. or > 504 cu. ft. or > 0.0 lbs. Add	155.60		
☐ 43. Other State Mandated Inspection (15 or more persons)	308.70	☐ 26. Pyrophorics	155.60		
☐ 36. Ovens (Industrial Baking and Drying)	117.35	☐ 53. Radioactives (See SCMFEC Sec. 105.6.48)	155.60		
☐ 37. Places of Assembly > 49 persons	142.85	☐ 54. Toxic / Highly Toxic Material, Including Gases	155.60		
☐ 40. Refrigeration Equipment	91.85	☐ 55. Underground Tanks for Hazardous Materials	362.65		
☐ 41. Spraying or Dipping Operations	180.10	☐ 55a Underground Tanks for Hazardous Materials (Each Add.)	100.10		
☐ 45a Waste Handling Facilities	176.30	☐ 56. Unstable / Reactive Material	155.60		
☐ 46a. Comb. Storage incl. Tires >2500 cu. ft.	117.35	☐ 86. Water Reactive	155.60		
☐ 47. Wood Products Storage > 200 cu. ft.	91.85				
☐ 48. Tire Rebuilding Facilities	155.60				
■ 92. Light/Ordinary Hazardous Occ	96,000 sq. ft.	☐ 97. Multi-Story Structures > 3 stories (other than high-rise) (per floor)	165.80		
☐ 93. Extra Hazard Occupancy	sq. ft.				
☐ 95. R-1 Occupancy (Per Unit)	19.00				
☐ 96. High-Rise Structure (including R-1) (per floor)	160.70				

EMERGENCY CONTACTS

Name Paul Cutajar	**Title**	**Phone No.** (408) 591-6789	**Cell. No.** (650) 631-7630
Name Javier Robledo	**Title**	**Phone No.** (408) 590-9002	**Cell. No.** (408) 729-0248
Name Joseph Fraizer	**Title**	**Phone No.** (408) 461-6716	**Cell. No.** (650) 968-4589
Name Candace Soles	**Title**	**Phone No.** (408) 591-7218	**Cell. No.** (408) 247-5471

* Do NOT Inspect in * 2013

FIRE INSPECTION FORM

Santa Clara Fire Department

* Haz Mat Division * Inspects in 2013

INSPECTIONS

Account No. 114735 **Business Name** Coherent Inc **Address** 5200 Patrick Henry Dr

Program/Type/Vios:

Inspector (Name/Rig):

FIRE DETECTION/SUPPRESSION SYSTEMS

☐ Carbon Dioxide	☐ Fire Alarm - Manual	☐ Sprinkler <= 100 Heads
☐ Clean Agent:	☐ Fire Door - Roll or Slide	☐ Sprinkler > 100 Heads
☐ Dry Chem - Hood and Duct	☐ Fire Hydrant - Private	☐ Standpipe - Dry
☐ Dry Chem - Industrial	☐ Liquid - Hood and Duct	☐ Standpipe - Wet
☐ Fire Alarm - Automatic	☐ Other:	

ZONE 4 BUSINESSES

☐ **ADD this business to Zone 4** (no inspections required) Business Description (if Contract Labor or Other): Office Space

Business Type: ☐ Phone No. or Answering Service Only ☐ Contract Labor Only (no property or equipment) ☐ P.O. Box Only ☐ Other

☐ APPROVED ☐ DISAPPROVED Date: _____ By: _____

HAZARDOUS MATERIALS DIVISION ONLY

General CUPA Information

■ Business Plan Required	Date Last Rec'd 04/01/2011	EPA ID Number:	
☐ RCRA SQG		☐ Recycler	Date of Last Notification
☐ RCRA LQG		☐ Recycle On-Site	
☐ Non-RCRA		☐ Recycle Off-Site	

OBSERVATIONS:

TIERED PERMITTING

Highest Tier: ☐ PBR ☐ CA ☐ CE

OBSERVATIONS:

ADDITIONAL INFORMATION

☐ UST: No.: ■ AST: No.: 1 ☐ SPCC Required

CUPA FEES

☐ 57. Underground Tank State Surcharge No.:	15/ea	☐ 67. Haz. Waste Generator - Less Than 5 Tons/yr	186.75
■ 58. Unified Program State Surcharge	35.00	☐ 68. Haz. Waste Generator - 5 to Less Than 25 Tons/yr	350.45
☐ 59. Above Ground Petroleum Storage Tanks (1320-10K Gal.)	116.80	☐ 69. Haz. Waste Generator - 25 to Less Than 50 Tons/yr	377.70
☐ 60. Above Ground Petroleum Storage Tanks (>10K Gal.)	171.37	☐ 70. Haz. Waste Generator - 50 to Less Than 250 Tons/yr	473.20
☐ 62. Permit by Rule	445.95	☐ 71. Haz. Waste Generator - 250 to Less Than 500 Tons/yr	486.85
☐ 62a. Permit by Rule - Each Add. Unit	72.80/ea	☐ 72. Haz. Waste Generator - 500 to Less Than 1,000 Tons/yr	486.85
☐ 63. Conditional Authorization	323.20	☐ 73. Haz. Waste Generator - 1,000 to Less Than 2,000 Tons/yr	486.85
☐ 63a. Conditional Authorization - Each Add. Unit	72.80/ea	☐ 74. Haz. Waste Generator - 2,000 or More Tons/yr	486.85
☐ 64. Conditional Exemption	137.65	☐ 79. CalARP State Surcharge	270.00
☐ 64a. Conditional Exemption - Each Add. Unit	59.20/ea	☐ 80. CalARP	287.00
☐ 65. Hazardous Waste Generator - Used Oil Only	164.95	■ 99. Harzardous Materials Management Plan Required	73.70
☐ 66. Hazardous Waste Generator - Less Than 100 kg/yr	137.65		

NOTES

J BL# 114735

California Environmental Reporting System (CERS) — Business Activities

Site Identification

Coherent Inc
5200 Patrick Henry Dr
Santa Clara, CA 95054
County
Santa Clara

CERS ID
10120807
EPA ID Number
CAD094979135

Submittal Status

Submitted on 11/26/2013 by *Candace Soles* of Coherent Inc (Santa Clara, CA)

Hazardous Materials

Does your facility have on site (for any purpose) at any one time, hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or is regulated under more restrictive inventory local reporting requirements (shown below if present); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	**Yes**

Underground Storage Tank(s) (UST)

Does your facility own or operate underground storage tanks?	**No**

Hazardous Waste

Is your facility a Hazardous Waste Generator?	**Yes**
Does your facility treat hazardous waste on-site?	**No**
Is your facility's treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	**No**
Does your facility consolidate hazardous waste generated at a remote site?	**No**
Does your facility need to report the closure/removal of a tank that was classified as hazardous waste and cleaned on-site?	**No**
Does your facility generate in any single calendar month 1,000 kilograms (kg) (2,200 pounds) or more of federal RCRA hazardous waste, or generate in any single calendar month, or accumulate at any time, 1 kg (2.2 pounds) of RCRA acute hazardous waste; or generate or accumulate at any time more than 100 kg (220 pounds) of spill cleanup materials contaminated with RCRA acute hazardous waste.	**Yes**
Is your facility a Household Hazardous Waste (HHW) Collection site?	**No**

Excluded and/or Exempted Materials

Does your facility recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)?	**No**
Does your facility own or operate ASTs above these thresholds? Store greater than 1,320 gallons of petroleum products (new or used) in aboveground tanks or containers.	**No**
Does your facility have Regulated Substances stored onsite in quantities greater than the threshold quantities established by the California Accidental Release prevention Program (CalARP)?	**No**

Additional Information

No additional comments provided.

California Environmental Reporting System (CERS) — Business Owner Operator

Facility/Site

Coherent Inc
5200 Patrick Henry Dr
Santa Clara, CA 95054

CERS ID
10120807

Submittal Status

Submitted on 11/26/2013 by *Candace Soles* of Coherent Inc (Santa Clara, CA)

Identification

Coherent Inc

Operator Phone	Business Phone	Business Fax	Beginning Date	Ending Date	
(408) 764-4000	(408) 764-4000	(408) 764-4811			
Dun & Bradstreet	**SIC Code**	**Primary NAICS**			
043719210	3699				

Facility/Site Mailing Address

5100 Patrick Henry Dr
Santa Clara, CA 95054

Primary Emergency Contact

Willy Pascua
Title
Facilities Engineer / Incident Commander

Business Phone	24-Hour Phone	Pager Number
(408) 764-4601		N/A

Owner

Coherent Inc
(408) 764-4000
5100 Patrick Henry Drive
Santa Clara, CA 95054

Secondary Emergency Contact

Candace Soles
Title
EH&S Manager

Business Phone	24-Hour Phone	Pager Number
(408) 764-4415		N/A

Billing Contact

Candace Soles
(408) 764-4415
Same as above
Santa Clara, CA 95054

Environmental Contact

Candace Soles
(408) 764-4415 candace.soles@coherent.com
5100 Patrick Henry Dr
Santa Clara, CA 95054

Name of Signer	Signer Title	Document Preparer
Candace Soles	EHS Manager	Candace Soles

Additional Information

Locally-collected Fields

Some or all of the following fields may be required by your local regulator(s).

Property Owner

Matteson Realty Services Inc
Phone
(650) 458-2600
Mailing Address
1825 South Grant Street Suite 700
San Mateo, CA 94402

Assessor Parcel Number (APN)

Number of Employees
0
Facility ID
43-010-701776

Non-Waste Hazardous Materials Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-701776**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant	**Acetone** CAS No 67-64-1	**Gallons** State Liquid Type Pure	**2** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	1 Pressue Ambient Temperature Ambient	Waste Code	- Fire - *Acute Health*				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant	**Isopropyl Alcohol** CAS No 67-63-0	**Gallons** State Liquid Type Pure	**3** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	2 Pressue Ambient Temperature Ambient	Waste Code	- Fire				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant, Other Health Hazard	**Methanol** CAS No 67-56-1	**Gallons** State Liquid Type Pure	**2** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	1 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Non-Waste Hazardous Materials Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-701776**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases Other	**ARGON COMPRESSED** CAS No 7440-37-1	**Cu. Feet** State Gas Type Pure	**800** Storage Container Cylinder Days on Site: 365	**200**	600 Pressue < Ambient Temperature Ambient	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Cryogen	**NITROGEN, LIQUID** CAS No 7727-37-9	**Gallons** State Liquid Type Pure	**134** Storage Container Cylinder Days on Site: 365	**67**	100 Pressue < Ambient Temperature Cryogenic	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Oxidizing, Class 2	**OXYGEN** CAS No 7782-44-7	**Cu. Feet** State Gas Type Pure	**2,400** Storage Container Cylinder Days on Site: 365	**200**	2,400 Pressue < Ambient Temperature Ambient	Waste Code	- Fire - Pressure Release				

Non-Waste Hazardous Materials Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-701776**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II, Irritant	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Non-Waste Hazardous Materials Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-701776**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
DOT: 2.1 - Flammable Gases Flammable Gas	**LIQUEFIED PETROLEUM GAS (LPG)** CAS No *74-98-6*	**Pounds** State Gas Type Pure	**96** Storage Container Cylinder Days on Site: 365	**32**	64 Pressue > Ambient Temperature Ambient	Waste Code	- Fire - Pressure Release			

Hazardous Wastes Inventory Matrix Report

CERS Business/Org: **Coherent Inc**
Facility Name: **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID: **10120807**
Facility ID: **43-010-701776**
Status: **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 4.1 - Flammable Solids	**Contaminated Debris**	**Pounds**	**5**	**10**	2	30	- Fire	Acetone	25 %		67-64-1
	CAS No	State	Storage Container		Pressue	Waste Code		Methanol	25 %		67-56-1
Flammable Solid		Solid	Can		Ambient	352		2-Propanol	50 %		8013-70-5
		Type			Temperature						
		Waste	Days on Site: 365		Ambient						

UNIDOCS
FACILITY INFORMATION
BUSINESS ACTIVITIES PAGE

I. FACILITY IDENTIFICATION

FACILITY ID # *(Agency Use Only)*	1.	EPA ID # (Hazardous Waste Only) CAD094979135 2.
BUSINESS NAME *(Same as Facility Name or DBA - Doing Business As)* Coherent, Inc,	3.	
BUSINESS SITE ADDRESS 5200 Patrick Henry Drive	103.	
BUSINESS SITE CITY Santa Clara	104.	CA ZIP CODE 95054 105.

II. ACTIVITIES DECLARATION

NOTE: If you check YES to any part of this list, please submit the Business Owner/Operator Identification page.

Does your facility…		If Yes, please complete these pages of the UPCF…
A. HAZARDOUS MATERIALS Have on site (for any purpose) at any one time, hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	☒ YES ☐ NO 4.	HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION
B. REGULATED SUBSTANCES Have Regulated Substances stored onsite in quantities greater than the threshold quantities established by the California Accidental Release Prevention Program (CalARP)?	☐ YES ☒ NO 4a.	Coordinate with your local agency responsible for CalARP.
C. UNDERGROUND STORAGE TANKS (USTs) Own or operate underground storage tanks?	☐ YES ☒ NO 5.	UST OPERATING PERMIT APPLICATION – FACILITY INFORMATION UST OPERATING PERMIT APPLICATION – TANK INFORMATION
D. ABOVE GROUND PETROLEUM STORAGE Own or operate ASTs above these thresholds: Store greater than 1,320 gallons of petroleum products (new or used) in aboveground tanks or containers?	☐ YES ☒ NO 8.	No form required to CUPAs
E. HAZARDOUS WASTE Generate hazardous waste?	☒ YES ☐ NO 9.	EPA ID NUMBER – provide at top of this page
Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC §25143.2)?	☐ YES ☒ NO 10.	RECYCLABLE MATERIALS REPORT (one per recycler)
Treat hazardous waste onsite?	☐ YES ☒ NO 11.	ONSITE HAZARDOUS WASTE TREATMENT NOTIFICATION – FACILITY PAGE ONSITE HAZARDOUS WASTE TREATMENT NOTIFICATION – UNIT PAGE (one page per unit)
Perform treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	☐ YES ☒ NO 12.	CERTIFICATION OF FINANCIAL ASSURANCE
Consolidate hazardous waste generated at a remote site?	☐ YES ☒ NO 13.	REMOTE WASTE CONSOLIDATION SITE ANNUAL NOTIFICATION
Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned onsite?	☐ YES ☒ NO 14.	HAZARDOUS WASTE TANK CLOSURE CERTIFICATION
Generate in any single calendar month 1,000 kilograms (kg) (2,200 pounds) or more of federal RCRA hazardous waste, or generate in any single calendar month, or accumulate at any time, 1 kg (2.2 pounds) of RCRA acute hazardous waste; or generate or accumulate at any time more then 100 kg (220 pounds) of spill cleanup materials contaminated with RCRA acute hazardous waste?	☐ YES ☒ NO 14a.	Obtain federal EPA ID Number, file Biennial Report (EPA Form 8700-13A/B), and satisfy requirements for RCRA Large Quantity Generator.
Serve as a Household Hazardous Waste (HHW) Collection site?	☐ YES ☒ NO 14b.	See CUPA for required forms.

F. LOCAL REQUIREMENTS (You may also be required to provide additional information by your CUPA or local agency.) 15.

UNIDOCS
FACILITY INFORMATION

BUSINESS OWNER/OPERATOR IDENTIFICATION PAGE

I. IDENTIFICATION

FACILITY ID # *(Agency Use Only)* 1.		BEGINNING DATE 100. 3/30/2011	ENDING DATE 101. 03/04/2013
BUSINESS NAME *(Same as Facility Name or DBA – Doing Business As)* 3. Coherent, Inc.			BUSINESS PHONE 102. (408) 764-4000
BUSINESS SITE ADDRESS 103. 5200 Patrick Henry Drive			BUSINESS FAX 102a. (408) 764-4811
BUSINESS SITE CITY 104. Santa Clara	CA	ZIP CODE 105. 95054	COUNTY 108. Santa Clara
DUN & BRADSTREET 106. 043719210		PRIMARY SIC 107. 3699	PRIMARY NAICS 107a.
BUSINESS MAILING ADDRESS 108a. 5100 Patrick Henry Drive			
BUSINESS MAILING CITY 108b. Santa Clara		STATE 108c. CA	ZIP CODE 108d. 95054
BUSINESS OPERATOR NAME 109. Coherent, Inc.			BUSINESS OPERATOR PHONE 110. (408) 764-4000

II. BUSINESS OWNER

OWNER NAME 111. Coherent, Inc.		OWNER PHONE 112. (408) 764-4000
OWNER MAILING ADDRESS 113. 5100 Patrick Henry Drive		
OWNER MAILING CITY 114. Santa Clara	STATE 115. CA	ZIP CODE 116. 95054

III. ENVIRONMENTAL CONTACT

CONTACT NAME 117. Candace Soles		CONTACT PHONE 118. (408) 764-4415
CONTACT MAILING ADDRESS 119. 5100 Patrick Henry Drive		CONTACT EMAIL 119a. candace.soles@coherent.com
CONTACT MAILING CITY 120. Santa Clara	STATE 121. CA	ZIP CODE 122. 95054

IV. EMERGENCY CONTACTS

-PRIMARY-	-SECONDARY-
NAME 123. Willy Pascua	NAME 128. Candace Soles
TITLE 124. Facilities Engineer / Incident Commander	TITLE 129. EH&S Manager
BUSINESS PHONE 125. (408) 764-4601	BUSINESS PHONE 130. (408) 764-4415
24-HOUR PHONE 126.	24-HOUR PHONE 131.
PAGER # 127. ( ) NA	PAGER # 132. ( ) NA

ADDITIONAL LOCALLY COLLECTED INFORMATION: 133.

Billing Address: 5100 Patrick Henry Drive, Santa Clara, CA 95054

Property Owner: Matteson Realty Services Inc (Anne Risberg contact) Phone No.: (650) 802-1800

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE Candace Soles	DATE 134. 3/4/13	NAME OF DOCUMENT PREPARER 135. Candace Soles
NAME OF SIGNER (print) 136. Candace Soles	TITLE OF SIGNER 137. EH&S Corporate Manager	

All Permits for 5200 PATRICK HENRY

Permit	Recd	Address	Facility	Stat	Type	Installer	Review
Building		Room / Area	Description of Work				
FIR1983-00390	09/02/83	5200 PATRICK HENRY DR	DYSAN OFFICE	FNL	AS/OH		10/03/83 UNKN
		REMODEL					
FIR1984-00265	05/09/84	5200 PATRICK HENRY DR	DYSAN	FNL	BLDG		05/17/84 UNKN
		FLOPPY ROOM EXPANSION					
FIR1984-00597	10/05/84	5200 PATRICK HENRY DR	DYSAN	FNL	AS/OH	GEO M ROBINSON	10/23/84 JVAL
FLOPPY BUILDING		SEE P84-634 COMBINED					
FIR1984-00634	10/25/84	5200 PATRICK HENRY DR	DYSAN	FNL	AS/OH	GEO M ROBINSON	10/31/84 JVAL
		COATING ROOM					
FIR1988-00440	08/16/88	5200 PATRICK HENRY DR	XIDEX CORP	FNL	TANK/REM	ERICKSON,INC	08/18/88 JVAL
			TWO 7,300 GAL. MEK; ONE 7,300 GAL. CYCLO,D2}ONE 7,300 GAL. CYCLO; TWO 10,000 GAL DIESEL				
FIR1988-00447	08/22/88	5200 PATRICK HENRY DR	XIDEX	FNL	AS/OH	TEBAR	09/13/88 JVAL
			RACKS				
FIR1988-00563	10/03/88	5200 PATRICK HENRY DR	XIDEX	FNL	AS/OH	TEBAR	10/14/88 JVAL
		AIR SHOWERS					
FIR1990-00657	11/27/90	5200 PATRICK HENRY DR	XIDEX	FNL	AS/OH	TEBAR INC	12/07/90 KBRA
FIR1990-00696	12/18/90	5200 PATRICK HENRY DR	XIDEX AN ANACOMP COMPANY	FNL	HMC/C	XIDEX CORP	01/15/91 KBRA
			COMPLETE BUSINESS CLOSURE}$100 FEE PAID DIRECTLY TO REVENUE AND COLLECTIONS DUE}TO THE FACT THAT CHECK WAS GOING TO EXPIRE PER JULIE}REVIEWED W/L MONETTE 1/15/91				
FIR1992-00396	06/29/92	5200 PATRICK HENRY DR	FUJITSU (S.B.A.)	FNL	BLDG	DEVCON	07/07/92 KBRA
		COMPUTER RM. ADDITION	INTERIOR IMPROVEMENTS				

All Permits for 5200 PATRICK HENRY

Permit / Building	Recd	Address / Room / Area	Facility / Description of Work	Stat	Type	Installer	Review
FIR1992-00403	07/01/92	5200 PATRICK HENRY DR	FUJITSU/FSBA-FPSA	FNL	AS/OH	GEO.M.ROBINSON	07/06/92 KBRA
FIR1992-00438	07/21/92	5200 PATRICK HENRY DR	FUJITSU	FNL	FPS/HALON	C A SABAH	08/03/92 KBRA
			COMPUTER ROOM UNDERFLOOR				
FIR1995-00763	10/30/95	5200 PATRICK HENRY DR	FUJITSU	FNL	AS/OH	ALLGARD FIRE PROTECTION	11/14/95 SBET
FIR1999-00755	08/23/99	5200 PATRICK HENRY DR	FUJITSU	FNL	TANK/INST	OUT TO BID	09/01/99 SBET
			EQUIPD; INSTALL ONE 500 GALLON DIESEL TANK FOR EMERGENCY GEN.}REVIEWED WITH LARRY MONETTE				
FIR1999-00859	09/28/99	5200 PATRICK HENRY DR	FUJITSU	FNL	AS/OH	FIREPRO SYSTEMS	10/04/99 SBET
		GENERATOR ENCLOSURE/REAR OF FACILITY					
FIR2008-00033	01/11/08	5200 PATRICK HENRY DR	COHERENT	FNL	AS/OH	CINTAS FIRE PROTECTION	02/04/08 DPA
ENTIRE		THROUGHOUT	Add ceiling pendant throughout existing building. For new wall and ceiling layout for new tenant. Existing shell system has upright protection and is to remain. 567 heads total.				
FIR2008-00087	01/30/08	5200 PATRICK HENRY DR	COHERENT	FNL	ALARM	CINTAS FIRE PROTECTION	02/29/08 DPA
		OPEN OFFICES	Fire sprinkler monitoring system - 24 devices				
FIR2010-00391	07/14/10	5200 PATRICK HENRY DR	COHERENT	FNL	AS/OH	ADANAC FIRE PROTECTION, I	
		R&D AREA	Install 6 (N) and relocate 8 (E) sprinklers for T.I.				
FIR2012-00277	04/12/12	5200 PATRICK HENRY DR	COHERENT	FNL	AS/OH	LIFEGUARD FIRE PROTECTION	
		CONFERENCE ROOMS	Add (3) sprinkler heads for new conference room layouts				

All Permits for 5200 PATRICK HENRY

Permit / Building	Recd	Address / Room / Area	Facility / Description of Work	Stat	Type	Installer	Review
FIR2021-00231	03/08/21	5200 PATRICK HENRY DR	5200 PATRICK HENRY DR DEMO 500 FIRE SPRINKLERS FOR MARKET READY, MODIFYING SSU SPACING IF NEEDED TO 130 SQFT. UPSIZE INTERIOR PIPING DUE TO A NEW BACKFLOW INSTALLATION	**ISS**	AS/OH	PACIFIC COAST FIRE	03/16/21 AHY 04/15/21 DPA 05/11/21 DPA 05/17/21 DPA 05/26/21 DPA 06/04/21 DPA
FIR2021-00275	03/23/21	5200 PATRICK HENRY DR	5200 PATRICK HENRY DR DEMO/MODIFICATION TO EXISTING FIRE ALARM SYSTEM. REMOVE (4) DOOR HOLDERS & (4) SMOKE DETECTORS. NO NEW EQUIPMENT.	FNL	ALARM	EMT ELECTRIC, INC	04/15/21 JHO
FIR2021-00360	04/08/21	5200 PATRICK HENRY DR	5200 PATRICK HENRY DR Installation of a new 10 inch Wilkins 475DA backflow preventer and a new 4-way FDC for an existing building	**ISS**	AS/UG	PACIFIC COAST FIRE	05/11/21 DPA 05/17/21 DPA 05/26/21 DPA 06/04/21 DPA

Total Count: 22

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 1/5/2015 10:06 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant	**Acetone** CAS No 67-64-1	**Gallons** State Liquid Type Pure	**2** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	1 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant	**Isopropyl Alcohol** CAS No 67-63-0	**Gallons** State Liquid Type Pure	**3** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	2 Pressue Ambient Temperature Ambient	Waste Code	- Fire				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant, Other Health Hazard	**Methanol** CAS No 67-56-1	**Gallons** State Liquid Type Pure	**2** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	1 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 1/5/2015 10:06 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases Other	**ARGON COMPRESSED** CAS No 7440-37-1	**Cu. Feet** State: Gas Type: Pure	**800** Storage Container: Cylinder Days on Site: 365	**200**	600 Pressue: < Ambient Temperature: Ambient	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Cryogen	**NITROGEN, LIQUID** CAS No 7727-37-9	**Gallons** State: Liquid Type: Pure	**134** Storage Container: Cylinder Days on Site: 365	**67**	100 Pressue: < Ambient Temperature: Cryogenic	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Oxidizing, Class 2	**OXYGEN** CAS No 7782-44-7	**Cu. Feet** State: Gas Type: Pure	**2400** Storage Container: Cylinder Days on Site: 365	**200**	2400 Pressue: < Ambient Temperature: Ambient	Waste Code	- Fire - Pressure Release				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 1/5/2015 10:06 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II, Irritant	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 1/5/2015 10:06 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.1 - Flammable Gases Flammable Gas	**LIQUEFIED PETROLEUM GAS (LPG)** CAS No 74-98-6	**Pounds** State Gas Type Pure	**96** Storage Container Cylinder Days on Site: 365	**32**	64 Pressue > Ambient Temperature Ambient	Waste Code	- Fire - Pressure Release				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 1/5/2015 10:06 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 4.1 - Flammable Solids	**Contaminated Debris**	**Pounds**	**5**	**10**	2	30	- Fire	Acetone	25 %		67-64-1
	CAS No	State	Storage Container		Pressue	Waste Code		Methanol	25 %		67-56-1
Flammable Solid		Solid	Can		Ambient	352		2-Propanol	50 %		8013-70-5
		Type			Temperature						
		Waste	Days on Site: 365		Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 2/20/2015 2:28 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant	**Acetone** CAS No 67-64-1	**Gallons** State Liquid Type Pure	**1** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	1 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant	**Isopropyl Alcohol** CAS No 67-63-0	**Gallons** State Liquid Type Pure	**1** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	1 Pressue Ambient Temperature Ambient	Waste Code	- Fire				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant, Other Health Hazard	**Methanol** CAS No 67-56-1	**Gallons** State Liquid Type Pure	**1** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	1 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 2/20/2015 2:28 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases Other	**ARGON COMPRESSED** CAS No 7440-37-1	**Cu. Feet** State: Gas Type: Pure	**400** Storage Container: Cylinder Days on Site: 365	**200**	200 Pressue: < Ambient Temperature: Ambient	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Cryogen	**NITROGEN, LIQUID** CAS No 7727-37-9	**Gallons** State: Liquid Type: Pure	**460** Storage Container: Cylinder Days on Site: 365	**230**	230 Pressue: < Ambient Temperature: Cryogenic	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Oxidizing, Class 2	**OXYGEN** CAS No 7782-44-7	**Cu. Feet** State: Gas Type: Pure	**1200** Storage Container: Cylinder Days on Site: 365	**200**	600 Pressue: < Ambient Temperature: Ambient	Waste Code	- Fire - Pressure Release				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 2/20/2015 2:28 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II, Irritant	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 3/9/2017 1:01 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases Other	**ARGON COMPRESSED** CAS No 7440-37-1	**Cu. Feet** State: Gas Type: Pure	**200** Storage Container: Cylinder Days on Site: 365	**200**	150 Pressue: < Ambient Temperature: Ambient	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Cryogen	**NITROGEN, LIQUID** CAS No 7727-37-9	**Gallons** State: Liquid Type: Pure	**120** Storage Container: Tank Inside Building Days on Site: 365	**60**	60 Pressue: < Ambient Temperature: Cryogenic	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Oxidizing, Class 2	**OXYGEN** CAS No 7782-44-7	**Cu. Feet** State: Gas Type: Pure	**200** Storage Container: Cylinder Days on Site: 365	**200**	100 Pressue: < Ambient Temperature: Ambient	Waste Code	- Fire - Pressure Release				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 3/9/2017 1:01 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II, Irritant	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 3/28/2013 1:27 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 8 - Corrosives (Liquids and Solids) Corrosive	**Contaminated Debris** CAS No	**Pounds** State: Solid Type: Waste	**1** Storage Container: Can Days on Site: 365	**2**	0.5 Pressue: Ambient Temperature: Ambient	25 Waste Code	- Reactive				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 3/28/2013 1:27 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant	**Acetone** CAS No 67-64-1	**Gallons** State: Liquid Type: Pure	**4** Storage Container: Plastic Bottle or Jug Days on Site: 365	**1**	3 Pressue: Ambient Temperature: Ambient	Waste Code	- Fire - Acute Health				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant	**Isopropyl Alcohol** CAS No 67-63-0	**Gallons** State: Liquid Type:	**4** Storage Container: Plastic Bottle or Jug Days on Site: 365	**1**	3 Pressue: Ambient Temperature: Ambient	Waste Code	- Fire				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant, Other Health Hazard	**Methanol** CAS No 67-56-1	**Gallons** State: Liquid Type: Pure	**4** Storage Container: Plastic Bottle or Jug Days on Site: 365	**1**	3 Pressue: Ambient Temperature: Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 3/28/2013 1:27 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases Other	**ARGON COMPRESSED** CAS No 7440-37-1	**Cu. Feet** State Gas Type Pure	**5400** Storage Container Cylinder Days on Site: 365	**600**	3600 Pressue < Ambient Temperature Ambient	Waste Code	- Pressure Release - Acute Health				
DOT: 2.1 - Flammable Gases Flammable Gas	**LIQUEFIED PETROLEUM GAS (LPG)** CAS No 74-98-6	**Pounds** State Gas Type Pure	**20** Storage Container Cylinder Days on Site: 365	**10**	10 Pressue > Ambient Temperature Ambient	Waste Code	- Fire - Pressure Release				
DOT: 2.2 - Nonflammable Gases Cryogen	**NITROGEN, LIQUID** CAS No 7727-37-9	**Gallons** State Liquid Type Pure	**434** Storage Container Cylinder Days on Site: 365	**217**	300 Pressue > Ambient Temperature Cryogenic	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Oxidizing, Class 2	**OXYGEN** CAS No 7782-44-7	**Cu. Feet** State Gas Type Pure	**5000** Storage Container Cylinder Days on Site: 365	**600**	3000 Pressue < Ambient Temperature Ambient	Waste Code	- Fire - Pressure Release				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 3/28/2013 1:27 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II, Irritant	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 3/30/2010 4:53 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II, Irritant	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 3/31/2016 3:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases Other	**ARGON COMPRESSED** CAS No 7440-37-1	**Cu. Feet** State: Gas Type: Pure	**200** Storage Container: Cylinder Days on Site: 365	**200**	150 Pressue: < Ambient Temperature: Ambient	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Cryogen	**NITROGEN, LIQUID** CAS No 7727-37-9	**Gallons** State: Liquid Type: Pure	**120** Storage Container: Tank Inside Building Days on Site: 365	**60**	60 Pressue: < Ambient Temperature: Cryogenic	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Oxidizing, Class 2	**OXYGEN** CAS No 7782-44-7	**Cu. Feet** State: Gas Type: Pure	**200** Storage Container: Cylinder Days on Site: 365	**200**	100 Pressue: < Ambient Temperature: Ambient	Waste Code	- Fire - Pressure Release				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 3/31/2016 3:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II, Irritant	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 7/27/2011 4:00 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 8 - Corrosives (Liquids and Solids) Corrosive	**Contaminated Debris** CAS No	**Pounds** State: Solid Type: Waste	**1** Storage Container: Can Days on Site: 365	**2**	0.5 Pressue: Ambient Temperature: Ambient	25 Waste Code	- Reactive				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 7/27/2011 4:00 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases Other	**ARGON COMPRESSED** CAS No 7440-37-1	**Cu. Feet** State Gas Type Pure	**5400** Storage Container Cylinder Days on Site: 365	**600**	3600 Pressue < Ambient Temperature Ambient	Waste Code	- Pressure Release - Acute Health				
DOT: 2.1 - Flammable Gases Flammable Gas	**LIQUEFIED PETROLEUM GAS (LPG)** CAS No 74-98-6	**Pounds** State Gas Type Pure	**20** Storage Container Cylinder Days on Site: 365	**10**	10 Pressue > Ambient Temperature Ambient	Waste Code	- Fire - Pressure Release				
DOT: 2.2 - Nonflammable Gases Cryogen	**NITROGEN, LIQUID** CAS No 7727-37-9	**Gallons** State Liquid Type Pure	**434** Storage Container Cylinder Days on Site: 365	**217**	300 Pressue > Ambient Temperature Cryogenic	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Oxidizing, Class 2	**OXYGEN** CAS No 7782-44-7	**Cu. Feet** State Gas Type Pure	**5000** Storage Container Cylinder Days on Site: 365	**600**	3000 Pressue < Ambient Temperature Ambient	Waste Code	- Fire - Pressure Release				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 7/27/2011 4:00 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II, Irritant	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 10/30/2017 10:49 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases Other	**ARGON COMPRESSED** CAS No 7440-37-1	**Cu. Feet** State: Gas Type: Pure	**200** Storage Container: Cylinder Days on Site: 365	**200**	150 Pressue: < Ambient Temperature: Ambient	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Oxidizing, Class 2	**OXYGEN** CAS No 7782-44-7	**Cu. Feet** State: Gas Type: Pure	**200** Storage Container: Cylinder Days on Site: 365	**200**	100 Pressue: < Ambient Temperature: Ambient	Waste Code	- Fire - Pressure Release				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 10/30/2017 10:49 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II, Irritant	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant	**Acetone** CAS No 67-64-1	**Gallons** State Liquid Type Pure	**2** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	1 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant	**Isopropyl Alcohol** CAS No 67-63-0	**Gallons** State Liquid Type Pure	**3** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	2 Pressue Ambient Temperature Ambient	Waste Code	- Fire				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant, Other Health Hazard	**Methanol** CAS No 67-56-1	**Gallons** State Liquid Type Pure	**2** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	1 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases Other	**ARGON COMPRESSED** CAS No 7440-37-1	**Cu. Feet** State: Gas Type: Pure	**800** Storage Container: Cylinder Days on Site: 365	**200**	600 Pressue: < Ambient Temperature: Ambient	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Cryogen	**NITROGEN, LIQUID** CAS No 7727-37-9	**Gallons** State: Liquid Type: Pure	**134** Storage Container: Cylinder Days on Site: 365	**67**	100 Pressue: < Ambient Temperature: Cryogenic	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Oxidizing, Class 2	**OXYGEN** CAS No 7782-44-7	**Cu. Feet** State: Gas Type: Pure	**2400** Storage Container: Cylinder Days on Site: 365	**200**	2400 Pressue: < Ambient Temperature: Ambient	Waste Code	- Fire - Pressure Release				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II, Irritant	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.1 - Flammable Gases Flammable Gas	**LIQUEFIED PETROLEUM GAS (LPG)** CAS No 74-98-6	**Pounds** State Gas Type Pure	**96** Storage Container Cylinder Days on Site: 365	**32**	64 Pressue > Ambient Temperature Ambient	Waste Code	- Fire - Pressure Release				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 4.1 - Flammable Solids	**Contaminated Debris**	**Pounds**	**5**	**10**	2	30	- Fire	Acetone	25 %		67-64-1
	CAS No	State	Storage Container		Pressue	Waste Code		Methanol	25 %		67-56-1
Flammable Solid		Solid	Can		Ambient	352		2-Propanol	50 %		8013-70-5
		Type			Temperature						
		Waste	Days on Site: 365		Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant	**Acetone** CAS No 67-64-1	**Gallons** State Liquid Type Pure	**2** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	1 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant	**Isopropyl Alcohol** CAS No 67-63-0	**Gallons** State Liquid Type Pure	**3** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	2 Pressue Ambient Temperature Ambient	Waste Code	- Fire				
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B, Irritant, Other Health Hazard	**Methanol** CAS No 67-56-1	**Gallons** State Liquid Type Pure	**2** Storage Container Plastic Bottle or Jug Days on Site: 365	**1**	1 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases Other	**ARGON COMPRESSED** CAS No 7440-37-1	**Cu. Feet** State: Gas Type: Pure	**800** Storage Container: Cylinder Days on Site: 365	**200**	600 Pressue: < Ambient Temperature: Ambient	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Cryogen	**NITROGEN, LIQUID** CAS No 7727-37-9	**Gallons** State: Liquid Type: Pure	**134** Storage Container: Cylinder Days on Site: 365	**67**	100 Pressue: < Ambient Temperature: Cryogenic	Waste Code	- Pressure Release - Acute Health				
DOT: 2.2 - Nonflammable Gases Oxidizing, Class 2	**OXYGEN** CAS No 7782-44-7	**Cu. Feet** State: Gas Type: Pure	**2400** Storage Container: Cylinder Days on Site: 365	**200**	2400 Pressue: < Ambient Temperature: Ambient	Waste Code	- Fire - Pressure Release				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II, Irritant	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Fire - Acute Health				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.1 - Flammable Gases Flammable Gas	**LIQUEFIED PETROLEUM GAS (LPG)** CAS No 74-98-6	**Pounds** State Gas Type Pure	**96** Storage Container Cylinder Days on Site: 365	**32**	64 Pressue > Ambient Temperature Ambient	Waste Code	- Fire - Pressure Release				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 11/26/2013 9:37 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 4.1 - Flammable Solids	**Contaminated Debris**	**Pounds**	**5**	**10**	2	30	- Fire	Acetone	25 %		67-64-1
	CAS No	State	Storage Container		Pressue	Waste Code		Methanol	25 %		67-56-1
Flammable Solid		Solid	Can		Ambient	352		2-Propanol	50 %		8013-70-5
		Type			Temperature						
		Waste	Days on Site: 365		Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 12/11/2020 11:08 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Specific Target Organ Toxicity - Health Aspiration Hazard				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 12/11/2020 11:46 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Specific Target Organ Toxicity - Health Aspiration Hazard				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 12/22/2020 3:39 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Specific Target Organ Toxicity - Health Aspiration Hazard				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 12/22/2020 9:57 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Specific Target Organ Toxicity - Health Aspiration Hazard				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Coherent Inc**
Facility Name **Coherent Inc**
5200 Patrick Henry Dr, Santa Clara 95054

Chemical Location

CERS ID **10120807**
Facility ID **43-010-114735**
Status **Submitted** on 12/22/2020 3:40 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	***DIESEL FUEL** CAS No 0068334-30-5	**Gallons** State Liquid Type Pure	**500** Storage Container Other Days on Site: 365	**500**	475 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Specific Target Organ Toxicity - Health Aspiration Hazard				

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER

CASE SUMMARY

REPORT DATE | HAZARDOUS MATERIAL INCIDENT REPORT FILED WITH OES?

I. REPORTED BY -

UNKNOWN

CREATED BY

UNKNOWN

III. SITE LOCATION

FACILITY NAME

ANACOMP, INC. - SANTA CLARA

FACILITY ADDRESS

5200/5440 PATRICK HENRY DR
SANTA CLARA, CA 95054
SANTA CLARA COUNTY

FACILITY ID

ORIENTATION OF SITE TO STREET

CROSS STREET

V. SUBSTANCES RELEASED / CONTAMINANT(S) OF CONCERN

TRICHLOROETHYLENE (TCE)
DICHLOROETHENE (DCE)

VI. DISCOVERY/ABATEMENT

DATE DISCHARGE BEGAN

DATE DISCOVERED | HOW DISCOVERED | DESCRIPTION

DATE STOPPED | STOP METHOD | DESCRIPTION

VII. SOURCE/CAUSE

SOURCE OF DISCHARGE

CAUSE OF DISCHARGE

DISCHARGE DESCRIPTION

VIII. CASE TYPE

CASE TYPE

Soil
Other Groundwater (uses other than drinking water)

IX. REMEDIAL ACTION

NO REMEDIAL ACTIONS ENTERED

X. GENERAL COMMENTS

RP closed and removed remediation system and the wells June through August 1994.

File Nos. 2188.20 and 2189.8118 (SAH). Case was closed on March 23, 1994.

XI. CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION REPORTED HEREIN IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

XII. REGULATORY USE ONLY

LOCAL AGENCY CASE NUMBER | REGIONAL BOARD CASE NUMBER

43S0026

LOCAL AGENCY

UNKNOWN

REGIONAL BOARD

CONTACT NAME	INITIALS	ORGANIZATION_NAME	EMAIL ADDRESS
Regional Water Board	UUU	SAN FRANCISCO BAY RWQCB (REGION 2)	

ADDRESS
1515 CLAY ST SUITE 1400
OAKLAND, CA 94612

CONTACT DESCRIPTION

PHONE TYPE	PHONE NUMBER	EXTENSION
Office	(510)-622-2300	
SCP General Contact	(510)-622-2408	
UST General Contact	(510)-622-3277	

Back to Top

Privacy Policy

Contact Us

Conditions of Use

Accessibility

Copyright © 2021 State of California

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER

ANACOMP, INC. - SANTA CLARA (SL18203583) - (MAP)

SIGN UP FOR EMAIL

5200/5440 PATRICK HENRY DR
SANTA CLARA, CA 95054
SANTA CLARA COUNTY
CLEANUP PROGRAM SITE (INFO)
COMPLETED - CASE CLOSED AS OF 3/23/1994 - DEFINITION
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
SAN FRANCISCO BAY RWQCB (REGION 2) *(LEAD)* - CASE
CASEWORKER: Regional Water Board

Summary | Cleanup Action Report | Regulatory Activities | *Environmental Data (ESI)* | Site Maps / Documents | Community Involvement | *Related Cases*

Regulatory Profile

PRINTABLE CASE SUMM

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 3/23/1994 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
DICHLOROETHENE (DCE), TRICHLOROETHYLENE (TCE)

POTENTIAL MEDIA OF CONCERN
OTHER GROUNDWATER (USES OTHER THAN DRINKING WATER), SOIL

FILE LOCATION

DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, PROC

DWR GROUNDWATER SUB-BASIN NAME
Santa Clara Valley - Santa Clara (2-009.02)

CALWATER WATERSHED NAME
Santa Clara - Palo Alto (205.50)

Site History

RP closed and removed remediation system and the wells June through August 1994.

File Nos. 2188.20 and 2189.8118 (SAH). Case was closed on March 23, 1994.

Copyright © 2021 State of California

Drinking Water Must Meet Standards

The quality of drinking water is carefully regulated by the Federal Government. In 1974, Congress passed the Safe Drinking Water Act, requiring the USEPA to establish uniform standards for drinking water. The Safe Drinking Water Act was further amended in 1986 and 1996, adding even more stringent standards. In California, these standards are enforced by State Water Resources Control Board, Division of Drinking Water.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this public notice in a public place or distributing copies by hand or mail.

THERE ARE TWO TYPES OF DRINKING WATER STANDARDS.

PRIMARY STANDARDS are designed to protect public health. These standards specify the limits, called "Maximum Contaminant Levels" (MCLs) for substances in water that may be harmful to humans or affect their health if consumed in large quantities.

SECONDARY STANDARDS are based on aesthetic qualities of water such as color, taste and odor. These standards specify limits for substances that may affect consumer acceptance of the water. Both Primary and Secondary Standards are listed in this report.

It is important to the City of Santa Clara that you, the water consumer, have current and factual information about your water supply. In this latest issue of our report, we hope to further your understanding and strengthen your confidence in the quality and integrity of the water supplied to you by the City of Santa Clara. We take great pride in delivering the safest and highest quality water available.

Source Water Information

Q: Where does our water come from?

A: The City of Santa Clara has three separate sources of drinking water. Often, these sources are used interchangeably or are blended together. Altogether these sources provide an average of 16 million gallons of water per day to the homes, businesses, industries and institutions of Santa Clara. In 2020, about 41% of our water was treated surface water purchased from the Santa Clara Valley Water District (Valley Water), imported from the Sacramento-San Joaquin Delta, and from the San Francisco Public Utility Commission's (SFPUC) Hetch-Hetchy System, imported from the Sierra Nevada Mountains.

Water purchased from Valley Water serves primarily the southwesterly portion of the City. SFPUC Hetch-Hetchy water typically serves the area north of Highway 101. The remaining 59% is pumped from the City's system of 21 active wells serving the rest of Santa Clara. The map shows the general areas served by the different water sources.

THE CITY OF SANTA CLARA HAS THREE SEPARATE SOURCES OF DRINKING WATER.

CITY WELLS

The majority of water consumed in the City of Santa Clara is pumped from the City's system of deep wells. Well water is pulled up from groundwater (water that is located in aquifers which are waterfilled spaces between sand, gravel, silt and clay) deep in the ground. Aquifers are replenished by rainwater that infiltrates down from the land surface..

HETCH HETCHY SYSTEM

The City purchases water from the Hetch Hetchy System. The San Francisco Regional Water System (SFRWS) conducts watershed sanitary surveys for the Hetch Hetchy source annually and for non-Hetch Hetchy surface water sources (UNIHHS) every five years. The latest sanitary surveys for the non-Hetch Hetchy watersheds were completed in 2021 for the period of 2016-2020. All these surveys together with our stringent watershed protection management activities were completed with support from partner agencies including National Park Service and US Forest Service. The purposes of the surveys are to evaluate the sanitary conditions and water quality of the watersheds and to review results of watershed management activities conducted in the preceding years. Wildlife, stock, and human activities continue to be the potential contamination sources. You may contact the San Francisco District office of the State Water Resources Control Board's Division of Drinking Water (SWRCB-DDW) at 510-620-3474 for the review of these reports.

SANTA CLARA VALLEY WATER DISTRICT

The Santa Clara Valley Water District, now Valley Water, provides treated surface water to local municipalities and private water retailers who deliver the water directly to homes and businesses in Santa Clara County. Valley Water's surface water is mainly imported from the South Bay Aqueduct, Dyer Reservoir, Lake Del Valle, and San Luis Reservoir, which all draw water from the Sacramento - San Joaquin Delta watershed. Valley Water's local water sources include Anderson and Calero Reservoirs. Water from imported and local sources is pumped to and treated at three water treatment plants located in Santa Clara County.

Valley Water's source waters are vulnerable to potential contamination from a variety of land use practices, such as agricultural and urban runoff, recreational activities, livestock grazing, and residential and industrial development. The imported sources are also vulnerable to wastewater treatment plant discharges, seawater intrusion, and wildfires in open space areas. In addition, local sources are also vulnerable to potential contamination from commercial stables and historic mining practices. No contaminant associated with any of these activities has been detected in Valley Water's treated water. The water treatment plants provide multiple barriers for physical removal of contaminants and disinfection of pathogens. For more information, visit Valley Water's website at www.valleywater.org

	UNIT	MCL	State PHG/ Fed (MCLG)	analysis for City SC Well Water range	average	analysis for SCVWater District range	average	analysis for HETCH HETCHY range	average or [max]	Common Sources of:
Primary Standards For Source Water Sampling										
MICROBIOLOGICAL										
Giardia lamblia	cyst/L	TT	0	NA	NA	ND - 0.1	ND	0 - 0.25	0.01	naturally present in environment
RADIOACTIVITY										
Gross Alpha	pCi/L	15	(0)	ND	ND	ND	ND	ND	ND	erosion of natural deposits
INORGANIC CHEMICAL										
Arsenic	PPB	10	0.04	1.6 - 1.7	0.4	ND	ND	ND	ND	erosion of natl deposits/runoff
Barium	PPM	1	2	0.09 - 0.8	0.1	ND	ND	ND	ND	erosion of natl deposits/drilling
Chromium	PPB	50	[100]	ND - 3.6	1.9	ND	ND	ND	ND	erosion of natl deposits/steel
Fluoride	PPM	2	1	0.6 - 0.7	0.1	0.1 - 1.1	ND	0.1 - 0.7	0.1	water additive/erosion of nat'l deposits
Nitrate (as Nitrogen)	PPM	10	1	0.5 - 8.1	4.0	1.6 - 6.8	ND	ND	ND	erosion of nat'l deposits/runoff/leaching
Secondary Standards - "Consumer Acceptance Contaminant Levels"										
Chloride	PPM	500	NA	35 - 52	43.3	56 - 66	61	< 3 - 5	8.7	runoff/leaching/ nat'l deposits/seawater
Color	UNITS	15	NA	ND	ND	ND	ND	ND	ND	naturally occuring organic material
Manganese	PPB	50	NA	ND - 14	3.5	ND	ND	ND	ND	leaching from natural deposits
Odor	UNITS	3	NA	ND	ND	1		ND	ND	naturally occuring organic material
Sp. Conductance	uS/cm	1600	NA	560 - 690	620.5	470 - 534	504	30 - 260	160	subst forming ions/seawater intrusion
Sulfate	PPM	500	NA	41 - 97	65.5	60 - 73	66	1 - 34	17	runoff/leaching/ nat'l deposits/ind. waste
Tot.Dissolved Solids	PPM	1000	NA	350 - 390	367.5	280 - 296	287	< 10 - 17	22	runoff/leaching/ from natural deposits
Turbidity	NTU	5	NA	ND - 0.89	0.2	0.1 - 12	0.64	0.2 - 0.5 (1)	1.3 (2)	soil runoff
Consumer Information										
pH	UNITS	NS	NS	7.8 - 7.8	7.85	7.6 - 7.9	7.8	8.6 - 9.8	9.3	
Alkalinity (as CaCO3)	PPM	NS	NS	180 - 220	197.5	56 - 74	64	6.9 - 58	55	
Ammonia (total)	PPM	NS	NS	NA	NA	0.40 - 0.56	0.51	NA	NA	
Bicarbonate Alkalinity (as =CO3)	PPM	NS	NS	220 - 270	240	8 - 104	93	NA	NA	
Boron	PPB	NS	NS	NA	NA	100 - 110	110	NA	NA	
Bromide	PPB	NS	NS	NA	NA	ND - 110	ND	NA	NA	
Calcium (as Ca)	PPM	NS	NS	66 - 74	68.8	23 - 28	25	2.4 - 20	16	
Chlorate	PPB	NS	NS	NA	NA	140 - 190	173	8.6 - 110	29	
Hardness	PPM	NS	NS	220 - 300	265	85 - 111	99	9.8 - 74	62	
Hexavalent Chromium	PPB	NS	NS	0.09 - 1.1	0.7	ND	ND	ND	NA	
Magnesium	PPM	NS	NS	16 - 21	2.8	11 - 12	12	0.2 - 5.8	4	
Molybdenum	PPB	NS	NS	NA	NA	1.8	1.9	NA	NA	
Phosphate	PPM	NS	NS	NA	NA	1.06 - 1.2	1.14	NA	NA	
Potassium	PPM	NS	NS	ND - 1	0.3	2.1 - 2.4	2.2	0.5 - 1.3	0.8	
Silica	PPM	NS	NS	NA	NA	9 - 13	10	2.6 - 7	4.8	
Sodium	PPM	NS	NS	29 - 41	33	52 - 63	58	5.4 - 26	10	
Strontium	PPM	NS	NS	NA	NA	1.1	NA	0.14 - 0.2	0.17	
Temperature	Deg. C	NS	NS	10.2 - 25	NA	NA	NA	NA	NA	
Total Organic Carbon	PPM	NS	NS	NA	NA	1.4 - 2.4	1.9	1.7 - 3.4	2.9	

Primary Standards As Measured In City Of Santa Clara Distribution System	Units	MCL	State MCL (Fed PHG)	Range	Average		Common Sources of:
MICROBIOLOGICAL							
Total Coliform	% positive	5.0%	(0)	0 - 1.1%	< 5%		naturally present in environment
DISINFECTION BYPRODUCTS, RESIDUALS, PRECURSORS							
Trihalomethanes	PPB	80	NA	0 - 45	[28]		byproduct of drinking water disinfection
Haloacetic Acids	PPB	60	NA	0 - 29	[14.6]		byproduct of drinking water disinfection
Chlorine residual	PPM	4	4	2.0 - 3.2	1.07		drinking water disinfectant
INORGANIC CHEMICAL as measured at 77 Residential Taps in 2019:							
Copper	PPM	AL = 1.3	0.3	90th percentile = 0.28		Number Exceeded = 2	corrosion of plumbing systems
Lead	PPB	AL = 15	0.2	90th percentile = ND		Number Exceeded = 1 (6)	corrosion of plumbing systems
SCHOOLS REQUESTING LEAD TESTING IN 2018; 33 Schools (172 samples taken)							
Lead	PPB	AL = 15	0.2	90th percentile = ND		Number Exceeded = 7 (6)	corrosion of plumbing systems

Unregulated Contaminants As Measured In City Of Santa Clara Distribution System:	Units	Notification Level	Range	Average
Chlorodibromomethane	PPB	NA	ND - 0.68	0.1
Chlorate	PPB	800	110 - 180	131
Chromium	PPB	NA	ND - 4.2	0.8
Hexavalent Chromium	PPB	NA	ND - 4.7	1.5
Molybdenum	PPB	NA	NA - 0.7	1.1
Strontium	PPB	NA	ND - 830	157.5
Vanadium	PPB	50	ND - 9.3	2.1
Manganese	PPB	50	11 - 20	16
Total Haloacetic Acids (9)	PPB	NA	ND - 58	23.6

City of Santa Clara

WATER QUALITY TABLE

(1) Turbidity is measured every four hours. These are monthly average turbidity values. (2) The highest turbidity of the unfiltered Hetch Hetchy water = 2,220 was 1.3 NTU. (3) John Sutter Elementary - 26ppb. Repeat sampling following plumbing repairs was non-detect for lead.

Definitions and Notes

Primary Drinking Water Standard (PDWS) – MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

MAXIMUM CONTAMINANT LEVEL (MCL) – The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

MAXIMUM CONTAMINANT LEVEL GOAL (MCLG) – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

PUBLIC HEALTH GOAL (PHG) – The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

REGULATORY ACTION LEVEL (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

TREATMENT TECHNIQUE (TT) – A required process intended to reduce the level of a contaminant in drinking water.

UNREGULATED CONTAMINANTS – Unregulated contaminant monitoring helps EPA and State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

pCi/L – picocuries per Liter (a measure of radioactivity)

PPM – Parts Per Million

PPB – Parts Per Billion

P – Present

A – Absent

<DLR – less than Detection Limit for Reporting

DISTRIBUTION SYSTEM – drinking water delivery system

RESIDENTIAL TAPS – household faucets used for lead and copper sampling

DISINFECTION BYPRODUCTS – chemical by products of disinfection

SECONDARY STANDARDS – secondary MCLs are set to protect the aesthetics of drinking water

NTU – Nephelometric Turbidity Unit. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality.

uS/cm – microSiemens per centimeter

NA – not applicable or unavailable

ND – not detected

NS – no standard

Copper and Lead Tap Monitoring was performed at 77 residential taps in September-October 2019.

HARDNESS – the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.

SODIUM – refers to the salt present in the water and is generally naturally occurring.

Attention

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

हिंदी मुहावरा महत्वपूर्ण है।
हिंदुत्व बच्चे जिसी है हिंदी का भाईचारा बचाएँ।

Chi tiết này thật quan trọng.
Xin nhờ người dịch cho quý vị.

यह हिन्दी महत्वपूर्ण है ।
कृपया करके किसी से हिंदी अनुवाद कराएँ ।

이 안내는 매우 중요합니다.
본인을 위해 번역인을 사용하십시요.

この報告書には上水道に関する重要な情報が記されております。翻訳を御依頼なされるか、内容をご理解なさっておられる方にお尋ねなさい。

此份有關你的食水報告,內有重要資料和訊息,請找他人為你翻譯及解釋清楚。

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Atencion: Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien quelo entienda bien.

Water Quality Consumer Confidence Report

2021

Report Contains Water Quality Monitoring Results

The City of Santa Clara is committed to providing our customers with a safe and reliable supply of high-quality drinking water.

Each year we publish our annual water quality report known as the Consumer Confidence Report (report). It contains the latest water quality monitoring results obtained through the end of calendar year 2020. It answers some of the most common water quality questions asked by our customers. We hope it will provide the facts and perspectives you need to make an informed evaluation of your tap water.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

This report has been prepared in accordance with the requirements of the Safe Drinking Water Act and State regulations. Although the water you receive is tested for over 100 potential contaminants and 48 other parameters, the majority of the potential contaminants are never detected. To simplify the report, only the constituents that were detected in at least one water source appear in the water quality table. We are also required by the State to provide additional information about certain constituents that appear on the water quality table even though the water meets all applicable drinking water standards. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

INFORMATION AND GUIDANCE FOR PEOPLE WITH COMPROMISED IMMUNE SYSTEMS: Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centre for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

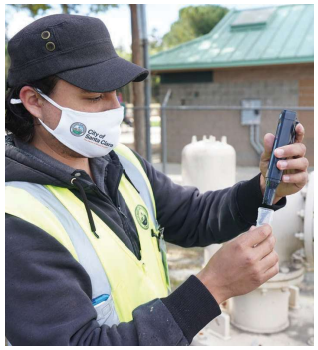
City of Santa Clara, California

THE CITY OF SANTA CLARA OWNS AND OPERATES 21 ACTIVE GROUNDWATER WELLS.

a SFPUC Hetch Hetchy System

b City of Santa Clara Groundwater

c Valley Water Treated Surface Water



Some Santa Clara Water is Flouridated

Q: Is fluoride added to our water?
A: Fluoride is nature's cavity fighter. Fluoridation adjusts the naturally occurring fluoride in drinking water to the ideal level for protecting your teeth. Fluoridated drinking water benefits people of all ages by preventing tooth decay.

In November of 2005, the SFPUC Hetch Hetchy system completed construction of a fluoridation facility in the east bay. The water purchased by the City from the SFPUC is fluoridated, while water from Valley Water is not fluoridated. If your zip code is 95054, you are in the area receiving fluoridated water. However, this area is also served by well water that has not been fluoridated. Refer to the map that shows the area supplied with water from both the Hetch-Hetchy system and the City's wells. The majority of the City will continue to receive water without added fluoride.

State law requires the addition of fluoride to all water systems in California serving 10,000 customers or more. In 2025, Valley Water plans to add fluoridation to the Rinconada Water Treatment Plant, which services the southern portion of Santa Clara. Fluoridation of the remaining water sources in the City would require installation of fluoride injecting equipment at each of the City's 21 active wells. The law includes a provision for state funds to finance this fluoridation equipment; however, it may be some time before the state can provide funding to move forward with a fluoridation program for the remainder of the City.

Contact your health provider if you have concerns about dental fluorosis. For additional information about fluoridation or oral health, visit the CDC website www.cdc.gov/fluoridation or the State Water Board website **www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml**.

Water Quality Monitoring

INFORMATION ABOUT THE DRINKING WATER SOURCE ASSESSMENT AND PROTECTION PROGRAM:

The City completed a Drinking Water Source Assessment and Protection (DWSAP) Program for the groundwater sources. The DWSAP was completed in August 2002 and submitted to the State Water Board in December 2002. A copy of the DWSAP is available at the City's Water Utility offices at 1500 Warburton Avenue, Santa Clara. You may request a summary of the individual assessments by contacting the Water Utility at (408) 615-2000 or by email at **watercompliance@santaclaraca.gov**.

The City's groundwater sources are considered most vulnerable to contamination by leaking underground tanks containing fuel or dry-cleaning chemicals; old, unrecorded septic systems; storm drain dry wells located at various places around the City; many old, shallow, private wells, abandoned and not properly destroyed; and possibly some contaminants from a small landfill dump left over from the early years of the 20th century.

LEAD

There have been no exceedances of the ACTION LEVEL for lead in the City of Santa Clara groundwater sources or supplies purchased from other agencies. It is possible for lead levels in your home to be higher than other homes in the community because of plumbing materials used in the original construction of your home. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Santa Clara is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at **http://www.epa.gov/lead**.

SCHOOL LEAD TESTING

As of January 2018 State law requires water suppliers to sample all schools on public land by mid-2019. As of April 2019, City staff has completed all required sampling and provided results to the school districts following the testing. All samples with the exception of one sample taken at John Sutter Elementary School were well below the EPA action level for lead of 15 parts per billion (ppb). The fixture was immediately taken out of service and replaced by SCUSD staff, resampling at the site resulted in a ND (non-detect) for lead. Please contact your school administrator for information about lead testing and results for your local school. For additional information visit: **https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.html**

"NITRATES" - INFORMATION ABOUT NITRATES IN GROUNDWATER RESOURCES

Nitrate in drinking water at levels above 10 mg/l is a health risk for infants less than six months old. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask for advice from your health care provider.

PFAS

Perfluoroalkyl and Polyfluoroalkyl substances, collectively known as "PFAS" are a group of chemicals that have been widely used in industrial applications and consumer products such as carpets, clothing, furniture fabrics, paper packaging for food, firefighting foams, and other materials including waterproof/stain resistant/ nonstick cookware. Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are two common types of PFAS. The City has completed monitoring for PFAS compounds at select well sites based on proximity to a potential source of contamination (airports which are known to have used aqueous film forming agents for fire suppression and training). No PFAS compounds have been detected.

CRYPTOSPORIDIUM AND GIARDIA IN WATER RESOURCES:

Cryptosporidiosis is a disease of the intestinal tract brought on by a parasitic microbe (a protozoan) called Cryptosporidium. The disease is transmitted through contaminated water, food or direct contact with human or animal waste. If you are healthy with a normal immune system, the flu-like symptoms usually last about two weeks. Symptoms include diarrhea, stomach cramps, upset stomach and slight fever. However, immune-compromised people, infants, small children, and the elderly are at greater risk of developing life-threatening illness.

The water purchased by the City from the San Francisco Public Utilities Commission (SFPUC) Hetch Hetchy system has been tested for Cryptosporidium and Giardia. The source waters and treated waters are tested at least monthly and occasionally show very low levels of Cryptosporidium in the waters serving the East Bay, South Bay and San Francisco Peninsula. Giardia, another parasitic organism causing similar symptoms, is monitored with the same frequency and very low levels are occasionally detected in the same source waters.

The general public is at very low risk and there have been no reported cases of Cryptosporidiosis and Giardiasis attributed to the City's public water supply. This advisory applies to water received from the Hetch Hetchy system in the area of the City north of Highway 101. The CDPH issues guidance for people with serious immune system problems. Currently, available guidance from the state and county health agencies recommends that people with such conditions consult with their doctor or primary health care provider about preventing Cryptosporidium and Giardia infection from all potential sources. Water consumers may choose to boil their drinking water at a rolling boil for at least one minute as an extra precaution.

For information about Cryptosporidiosis and Giardiasis, or copies of available guidance, contact the Santa Clara County Department of Environmental Health at 408 918-3400. You may also contact the USEPA Drinking Water Hotline at 1-800-426-4791.

CONTAMINANTS THAT OCCUR IN DRINKING WATER OBTAINED FROM SURFACE SOURCES AND UNDERGROUND SOURCES:

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- Inorganic contaminants such as salts and metals, that can be naturally-occurring or resulting from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses;
- Organic chemical contaminants including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems;
- Radioactive contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the US Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The US. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPAs Safe Drinking Water Hotline at 1-800-426-4791.

For Additional Information On Water Quality

City of Santa Clara
1500 Warburton Ave.
Santa Clara, CA 95050
408-615-2200
SantaClaraCA.gov

Water Utility
1500 Warburton Ave.
Santa Clara, CA 95050
Office hours: 8 a.m.–5 p.m., Monday-Friday
408-615-2000

Water Billing Questions
408-615-2300

Water Quality Report Questions
Diane Asuncion
408-615-2200
watercompliance@santaclaraca.gov

Water Emergencies
408-615-2200 Monday-Friday, 8 a.m.–5 p.m.
408-615-5640 other days and times

Valley Water Water Conservation
Save20gallons.org
408-630-2554 – Water Conservation Hotline and Rebate Information

Sign up for a free Water-Wise House Call from Valley Water by calling 1-800-548-1882

City of Santa Clara

Resources
If you would like to learn more about drinking water quality, treatment and regulation, contact these organizations:

American Water Works Association:
awwa.org

State Water Resources Control Board, Division of Drinking Water:
waterboards.ca.gov/drinking_water/programs/index.shtml

United States Environmental Protection Agency:
water.epa.gov/drink

San Francisco Public Utilities Commission, Water Quality Bureau:
sfwater.org

Valley Water:
valleywater.org

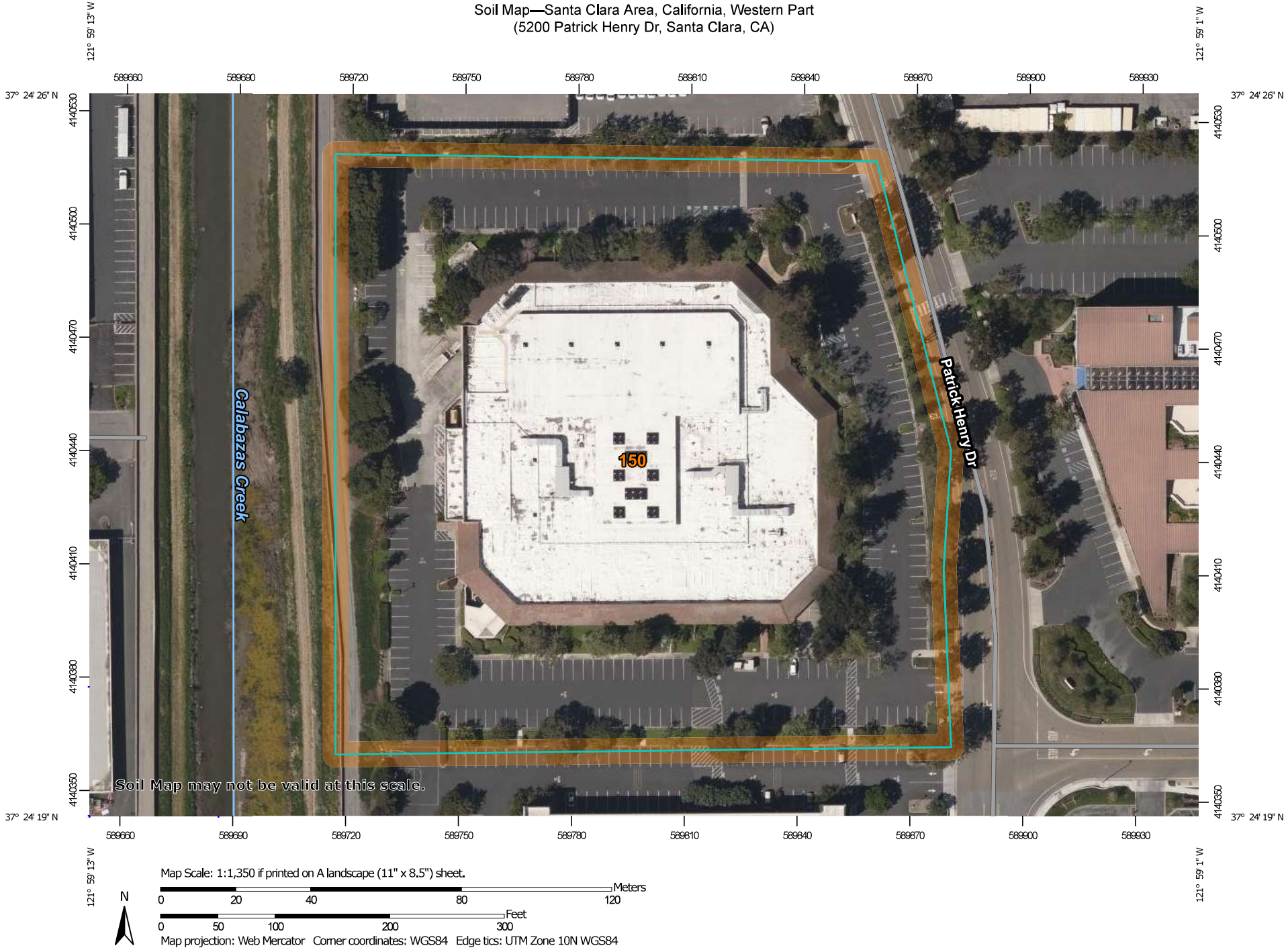
Water Education Foundation:
watereducation.org

Water Quality Information Center:
http://wqic.nal.usda.gov/

Public Input
To provide input on decisions that affect drinking water quality, provide input to the Santa Clara City Council at a Council meeting or in advance to **mayorandcouncil@santaclaraca.gov** or call 408-615-2250. A list of all City Council meetings, agenda items and study sessions can be viewed on the City website **SantaClaraCA.gov**

eNotify
Visit **SantaClaraCA.gov/eNews** to sign up to receive news from Water Utility.

Soil Map—Santa Clara Area, California, Western Part
(5200 Patrick Henry Dr, Santa Clara, CA)



Map Scale: 1:1,350 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Santa Clara Area, California, Western Part
Survey Area Data: Version 9, May 29, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 13, 2019—Apr 23, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

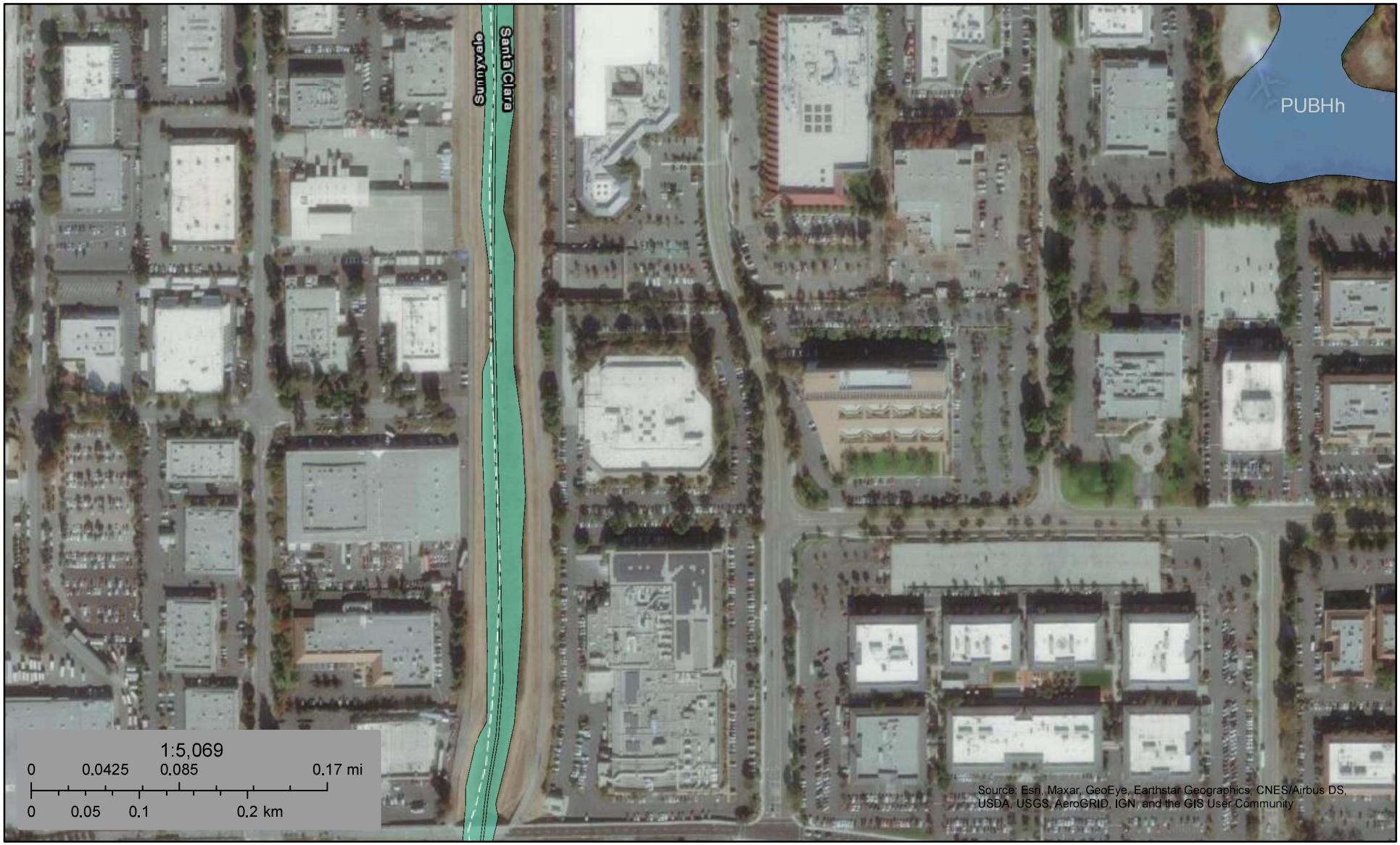
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
150	Urbanland-Embarcadero complex, 0 to 2 percent slopes, drained	6.2	100.0%
Totals for Area of Interest		**6.2**	**100.0%**

U.S. Fish and Wildlife Service

National Wetlands Inventory

5200 Patrick Henry Dr, Santa Clara, CA



July 20, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Noli Valera

From: Public Records <PublicRecords@baaqmd.gov>
Sent: Thursday, June 24, 2021 5:11 PM
To: Noli Valera
Subject: [EXTERNAL] Public Records Request No. 2021-06-0338

[External Email] This email originated from outside of the Atlas mail system. Please use caution when opening attachments.

Dear Noli Valera,

Thank you for your request. We have searched our records and have no records that respond to your below request for:

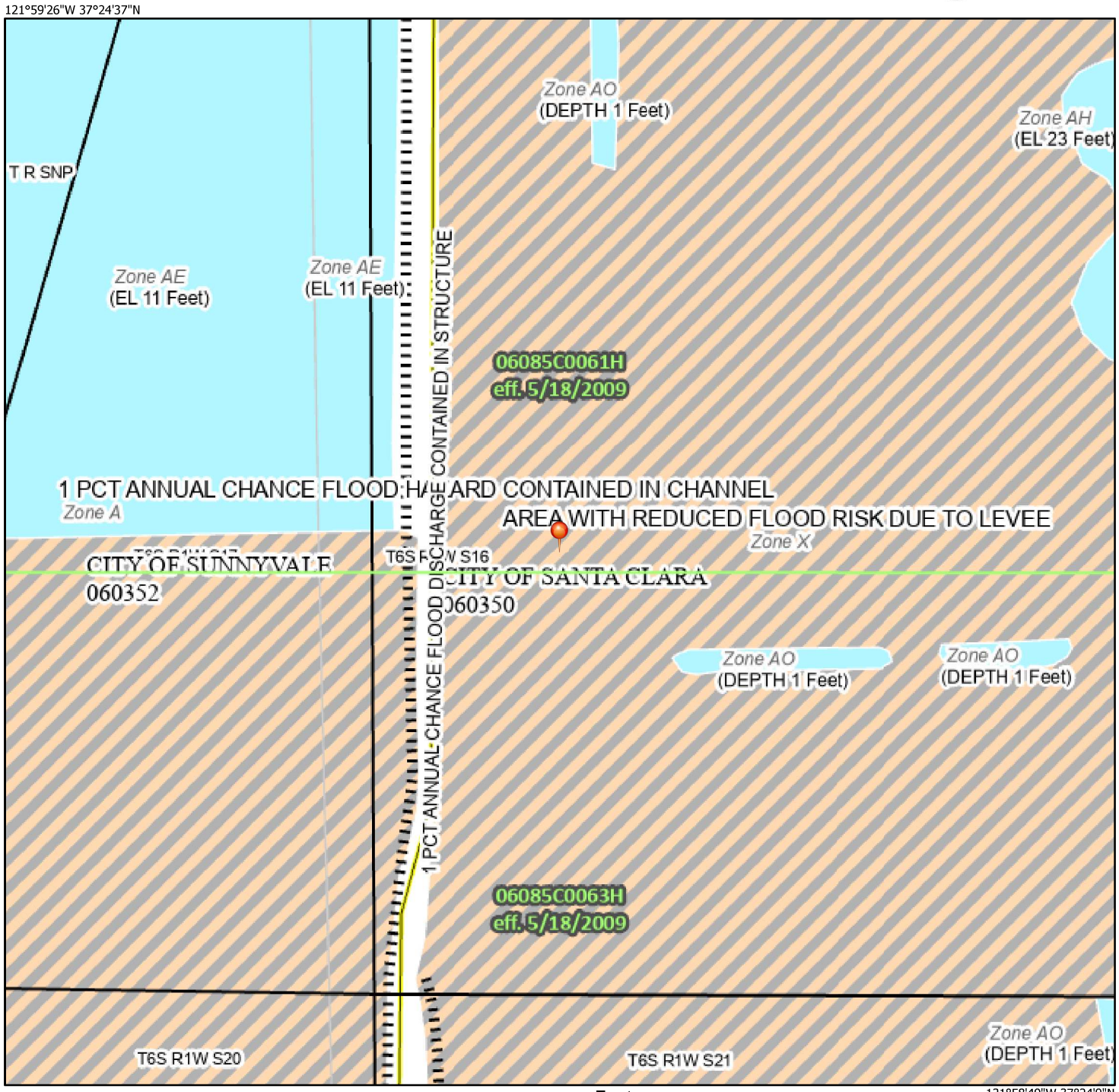
5200 Patrick Henry Drive
Santa Clara

If you have any questions or concerns, please call or e-mail me.

Sincerely,

Rochele Henderson
Public Records Section
BAAQMD
415-516-1916

National Flood Hazard Layer FIRMette



Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/19/2021 at 11:29 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.