
APPENDIX G

PHASE I

ENVIRONMENTAL SITE ASSESSMENT



Environment

Prepared for:
City of San Diego
San Diego, California

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Phase I Environmental Site Assessment Qualcomm Stadium 9449 Friars Road San Diego, California



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List of Abbreviations and Acronyms

Apex	Apex Tank Lines, Inc.
Arcadis	Arcadis US Inc.
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
AUL	activity use limitation
BCG	Barrett Consulting Group
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, xylenes
CAO	Cleanup and Abatement Order
CAP	Corrective Action Plan
CDPH	California Department of Public Health
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CHHSL	California Human Health Screening Level
CHMIRS	California Hazardous Material Incident Report System
COC	contaminant of concern
Converse	Converse Consultants
CREC	controlled REC
DEH	Department of Environmental Health
DMC	de minimis condition
DTSC	California Department of Toxic Substance Control
ECHO	Enforcement & Compliance History Online
EDR	Environmental Data Resources
EIS	Emission Inventory System
ENF	RCRA Enforcement
Envirofacts	Envirofacts Data Warehouse
EP	Environmental Professional
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
FINDS	Facility Index System
FOIA	Freedom of Information Act
FRS	Facility Information System
FTTS	Federal Toxics Tracking System
GC	gas chromatograph
GWE	groundwater extraction
HAZNET	California Hazardous Waste Information System
HIST FTTS	historical FTTS
HMMD	Hazardous Materials Management Division
HREC	historical REC
HVAC	heating, ventilation, and air conditioning
I-15	Interstate 15
I-8	Interstate 8
ICIS	Integrated Compliance Information System
KMEP	Kinder Morgan Energy Partners
LDS	Land Disposal Facilities

LNAPL	light non-aqueous phase liquid
LQG	Large Quantity Generator
LUFT	leaking underground fuel tank
LUST	leaking UST
MCL	maximum contaminant level
mg/kg	milligrams per kilogram
msl	mean sea level
MTBE	methyl tertiary butyl ether
MTDB	Metropolitan Transit Development Board
MTS	Metropolitan Transit System
MVT	Mission Valley Terminal
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
OCP	organo-chlorine pesticide
OEHHA	Office of Environmental Health Hazard Assessment
PCB	polychlorinated biphenyl
ppb	parts per billion
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RGA LUST	Recovered Government Agency Leaking UST
RWQCB	Regional Water Quality Control Board
SAM	Site Assessment and Mitigation
SCM	Site Conceptual Model
SDG&E	San Diego Gas & Electric
SFPP	Santa Fe Pacific Pipeline Partners, LP
SLIC	Spills, Leaks, Investigations, and Cleanups
SQG	Small Quantity Generator
subject property	9449 Friars Road, San Diego, San Diego County, California
SVE	soil vapor extraction
SVOC	semi-volatile organic compound
SWEEPS	Statewide Environmental Evaluation and Planning System
SWRCB	State Water Resources Control Board
SWRCY	Recycling Facilities in California
TBA	tert-butyl alcohol
TEEM	Tank Engineering and Environmental Management
TPH	total petroleum hydrocarbons
TPHd	total petroleum hydrocarbons as diesel
TPHg	total petroleum hydrocarbons as gasoline
TRIS	Toxic Release Inventory System
TSCA	Toxic Substance Control Act
U.S. EPA	United States Environmental Protection Agency
UST	underground storage tank
VAP	Voluntary Assistance Program
VEC	vapor encroachment condition
VES	vapor encroachment screen
VOC	volatile organic compound
WMUDS/SWAT	Waste Management Unit Database System

Executive Summary

The City of San Diego contracted with AECOM to perform a Phase I Environmental Site Assessment (ESA) of Qualcomm Stadium located at 9449 Friars Road, San Diego, San Diego County, California (subject property). This Phase I ESA was performed in general conformance with the scope and limitations of the American Society for Testing and Materials Standard Practice Designation E 1527-13 for ESAs. Exceptions to, or deletions from, this practice are described in this report.

Representatives from AECOM conducted a site visit on July 7, 2015. The subject property consists of two parcels of land totaling approximately 166 acres occupied by an approximate 1,351,200-square-foot, seven-level stadium structure (Qualcomm Stadium), which includes two basement levels. The stadium structure occupies approximately 15 acres in the central portion of the subject property. Associated asphalt-paved parking areas surround the entire stadium structure. An elevated Metropolitan Transit System (MTS) Trolley station and overhead MTS Trolley line are located in the southern portion of the property and two MTS-owned and operated transformer buildings are located in the far southeastern and southwestern corners of the subject property. The MTS Trolley station, overhead line, and associated transformer buildings are owned and operated by MTS and were not included as part of this assessment.

Several additional features are present in the southwestern corner of the subject property, to the north and south of the MTS Trolley line in this area. On the south side of the MTS Trolley line, these features include a practice field, a concrete block restroom facility and storage room, concrete-paved and unpaved storage areas, a three-sided concrete block storage structure, a sod farm, and temporary structures associated with San Diego Fire Department Station 45. Features present to the north of the MTS Trolley line in this area include paved and unpaved exterior storage areas, a maintenance shop building, and a maintenance yard. No visual evidence of underground storage tanks (USTs) (e.g., vent pipes, fill ports), potable water wells, clarifiers, dry wells, septic tanks, or leach fields was observed during the site visit.

The subject property is located in a mixed-use commercial and residential area of Mission Valley in San Diego. The subject property is bordered to the north by Friars Road and San Diego Mission Road followed by residential properties, vacant land, a San Diego Fire Station (currently under construction), Mission Village Drive, and the Kinder Morgan Energy Partners (KMEP) Mission Valley Terminal (MVT) bulk petroleum terminal (to the northeast). The subject property is bordered to the east by Qualcomm Way/Rancho Mission Road and Interstate 15, beyond which are residential and commercial properties. The subject property is bordered to the south by the San Diego River followed by several multi-tenant commercial office buildings along Camino Del Rio North, beyond which is Interstate 8. The subject property is bordered to the west by multi-tenant commercial office buildings, and a multi-tenant retail shopping center that includes a Lowes Home Improvement Center, Costco Wholesale and Tire Center, Ikea, and restaurants and retail stores. Gasoline service stations and dry cleaners were not observed in the immediate vicinity (approximately 500 feet) of the subject property.

Between approximately 1987 and 1991, a release of approximately 200,000 gallons of gasoline leaked from a corroded subsurface pipeline near the KMEP manifold that carries gasoline to the various aboveground storage tanks (ASTs) on the northeast adjacent KMEP property. This release resulted in migration of light nonaqueous phase liquid onto the northeastern area of the subject property, as well as a dissolved-phase petroleum contaminant plume that extends beneath the central area of the subject property and off-site toward the San Diego River. Various phases of remedial

activities have been conducted at the KMEP facility since the early 1990s, and include both on-terminal (off-site) and off-terminal (on-site) impact areas. Numerous groundwater monitoring wells, groundwater extraction (GWE) wells, and soil vapor extraction (SVE) system wells associated with the KMEP MVT off-terminal impact plume are located on the subject property. Most of these wells are part of a current quarterly groundwater monitoring program conducted by KMEP. The KMEP facility is discussed further below. Other off-site sources of concern were not identified in the immediate vicinity of the subject property.

Historical research indicates that from the early 1900s through the early 1960s, the subject property was largely agricultural, and was occupied by a dairy farm until the mid-1940s. The San Diego River bisected the subject property along the eastern and southeastern area until construction of the existing stadium began in the mid-1960s. Construction of the stadium structure at the subject property commenced in 1966 and continued through 1967, at which time the San Diego River was relocated to the south of the subject property. In approximately 1968, a maintenance building was constructed in the southwestern corner of the subject property. By the 1970s, the area to the south and southwest of the maintenance building was also used as a practice field and sod farm. A water reuse pilot plant also occupied the maintenance building for a brief period during the early 1980s. In 1991, a 550-gallon leaded gasoline UST was removed from the vicinity of the maintenance building, and three new USTs (two 1,000-gallon diesel and one 1,000-gallon unleaded gasoline) were installed and remained in operation until they were removed in 2004. At that time a 1,500-gallon, divided compartment (AST containing 1,000 gallons of diesel and 500 gallons of gasoline) was installed in the maintenance area.

The subject property was identified in several compliance and release-related environmental databases. Compliance-related listings are not indicative of a release at the subject property. Release-related listings indicating an actual or potential release at the subject property were reviewed for potential impact to the subject property. Incidents related to these database listings, which are considered recognized environmental conditions (RECs) or historical RECs (HRECs), are discussed further below.

Based on AECOM's review of the database listings, a number of surrounding sites were identified in the environmental database search report. With the exception of the listings relating to the northeast adjacent KMEP facility, the majority of these sites were listed on noncontamination-related databases and based on their distance (generally greater than 500 feet), regulatory status (i.e., regulatory closure, no violations found), media impacted (soil only), and/or topographical position relative to the subject property (i.e. downgradient or crossgradient), these listings do not present a REC to the subject property.

Based on the above, the following RECs were identified during this assessment:

- A documented fuel release occurred at the KMEP property located at 9966 and 9950 San Diego Mission Road, immediately upgradient of the subject property. Fuel migrated from the KMEP property and impacted soil and groundwater beneath the subject property. Several phases of investigation and remediation have been completed as part of the release, and remediation and monitoring of the on-site contaminant plume is ongoing. Cleanup goals associated with the contaminant plume have not yet been achieved. As such, the KMEP facility represents a REC with respect to the subject property.
- A vapor encroachment screen (VES) of the KMEP facility and the area of the 2005 gasoline tanker spill that occurred near the northeastern stadium parking area indicate that there is a vapor encroachment condition (VEC) on the subject property. The VEC is associated with the groundwater plume originating from the KMEP property and benzene and toluene

concentrations in soil gas reported above Industrial/Commercial California Human Health Screening Levels in samples collected from the vicinity of the 2005 gasoline tanker spill. The presence of a VEC presents a REC with respect to the subject property.

- A 550-gallon leaded gasoline UST was present on the subject property between approximately 1968 and 1991. Photographs from UST removal activities indicate this UST was located near the pesticide storage building, in the southwestern corner of the subject property. Although this UST was removed and the case was closed, it does not appear that soil samples were collected below any associated fuel dispensers or underground piping, or if underground piping associated with the UST was removed and properly disposed. On this basis, this former UST presents a REC with respect to the subject property.
- Jet fuel-impacted soil and groundwater were reportedly encountered in the southeastern area of the subject property during the installation of the foundation for the MTS Trolley line transformer building in this area. In 1995, a spill report indicating approximately 1,000 gallons of dissolved jet fuel mixed with water was encountered during dewatering activities associated with construction activities. Impacted water and contaminated soil encountered during construction activities were reportedly containerized and shipped off-site, and no further remediation or investigation is known to have occurred in this area once construction was completed. The presence of jet fuel impacted soil and/or groundwater is not known to have been fully characterized in this area, and is likely associated with an off-site fuel line that parallels the eastern boundary of the subject property. A 10-inch fuel pipeline was identified adjacent to the eastern property boundary, in the vicinity of Mission Center Road. The extent of jet fuel impacts in this area is not fully known based on the available information. Therefore, this is considered a REC.
- The subject property is listed in the Registered Government Archives leaking UST (LUST) database for the years 2006 and 2007; however, no further information is provided. Based on the lack of information regarding this listing (i.e., location of the former LUST, confirmatory soil and/or groundwater sampling associated with this LUST listing), AECOM considers this LUST to be a REC.
- The subject property was identified in a Federal Toxics Tracking System (FTTS) database listing. According to the listing in 1988 a "Section 6 PCB Federal investigation" associated with Toxic Substances Control Act enforcement actions and compliance activities was conducted for the subject property. A violation was noted; however, no further information was provided by the database. According to facility personnel, and based on observations made during the facility inspection, there are oil-containing transformers in four exterior areas around the subject property parking area. Facility personnel were unaware if upgrades to the transformers had historically been conducted. Based on the age of the subject property, the potential for polychlorinated biphenyl (PCB)-containing dielectric fluids exists. On this basis, the potential for PCB-containing equipment to be present on-site is considered a REC.

The following controlled REC (CREC) was identified:

- On April 17, 2013, a tanker truck overturned at the intersection of Mission Village Drive and San Diego Mission Road, adjacent to the northeastern boundary of the subject property. The incident resulted in approximately 2,500 gallons of ethanol pooled into two areas in the subject property northeast parking area, and approximately 3,500 gallons of ethanol that was not recovered as a result of this spill. Following cleanup and sampling activities related to this spill, it was concluded that the sorbed-phase ethanol impacts in soil were limited and that the impacts had degraded rapidly. No further action for investigation or remediation was recommended at the conclusion of the subsurface assessment. A letter concurring with this

recommendation was issued by the San Diego County Department of Environmental Health (DEH) in February 2014; however, the DEH letter also stated that changes to land use on the subject property (currently commercial) may require reassessment of this incident. Based on this DEH determination, this closed spill incident is considered a CREC.

The following HRECs were identified:

- On December 7, 2005, a tanker truck containing gasoline overturned at the southeast corner of Mission Village Drive and San Diego Mission Road. The overturned tanker truck resulted in a gasoline spill and fire in the northeastern quadrant of the subject property. The spill incident was issued a closed status in March 2007. Based on soil and groundwater data provided in a previous report in conjunction with the closed status, this closed spill incident is considered an HREC.
- Numerous spill incidents (in addition to the 1995 release of dissolved jet fuel, discussed above) at the subject property were identified in the database report, which are described as follows. In 2003, a spill of approximately 9 ounces of ammonia occurred from a leak in the refrigeration unit of a motor home in the parking area surrounding the stadium; in 2007 soil contaminated with an unknown oil or chemical was found adjacent to the property. The soil was believed to have been dumped illegally. In 2008, approximately 50 gallons of a hydrocarbon material was released from a containment area when equipment failed during drilling activities and, in 2014, approximately 40 gallons of a "fluorescein dye" mixed with water was observed flowing out of a storm drain toward the San Diego River. The exact locations where these incidents occurred on the subject property are unknown. Regardless, these incidents have all received a closed status. Based on the closed status, these former on-site incidents are considered HRECs.

The following de minimis conditions (DMCs) were identified during this assessment:

- AECOM observed an approximate 4-square-foot area of oily staining on the concrete-paved and unpaved area adjacent to the hazardous waste storage area. Given the localized nature of the staining observed, AECOM considers this a DMC.
- Historical research indicates that the subject property was utilized as agricultural land and a dairy farm from approximately the early 1900s through the mid-1960s, and portions of the southwestern property area have been used as a sod farm from approximately the late 1970s to present day. It has been AECOM's experience that residual concentrations of organochlorine pesticides (OCPs) may be present in shallow soil of the subject property, as is common throughout many agricultural regions of the United States. Based on the current commercial use of the subject property, the potential presence of residual concentrations of OCPs in the shallow on-site soils is considered a DMC, since (in AECOM's opinion), the OCPs have a low potential to exceed regulatory action levels for commercial properties. Additionally, grading or earthmoving activities often accompany property redevelopment, which occurred when the dairy farm was converted to land uses now present in the southwest corner of the subject property. Since these activities mix and blend the soils, it is AECOM's opinion that concentrations of OCPs attributable to the dairy activities have been significantly reduced.

1.0 Introduction

1.1 Purpose

This Phase I Environmental Site Assessment (ESA) was performed pursuant to AECOM's June 2015 written proposal. This assessment was performed in advance of the City of San Diego's plan to evaluate reconstructing a stadium on the existing Qualcomm Stadium property, located at 9449 Friars Road, San Diego, San Diego County, California (subject property). The purpose of this Phase I ESA is to provide the client with information for use in evaluating recognized environmental conditions (RECs) associated with the subject property.

Per the American Society for Testing and Materials (ASTM) standard, potential findings can include RECs, including historical RECs (HRECs), controlled RECs (CRECs), and de minimis conditions (DMCs). A REC is defined by the ASTM standard as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." The term includes hazardous substances or petroleum products even under conditions in compliance with laws. HRECs are a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. CRECs are a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. DMCs are those situations that do not present a material risk of harm to public health or the environment and generally would not be subject to enforcement action if brought to the attention of the regulating authority.

This assessment is based on a review of existing conditions, reported preexisting conditions, and observed operations at the subject property and adjacent properties.

1.2 Scope of Work

The Phase I ESA included a site visit, regulatory research, historical review, and a review of an environmental database analysis of the subject property. In conducting the Phase I ESA, AECOM assessed the subject property for visible signs of possible contamination, researched public records for the subject property and adjacent properties (as applicable), and conducted interviews with persons knowledgeable about the subject property.

This project was performed in general accordance with ASTM Standard Practice Designation E 1527-13 and AECOM's June 2015 proposal. Conclusions reached in this report are based on the assessment performed and are subject to limitations set forth in Sections 1.3, 1.4, and 1.5 below.

1.3 Study Limitations

This report describes the results of AECOM's Phase I ESA to identify the presence of contamination-related liabilities materially affecting the subject facility and/or property. In the conduct of this assessment, AECOM assessed the presence of such problems within the limits of the established scope of work as described in our proposal.

As with any due diligence assessment, there is a certain degree of dependence upon oral information provided by facility or site representatives that is not readily verifiable through visual observations or supported by any available written documentation. AECOM shall not be held responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed by facility or site representatives at the time this assessment was performed. In addition, the findings in this report are subject to certain conditions and assumptions, which are noted in the report. Any party reviewing the findings of the report must carefully review and consider all such conditions and assumptions.

This report and all field data and notes were gathered and/or prepared by AECOM in accordance with the agreed upon scope of work and generally accepted engineering and scientific practice in effect at the time of AECOM's assessment of the subject property. The statements, conclusions, and opinions contained in this report are only intended to give approximations of the environmental conditions at the subject property.

As specified in the ASTM standard (referred to below as "this practice"), it is incumbent that the client and any other parties who review and rely upon this report understand the following inherent conditions surrounding any Phase I ESA:

- **Uncertainty Not Eliminated** – No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with a property, and this practice recognizes reasonable limits of time and costs. (Section 4.5.1 of the ASTM standard)
- **Not Exhaustive** – "All appropriate inquiry" does not mean an exhaustive assessment of a clean property. There is a point at which the cost of information obtained outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. One of the purposes of this practice is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing an ESA and the reduction of uncertainty about unknown conditions resulting from additional information. (Section 4.5.2 of the ASTM Standard)
- **Comparison with Subsequent Inquiry** – It should not be concluded or assumed that an inquiry was not an "all appropriate inquiry" merely because the inquiry did not identify RECs in connection with a property. ESAs must be evaluated based on the reasonableness of judgments made at the time and under the circumstances in which they were made. Subsequent ESAs should not be considered valid standards to judge the appropriateness of any prior assessment based on hindsight, new information, use of developing technology or analytical techniques, or other factors. (Section 4.5.4 of the ASTM Standard)

A similar set of inherent limitations exist in cases where the Phase I ESA included a screening-level assessment of vapor migration or vapor encroachment; such an assessment is a required part of a Phase I ESA when the ASTM E1527-13 standard is employed. According to the ASTM E2600-10 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, the following limitations apply:

- **Uncertainty Not Eliminated in Screening** – No vapor encroachment screen (VES) can wholly eliminate uncertainty regarding the identifications of vapor encroachment conditions (VECs) in connection with the target property. (Section 4.5.1 of the ASTM Standard)
- **Not Exhaustive** – The guide is not meant to be an exhaustive screening. There is a point at which the cost of information obtained outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of real estate transactions. One of the purposes of this guide is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing a VES and the reduction of uncertainty about unknown conditions resulting from additional information. (Section 4.5.2 of the ASTM Standard)
- **Comparison with Subsequent Investigations** – It should not be concluded or assumed that an investigation was not adequate because the investigation did not identify any VECs in connection with a property. The VES must be evaluated based on the reasonableness of judgments made at the time and under the circumstances in which they were made. Subsequent VESs should not be considered valid bases to judge the appropriateness of any prior screening if based on hindsight, new information, use of developing technology or analytical techniques, or similar factors. (Section 4.5.4 of the ASTM Standard)

This report was prepared pursuant to an agreement between the City of San Diego (Client) and AECOM and is for the exclusive use of the Client. No other party is entitled to rely on the conclusions, observations, specifications, or data contained herein without first obtaining AECOM's written consent and provided any such party signs an AECOM-generated Reliance Letter. A third party's signing of the AECOM Reliance Letter and AECOM's written consent are conditions precedent to any additional use or reliance on this report.

The passage of time may result in changes in technology, economic conditions, site variations, or regulatory provisions, which would render the report inaccurate. Reliance on this report after the date of issuance as an accurate representation of current site conditions shall be at the user's sole risk.

1.4 Site-Related Limiting Conditions

The following site-specific limitation was encountered during the course of this assessment:

- It was not feasible to evaluate every individual room or space within the stadium structure during the site visit. AECOM's evaluation of the stadium and ancillary structures focused on areas where hazardous substances are handled and/or stored. Based on the use of the subject property (stadium) and information provided by site contacts listed in Section 2.3, this particular site-related limiting condition is not expected to have a significant limitation to this assessment.
- AECOM was not provided with access to the interior of the San Diego Fire Department Station 45 facility buildings (a mobile trailer unit and a Quonset hut used for vehicle storage) in the southwestern portion of the subject property. According to the site contact, the

San Diego Fire Department Station 45 building is used by fire department personnel for sleeping, eating, and administrative operations, and no hazardous materials are stored within the fire department building. AECOM was able to view the backup generator and associated diesel fuel tank associated with the Fire Department facility. Based on the known use of the San Diego Fire Department Station 45 facility, this particular site-related limiting condition is not expected to have a significant limitation to this assessment.

- AECOM was not provided with access to the interior of any of the numerous conex storage units located in the storage area in the southwestern portion of the subject property. The site contact indicated that the conex storage units contain equipment and miscellaneous materials used by various tenants and vendors for the subject property, and that no hazardous materials are stored within the conex storage units. Based on the known use of these areas, this particular site-related limiting condition is not expected to have a significant limitation to this assessment.
- An elevated Metropolitan Transit System (MTS) Trolley station and overhead trolley line are located in the southern portion of the property, and two MTS-owned and operated transformer buildings are located in the far southeastern and southwestern corners of the subject property. The MTS Trolley station, overhead line, and associated transformer buildings owned and operated by MTS were not included as part of this assessment. Further, no evidence of a release to the environment (i.e., staining) was observed around the exterior areas surrounding these features during AECOM's site reconnaissance. Based on this and the known use of these areas, this particular site-related limiting condition is not expected to have a significant limitation to this assessment.

1.5 Data Gaps/Data Failure

The following data failure/data gaps were encountered during the course of this assessment:

- As specified in the agreed upon scope of work, a title search was not conducted as part of this ESA; however, based upon historical data collected from other sources, this data gap is not expected to impact the results of this assessment. In addition, the user was not aware of environmental liens or activity use limitations (AULs) that have been placed on the subject property, and no environmental liens or AULs were identified in the lien search during the conducted database search.
- It should be noted that not all standard historical sources, as defined per ASTM, were reviewed as part of this assessment. Of the prescribed standard historical sources, fire insurance maps were not reviewed during this assessment. Based on information provided from other sources, AECOM does not expect that review of this additional source would have assisted in meeting the historical use requirement.
- Per ASTM, interviews of past owners, operators, and occupants of the subject property, who are likely to have material information regarding the potential for contamination at the subject property, shall be conducted to the extent that they can be identified and that the information likely to be obtained is not information already obtained from other sources. AECOM obtained historical property information from several site representatives listed in Section 2.3, sources listed in Section 4.0, and from previous environmental reports and correspondence summarized in Sections 4.3 and Section 5.5, and incorporated as appropriate throughout the report. Based on the historical information obtained during this Phase I ESA, AECOM does not consider this data gap to be a significant limitation to this report.

- A limitation was encountered in determining the historical use of the subject property. The earliest source of historical information reasonably ascertainable within the timeframe of this report in which usage could be determined was an aerial photograph from 1949. At the time of the photograph, the subject property appeared to be developed as agricultural land and buildings associated with a dairy farm and associated access roads. Therefore, the ASTM E1527 requirement to determine all obvious uses of the property from the present back to the property's first obvious developed use, or back to 1940, whichever is earlier, could not be achieved; however, based upon the identified agricultural use, it is unlikely that there had been significant prior development; therefore, this data failure is not expected to impact the results of this assessment.

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2.0 Site Description

2.1 Site Location and Parcel Description

The subject property is located at 9449 Friars Road, San Diego, San Diego County, California, and is situated south of Friars Road, west of the Interstate 15 (I-15) freeway, north of the San Diego River, and approximately 1,200 feet northwest of the I-15 and Interstate 8 (I-8) interchange. Vehicle access to the subject property is via the main stadium entrance gate at Mission Village Drive to the north, off of Friars Road. East-west access is from Friars Road via Qualcomm Way, which provides two gated accesses. Gated access is also provided westbound from San Diego Mission Road, and there is a limited access gate at the southeast corner of the subject property via Rancho Mission Road. In addition, pedestrian access is available via the MTS Trolley – Green Line trolley station located in the southern portion of the subject property.

According to the San Diego Assessor/Recorder/County Clerk's office, the subject property consists of two parcels of land totaling 166 acres that are designated by the County as Parcel Numbers 433-250-13-00 and 433-250-16-00. The approximate location of the subject property is illustrated in Figure 1 Site Location Map.

2.2 Site Ownership

According to information provided by San Diego Assessor/Recorder/County Clerk's office and the Environmental Data Resources (EDR) database report, the subject property is owned by the City of San Diego.

2.3 Site Visit

Ms. Sarah Perhala with AECOM's San Diego, California office and Ms. Sarah Vogel with AECOM's Camarillo, California office, visited the subject property on July 7, 2015. During the site visit, Ms. Perhala and Ms. Vogel were accompanied through the subject property by the following subject property contacts:

- Mr. Thomas Ritz, Building Maintenance Supervisor, who has been associated with the subject property for approximately 18 years;
- Mr. Bill Gibbs, Stadium Turf Manager, who has been associated with the subject property for approximately 30 years;
- Mr. Leon Hawkins, Building Supervisor, who has been associated with the subject property for approximately 25 years;
- Ms. Joy Newman, Hazardous Materials Program Supervisor with the City of San Diego, who has been associated with the subject property for approximately 14 years;
- Mr. Craig Fergusson, the City of San Diego Tank Engineering and Environmental Management (TEEM) Program Manager, who has been associated with the subject property for approximately 15 years; and
- Mr. Andy Cerin, Hazardous Materials Inspector with the City of San Diego, who has been associated with the subject property for approximately 10 years.

The site visit methodology consisted of walking over accessible areas of the subject property, including interior and exterior portions of on-site structures, the perimeter, and portions of the surrounding area. The following sections summarize the results of the site visit.

2.3.1 Site and Facility Description

The subject property consists of two parcels of land totaling approximately 166 acres and is occupied by Qualcomm Stadium. The stadium is an approximate 1,351,200-square-foot, seven-level structure, which includes two basement levels. The stadium structure occupies approximately 15 acres in the central portion of the subject property. The stadium is of concrete with steel frame construction. Interior finishing of retail shops, food vendor facilities, locker room, and restroom facilities include tile, carpet, and linoleum flooring, with painted sheetrock and concrete walls. The basement levels of the stadium, including maintenance areas, are mainly unfinished.

The current seating capacity of the stadium is approximately 70,560, which was increased from the original 52,000 seating capacity. The stadium was constructed with (approximately) half of the lower level seating built of permanent concrete in the southern quadrant of the stadium, and the other (approximate) half of portable modular construction using aluminum or steel. Associated asphalt-paved parking areas surround the entire stadium structure. There are approximately 18,870 parking spaces on the subject property. Numerous pad-mounted transformers and dumpsters were observed throughout the parking areas during the site visit. On-site transformers are discussed further in Section 2.3.4 and on-site dumpsters are discussed further in Section 2.3.7.

An elevated MTS Trolley station and overhead trolley line are located in the southern portion of the property. In addition, two MTS-owned and operated transformer buildings are located in the far southeastern and southwestern corners of the subject property. The MTS Trolley station, line, and associated transformer buildings are owned and operated by MTS and were not included as part of this assessment.

Several additional features are present in the southwestern corner of the subject property, to the north and south of the MTS Trolley line in this area. On the south side of the MTS Trolley line, these features include a practice field, a concrete block restroom facility and storage room, concrete-paved and unpaved storage areas, a three-sided concrete block storage structure, a sod farm, and temporary structures associated with San Diego Fire Department Station 45. Features present to the north of the MTS Trolley line in this area include paved and unpaved exterior storage areas, a maintenance shop building, and a maintenance yard. The San Diego Fire Department Station 45 area consists of a raised, double-wide mobile trailer unit and Quonset hut, all of which is surrounded by a chain-link fence. During the site visit, AECOM was not provided with access to the interior of the San Diego Fire Department Station 45 buildings. According to Mr. Ritz, the San Diego Fire Department Station 45 facility buildings are used by fire department personnel for sleeping, eating, training, and administrative operations, and no hazardous materials are stored within the fire department buildings.

The storage structure located in the storage area on the south side of the MTS trolley line is a three-sided concrete-block structure with a wood roof constructed on a concrete slab. Materials stored within this structure include excess seating, miscellaneous promotional items, electronic equipment, universal waste (spent fluorescent light bulbs), and miscellaneous building maintenance materials. Additional exterior storage is present to the west of this structure. These exterior storage areas contain numerous trailer (conex) storage units, as well as the exterior sod farm. According to Mr. Ritz, the storage units in this area contain equipment and miscellaneous materials used by a variety of tenants for the subject property. Hazardous materials are not stored within the storage units.

The maintenance shop and various exterior storage areas are present on the north side of the MTS Trolley line, in the southwestern corner of the property. The maintenance shop is a metal frame building with metal siding and metal roof on concrete slab foundation. The maintenance shop is used for general building maintenance and storage of miscellaneous building maintenance materials (tools, manual lathes, light welding equipment, etc.). General maintenance of gardening equipment, golf carts, fork lifts, etc. is conducted within the maintenance shop. An air compressor, propane storage cage, and a covered hazardous waste storage area are located at the exterior west side of the maintenance building. A concrete pad associated with a former on-site water recycling facility (discussed further in Section 4.1) is located south of the maintenance building. The concrete pad contains a sewer lift station, a San Diego Gas & Electric (SDG&E)-owned transformer, a truck trailer used for storage, and a wooden storage building. A 1,500-gallon divided compartment aboveground storage tank (AST) is located to the south of the concrete pad. The AST is discussed further in Section 2.3.5. Two trash compactor units are located on a concrete pad to the southwest of the maintenance building. The compactor units are used by a current tenant of the subject property (Urban Corps Recycling).

The property is currently home to the San Diego Chargers National Football League football team, and is also shared with the San Diego State University Aztecs college football team. Tenants within the stadium itself include numerous food and retail vendors. Annual recurring events at the stadium include the Holiday Bowl, Poinsettia Bowl, and various High School football games. Other events at the stadium include concerts, moto-cross events, soccer games, religious conventions, and several other similar events. The parking lots around the stadium are also used for car sales, swap meets, recreational vehicle shows, RaceLegal events, antique collector car parts exchanges, police academy training, and several other similar events.

During the site visit, no visual evidence of potable water wells, dry wells, septic tanks, or leach fields was observed on the subject property. Several monitoring wells, recovery wells, and soil vapor extraction (SVE) system wells were observed at the subject property. The monitoring wells and SVE systems are discussed further in Section 4.3. In addition, sewage lift stations were observed at the exterior south side of the maintenance shop, exterior north side of the practice field restroom facilities, and within the maintenance area on the Basement Level 1 of the stadium. The sewage lift stations are discussed further in Section 2.3.10.

No visual evidence of discolored soil, water, or unusual vegetative conditions or odors was observed during the site visit. The general layout of the subject property is illustrated in Figure 2 Site Plan, and the inset of the maintenance area is shown in Figure 3. Representative site photographs are provided in Appendix A.

2.3.2 Surrounding Properties

The subject property is bordered to the north by Friars Road and San Diego Mission Road followed by residential properties, vacant land, a San Diego Fire Station (currently under construction), Mission Village Drive, and the Kinder Morgan Energy Partners (KMEP) Mission Valley Terminal (MVT) bulk petroleum terminal (to the northeast). The subject property is bordered to the east by Qualcomm Way/Rancho Mission Road and I-15, beyond which are residential and commercial properties. The subject property is bordered to the south by the San Diego River followed by several multi-tenant commercial office buildings along Camino Del Rio North, beyond which is I-8. The subject property is bordered to the west by multi-tenant commercial office buildings, and a multi-tenant retail shopping center that includes a Lowes Home Improvement Center, Costco Wholesale and Tire Center, Ikea, and restaurants and retail stores.

AECOM did not observe any dry cleaning facilities in the immediate vicinity (500 feet) of the subject property. The KMEP MVT facility located adjacent to the northeast corner of the subject property has been identified with a known release that has impacted the subject property. The MVT facility is discussed further in Sections 4.3, 5.3, 5.4, and 5.5. The San Diego River abuts the subject property along the southern boundary. No additional sensitive receptors (i.e., day care centers, schools, hospitals) are adjacent to the subject property. With the exception of the MVT facility, no other off-site sources of concern were identified based on AECOM's site reconnaissance of the surrounding neighborhood.

2.3.3 Petroleum Products and Hazardous Materials

Small quantities (less than 5 gallons) of motor oil and petroleum-based lubricants; 5- and 10-gallon buckets of lubricating oils; a flammable materials storage cabinet containing five 5-gallon containers of gasoline, 5-gallon buckets of paint, and 1-gallon containers of paint thinner; two flammable materials storage cabinets containing 5-gallon buckets and aerosol cans of paint and primer and 1-gallon containers of paint thinner; and welding gases were observed inside the maintenance shop building on the southwestern portion of the subject property. The exterior yard of the maintenance area contained five 55-gallon drums of lubricating oil, one 55-gallon drum of antifreeze, and an AST containing gasoline and diesel. During the site visit, AECOM observed a hazardous waste storage area containing two 55-gallon drums of waste oil and a drum containing used oil and gasoline filters, a separate propane storage cage containing six propane canisters, and a storage cage containing an air compressor, all of which were located at the exterior west side of the maintenance shop building. AECOM observed an approximate four4-square-foot area of relatively minor oily staining within the hazardous waste storage area. The staining in this area is considered a DMC. The AST is discussed further in Section 2.3.5 and the hazardous waste storage area is discussed further in Section 2.3.8.

In addition, a paint storage area containing 5-gallon cans of paint was located west of the storage structure and a pesticide storage building containing several 50-pound bags and small (less than 5-gallon) containers of pesticides and fertilizer were located in the southwestern corner of the subject property. Pesticides are stored within a locked, circular concrete block structure to the north of the three-sided storage structure in the southwestern corner of the subject property. According to Mr. Gibbs, Stadium Turf Manager, fertilizers and pesticides are applied to the field within the stadium on an as-needed basis via boom sprayer and granular application. Mr. Gibbs also indicated the sod farm and practice field are treated with herbicides and fertilizers in a similar manner, as needed, but that no pesticides are used in those areas. No significant staining was observed within any of these storage areas. Within the stadium, AECOM observed a flammable materials cabinet containing eight 5- and 10-gallon containers of gasoline and a flammable materials cabinet containing aerosol paints, primers, paint thinners, and lubricating oils located inside the ground crew maintenance room in the East Tunnel of the stadium. No evidence of spills or significant staining was observed within these storage areas. Relatively minor paint staining and miscellaneous debris (i.e., scrub brushes, towels, etc.) were observed inside a sink basin at the entrance to the ground crew maintenance room.

One 55-gallon drum of hydraulic oil and six 10-gallon buckets of hydraulic oil were observed inside the elevator maintenance room associated with the elevators located on the east side of the stadium. A 55-gallon plastic drum containing water treatment chemical (Chemsearch 777) for the on-site boilers and a flammable materials cabinet containing nine 10-gallon containers of gasoline is stored within the maintenance area in the Basement Level 1 of the stadium. In addition, AECOM observed numerous retail-sized containers of janitorial cleaning supplies located on carts within janitorial storage closets on each level of the stadium. No staining or spills were observed in the vicinity of these materials.

During the site visit, AECOM observed numerous (more than 20) 5-gallon containers of Freon inside a storage closet in the HVAC room located on Basement Level 2 of the stadium. According to Mr. Ritz, Building Maintenance Supervisor, the Freon is used in the repair and maintenance of heating, ventilation, and air conditioning (HVAC) systems located throughout the stadium building. No staining or other indication of release was noted in the area of the Freon. Several (more than 20) small-sized refrigerators were also observed stored in the HVAC room. According to Mr. Ritz, these refrigerators are used throughout the stadium as needed. No other significant quantities of hazardous materials were identified by AECOM during the site visit.

2.3.4 Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs)-containing dielectric fluids have been widely used as coolants and lubricants in transformers, capacitors, and other electric equipment due to their insulating and nonflammable properties. Based on the age of the improvements on the subject property (1967), there is the potential for PCBs to be present on-site.

Numerous pad-mounted transformers were observed throughout the subject property. Labeling indicating PCB content was not observed on any of the transformers observed. No staining or visual evidence of a hazardous materials release was observed in the vicinity of the transformers. According to facility personnel, and observations made during the site visit, oil-containing transformers are located in four areas around the stadium, within the surrounding parking lot, as shown in Figure 2. Based on the age of the facility (1967), it is possible that PCB-containing oils are present in the transformers. Facility personnel were unaware if upgrades to the transformers had historically been conducted. Based on the age of the subject property, the potential for PCB-containing dielectric fluids exists. Transformers located in the interior of the stadium are dry-type.

The subject property was identified in a Federal Toxics Tracking System (FTTS) database listing. According to the listing, in 1988 a "Section 6 PCB Federal investigation" associated with Toxic Substance Control Act (TSCA) enforcement actions and compliance activities was conducted for the subject property. A violation was noted; however, no further information was provided. Based on this information and the unknown status of PCB-containing oils in the existing exterior transformers, the potential for PCB-containing equipment to be present on-site is considered a REC. This listing is also discussed in Section 5.3.1.

AECOM observed 11 passenger elevators, one service elevator, and six lifts located in the stadium. According to Mr. Ritz, the elevators are hydraulically operated and the lifts are electric. AECOM observed the elevator machine rooms and no leaks or stains were observed on the concrete floors.

Two trash compactors are located in the maintenance area on the southwestern portion of the subject property. The trash compactors are used by a current tenant of the subject property (Urban Corps Recycling). No significant staining was noted in the area of the trash compactors.

No other hydraulic equipment was observed on the subject property.

2.3.5 Aboveground Storage Tanks

Two emergency generators are utilized at the subject property. AECOM observed one emergency generator located within a fenced enclosure on the north side of the stadium and one generator located at the exterior west side of San Diego Fire Department Station 45. The locations of these generators are shown in Figures 2 and 3. The generators are situated on concrete pads. The generator located at the stadium is fueled by an approximately 200-gallon diesel fuel AST contained

within the base of the unit and the generator located at San Diego Fire Department Station 45 is fueled by an approximately 50-gallon diesel fuel AST contained within the base. The tanks are constructed of steel with built-in secondary containment. No evidence of leaks or staining was observed in the vicinity of the generators or associated tanks.

In addition, a divided compartment gasoline and diesel AST is located in the maintenance area on the southwestern portion of the subject property. According to information provided by Mr. Fergusson, City of San Diego TEEM Program Manager, the AST is a 1,500-gallon divided compartment tank that contains approximately 500 gallons of gasoline and 1,000 gallons of diesel. The AST was installed at the subject property in 2004 and has been used to fuel stadium maintenance vehicles (i.e., golf carts) since that time. The AST is located inside a fenced-in area surrounded by protective bollards and secondary containment. A fuel dispenser is located on top of each end of the AST (two total dispensers). No evidence of leaks or staining was observed in the vicinity of the AST.

AECOM observed three approximately 5,000-gallon water tanks associated with a boiler unit inside the maintenance room on Basement Level 1. The water tanks contain water used in operation of the facility boilers. No evidence of leaks or staining was observed in the vicinity of the ASTs.

No additional ASTs were observed at the subject property.

2.3.6 Underground Storage Tanks

Based on observations made during AECOM's site visit and information provided by property management, no underground storage tanks (USTs) are currently located at the subject property. Historic USTs are discussed further in Sections 5.3.1 and 5.5. No evidence of current USTs (i.e., vent or fill pipes) was observed during the site visit.

2.3.7 Solid Waste

Solid waste is collected in a variety of solid waste receptacles and dumpsters located throughout the property. In addition, during the site visit, AECOM observed several above-and in-ground grease traps associated with on-site food vendor operations. No evidence of inappropriate disposal activities and no significant staining were observed in the vicinity of any of the dumpsters, waste receptacles, or grease traps. Allied Waste services the dumpsters on an as-needed basis, and Diamond Environmental services the grease traps.

2.3.8 Hazardous Waste

Two 55-gallon drums of waste oil and one 55-gallon drum labeled as containing used oil and gasoline filters were observed in the covered hazardous waste storage area at the exterior west side of the maintenance shop. According to Mr. Ritz, the waste oil is generated from routine building and stadium vehicle (i.e., golf cart) maintenance and is removed from the subject property on an as-needed basis. AECOM observed an approximate 4-square-foot area of de minimis oily staining on the concrete adjacent to the hazardous waste storage area and in the unpaved area beyond the hazardous waste storage area.

Universal wastes, such as spent fluorescent light tubes and batteries, are generated at the subject property. Universal waste is stored in the three-sided concrete storage structure to the south of the MTS Trolley line and is disposed of off-site on an as-needed basis. Lead-acid vehicle batteries are stored on a cart within the maintenance building. Two batteries were present on the cart at the time of AECOM's inspection. No staining was observed in the vicinity of the battery cart. Based on the

relatively limited quantities and proper storage of universal waste, the presence of universal wastes at the property is not expected to represent a REC.

In addition, the subject property was identified in several California Hazardous Waste Information System (HAZNET) database listings in the site-specific database report, as discussed in Section 5.3.1.

2.3.9 Water

The City of San Diego provides water to the subject property. No potable water wells were observed at the subject property or reported by the site contacts.

2.3.10 Wastewater

Wastewater discharges at the subject property include effluent from human consumptive use from on-site restrooms and sinks, which discharge to the municipal sanitary sewer system. During the site visit, AECOM observed three sewer lift stations located at the subject property. According to Mr. Hawkins, Building Supervisor, the lift stations pump sanitary effluent from the subject property to the sanitary sewer system. Mr. Ritz indicated the lift stations are also serviced by Diamond Environmental.

2.3.11 Stormwater

Stormwater from the subject property appears to drain via sheet flow into culverts and storm drains located throughout the subject property, which direct storm water toward several storm drain outfalls that discharge to the San Diego River. No significant staining was observed in the parking areas of the subject property. No potential impacts to storm water were identified during AECOM's site visit. The approximate storm drain outfalls along the southern boundary of the property are shown in Figure 2.

2.3.12 Heating and Cooling

The stadium building is heated and cooled by roof-mounted HVAC units. SDG&E provides electricity and natural gas service to the subject property. The maintenance shop, storage building, and practice field restroom building are neither heated nor cooled. An electric HVAC unit located on the exterior west side of the San Diego Fire Department Station 45 facility cools the mobile home and Quonset hut buildings associated with the fire station.

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3.0 Environmental Setting

3.1 Topography

According to the U.S. Geological Survey topographic map of the subject property area (La Mesa, California Quadrangle, 1994), the subject property is relatively flat, with a slight downward slope toward the San Diego River, and is located at an elevation of approximately 60 feet above mean sea level (msl). According to Google Earth elevation data, the northwestern area of the subject property near Friars Road is at a maximum elevation of approximately 100 feet msl, and slopes gradually to the east to approximately 70 feet msl in the northeastern corner of the property. The southeastern area of the subject property is at approximately 55 feet msl and gradually slopes to approximately 50 feet msl to the west.

3.2 Soil/Geology

Based on information obtained from the various geotechnical reports prepared for the original stadium development, as well as recent groundwater monitoring reports prepared by Arcadis US Inc. (Arcadis) (on behalf of KMEP) and Geofirma (on behalf of the City of San Diego), the stadium property is underlain by fill soils (called "made land" in the EDR report), alluvium, and the Friars Formation. A landslide was also mapped in the northwestern corner of the subject property parking lot area during the geologic reconnaissance work conducted for the original stadium development. The fill material used at the subject property primarily consisted of Stadium Conglomerate (clayey sand and gravel) and some of the underlying Friar's formation. According to the EDR report, the soils along the southern boundary of the subject property, adjacent to the San Diego River, are classified as "riverwash," which is characterized as excessively drained, gravelly coarse sand with clayey soils that have very slow infiltration rates and a high water table.

The fill material on the subject property overlies recent alluvial deposits that exhibit considerable variation in composition and thickness. The source of the alluvium is the San Diego River to the south and the Murphy Canyon drainage to the north. In general, the alluvium is primarily sandy with some gravel, silt, and clay interbeds. The sands and gravels vary from loose to dense, and the fine-grained materials vary from soft to stiff. The lower 5 to 10 feet of the alluvium (significantly thicker in some areas) typically consists of dense gravel.

According to geologic information provided in the environmental database report, the bedrock geology of the subject property is of the Cenozoic era, Tertiary system, and Eocene rocks series.

3.3 Groundwater/Hydrology

Groundwater beneath the subject property has been well characterized as a result of the upgradient contaminant plume associated with the KMEP property. More than 100 groundwater monitoring wells are present across the stadium property, most of which are clustered in the northeastern and southwestern parking areas surrounding the stadium. According to a recent groundwater monitoring report prepared by Arcadis (on behalf of KMEP), the depth to groundwater generally ranges between 20 to 25 feet below ground surface (bgs) in the northeastern quadrant of the subject property parking area, and is somewhat deeper (approximately 30 to 35 feet bgs) along the northern boundary of the property, near Friars Road, and around the perimeter of the current stadium structure. A groundwater

pump and treat system was previously operated as part of the off-site KMEP property, which lowered the groundwater table in the northeastern quadrant of the subject property. This system was shut down in late 2013, and it is AECOM's understanding that the water table in this area has not yet fully recovered to pre-pump and treat conditions.

In the southwestern quadrant of the subject property, including in the vicinity of the maintenance area and practice field, the depth to groundwater is somewhat shallower, and is generally found at approximately 10 feet bgs. There are no known monitoring wells in the northwestern and southeastern corners of the subject property. Based on previous hydrogeologic information obtained as part of the KMEP groundwater monitoring program, groundwater flows in a southwesterly direction beneath the subject property.

4.0 Site and Area History

Historical information for the subject property and surrounding properties is based on AECOM's review and analysis of the following historical sources:

- Aerial photographs dated 1949, 1953, 1964, 1970, 1979, 1985, 1989, 1994, 2005, 2009, 2010, and 2012;
- Topographic maps dated 1903, 1904, 1942, 1947, 1953, 1967, 1975, 1994, and 1996;
- City directories for the years 1903, 1907, 1921, 1927, 1933, 1938, 1940, 1943, 1945, 1948, 1950, 1952, 1955, 1956, 1960, 1961, 1962, 1965, 1966, 1970, 1971, 1975, 1976, 1980, 1984, 1989, 1991, 1992, 1995, 2000, 2006, 2008, and 2013;
- Building Department records provided in the EDR report;
- Interviews conducted with Qualcomm Stadium representatives Mr. Bill Gibbs, Stadium Turf Manager, who has been associated with the subject property for approximately 30 years; Mr. Leon Hawkins, Building Supervisor, who has been associated with the subject property for approximately 25 years; and Mr. Thomas Ritz, Building Maintenance Supervisor, who has been associated with the subject property for approximately 15 years;
- Interviews conducted with City of San Diego representatives Ms. Joy Newman, Hazardous Materials Program Supervisor, who has been associated with the subject property for approximately 14 years; Mr. Craig Fergusson, TEEM Program Manager, who has been associated with the subject property for approximately 15 years; and Mr. Andy Cerin, Hazardous Materials Inspector, who has been associated with the subject property for approximately 10 years; and
- Interviews with Mr. Doug Roff, hydrogeologist with AECOM. Mr. Roff provided information related to the MTS Trolley installation that was conducted in the middle 1990s.

Significant historical information was also gathered through review of previously prepared historical reports for the subject property, which are discussed in Section 4.3. According to EDR, Sanborn® Fire Insurance Map coverage was not available for the subject property.

4.1 Subject Property

Historical research indicates that from approximately 1909 through late 1940s, the subject property was part of the Guglielmetti Dairy. From at least 1949 through the early 1960s, the subject property consisted of agricultural land (row crops including alfalfa as well as grazing land) and dairy farm buildings in the northern portion; dirt roads, dairy farm buildings, and undeveloped land in the central portion; and undeveloped land and agricultural land (row crops) in the southern portion. At that time, the San Diego River bisected the subject property, creating eastern and southeastern sectors of the stadium property. The Guglielmetti Dairy was sold to another local dairy owner, Pete Ferrari, in 1962. Construction of a stadium structure at the subject property commenced in 1966 and continued through 1967. By 1967, the subject property was developed with a stadium structure, asphalt-paved parking areas, and a grassy area in the southwest corner. The San Diego River was relocated at that time. In approximately 1968, a maintenance building was constructed on the southwest portion of the subject property, and a leaded gasoline UST was installed in the vicinity of the pesticide storage building.

By approximately 1979, the grassy area in the southwestern corner of the subject property was utilized as a practice field and sod farm. Between approximately 1981 and 1985, the maintenance building in the southwestern portion of the subject property was occupied by the Aqua I facility (water reuse pilot plant). Operations at the treatment plant included the use of water lilies to reclaim 25,000 gallons of wastewater daily. The water produced was used to irrigate the on-site sod farm. In 1991, the leaded gasoline UST was removed and three USTs (one gasoline and two diesel) were installed in its location. In 2004, the USTs were removed from the subject property. The former USTs are discussed further in Section 5.5.1.

A review of building department records indicated that a series of temporary tenant and facility improvement permits were granted for the stadium from 2004 through 2015. The subject property address (9449 Friars Road) was listed in the historical city directories as being occupied by a variety of stadium-related entities for the years 1970 through 2013. No information of environmental significance was identified in these records.

Based on the historical use of the subject property as agricultural from the early 1900s through the mid-1960s, and the use of portions of the southwestern property as a sod farm from the late 1970s to present day, residual concentrations of organo-chlorine pesticides (OCPs) may be present in shallow soil of the subject property. Based on the nonresidential use of the subject property, the potential presence of residual concentrations of OCPs remaining in the shallow on-site soils (if any) is considered a DMC, since (in AECOM's opinion), the OCPs have a low potential to exceed regulatory action levels for commercial properties. Additionally, grading or earthmoving activities often accompany property redevelopment, which occurred when the dairy farm was converted to land uses now present in the southwest corner of the subject property. Since these activities mix and blend the soils, it is AECOM's opinion that concentrations of OCPs attributable to the dairy activities have been significantly reduced.

4.2 Off-site Properties

Historical research indicates that the surrounding area consisted mainly of agricultural land with scattered dairy farms from the late 1890s through the late 1940s. In approximately 1940, a farmer's dirt road was present to the south of the subject property. By approximately 1949, the farmer's road became U.S. Highway 80 (currently I-8), and Friars Road had been developed to the north of the subject property. Commercial properties were developed to the south of I-8 in the early 1950s. By approximately 1954, the ASTs associated with the current KMEP facility were located to the northwest of the subject property. The last of the surrounding area dairy farms had closed by 1960. By approximately 1964, I-15 had been constructed to the east. By approximately 1970, Friars Road to the north had been expanded, the property to the west of the subject property had been graded, and commercial properties had been developed to the south of the subject property across the San Diego River. Commercial development of the properties to the south beyond the river and east beyond I-15 was apparent by 1979 and continued through the 1980s and 1990s.

Between approximately 1987 and 1991, approximately 200,000 gallons of gasoline had reportedly leaked from a corroded subsurface pipeline near the KMEP manifold that carries gasoline to the various ASTs on the KMEP property (northeast adjacent to the subject property). Remedial activities have been conducted at the KMEP facility since the early 1990s. The KMEP facility is discussed further in Sections 4.3, 5.3.2, and 5.5.

Construction of the multi-tenant commercial and retail facilities to the west of the subject property commenced in the late 1980s and continued through the late 1990s. By 2001, residential properties

had been developed to the northwest beyond Friars Road and to the east beyond I-15. Construction of the fire station facility located to the north of the subject property across Friars Road commenced in 2014 and is ongoing. Since that time, the surrounding area has been essentially unchanged from conditions observed at the time of the site visit. With the exception of the KMEP facility, no other historical off-site sources of concern were identified.

4.3 Previously Prepared Environmental Reports

During the course of this assessment, several previously prepared environmental reports for both the subject property and surrounding area were provided for AECOM's review by various City and/or County of San Diego department officials, or were available for download from the California Regional Water Quality Control Board (RWQCB) GeoTracker® online databases. A review of these reports indicates that the site and area history and regulatory research contained within these reports are generally consistent with AECOM's own independent research and analysis.

Phase II Environmental Site Assessment Report, Soil Gas Survey and Soil Sampling, Qualcomm Stadium, San Diego, California. Prepared by Converse Consultants for Van Dyk Tank Lines. Dated May 4, 2006.

On December 7, 2005, a tanker truck containing gasoline overturned at the southeast corner of Mission Village Drive and San Diego Mission Road. The overturned tanker truck resulted in a gasoline spill and fire in the northeastern quadrant of the subject property, to the east of the central entrance to the stadium. A copy of a Phase II Environmental Site Assessment Report completed by Converse Consultants (Converse), dated May 4, 2006, was obtained from the County of San Diego Department of Environmental Health (DEH) and is provided in Appendix B-1. The approximate location of the tanker spill is shown in Figure 2.

The quantity of gasoline released is not detailed in the information reviewed associated with this incident. Fuel and water (used to extinguish the fire) flowed to the south of the accident site, and into the northeastern parking lot area of the subject property. The report notes that liquids were contained in this area and removed by a vacuum truck within approximately 48 hours after the incident and impacted surface soils were removed. The Phase II report indicates that approximately 22 soil-vapor borings were completed at depths of 3 and 5 feet bgs, and seven soil borings were completed to a maximum depth of approximately 15 feet bgs in the area of the spill on the subject property. Based on the analytical data obtained, the soil was not found to be impacted above residential remedial standards. Two locations in the area of the spill on the subject property were identified with potential soil vapor impacts in the upper (approximate) 5 feet bgs that exhibited concentrations of benzene and toluene above the California Human Health Screening Levels (CHHSLs) resulting from the this incident, and a third location was identified that was likely associated with the upgradient KMEP methyl tertiary butyl ether (MTBE) plume.

According to correspondence provided to AECOM by the County of San Diego DEH, an additional area of impact was also identified at a storm drain outfall adjacent to the San Diego River. Information reviewed indicates that, shortly after the incident occurred, an area of gasoline-impacted liquids was identified in an area where a stormwater outfall from the subject property parking lot intersected the San Diego River Basin. Although a figure showing sampling locations at this outfall was provided in various correspondences, the exact location of this outfall is unclear, based on the available information, but it is assumed

to be one of the stormwater outfalls along the southern boundary of the subject property. These outfalls are shown in Figure 2. Correspondence indicated that remediation and sampling efforts associated with the outfall area were completed by the end of December 2005, and an application for the Voluntary Assistance Program (VAP) was submitted in January 2006. Based on information obtained from the 2006 Phase II report, no further remedial actions were required by the lead agency, U.S. Fish and Wildlife Service. A copy of the VAP application and associated figures and correspondence are provided in Appendix C.

The spill incident involving the tanker truck has a “closed” status in both the RWQCB GeoTracker® and San Diego County Site Assessment and Mitigation (SAM) department databases. Based on the closed status of this incident, impacts to soil and groundwater from the former on-site spill is considered an HREC with respect to the subject property; however, based on information provided in the subsurface investigation report, soil vapor concentrations existed above residential and commercial CHHSLs. Therefore, the presence of soil vapor concentrations above the CHHSLs presents a REC with respect to the subject property. This REC is further explained in Section 5.4.

Subsurface Assessment Report, Qualcomm Stadium Parking Lot, 9449 Friars Road, San Diego, California. Prepared by SCS Engineers for the County of San Diego Department of Environmental Health. Dated December 20, 2013.

On April 17, 2013, a tanker truck operated by Apex Tank Lines, Inc. (Apex) containing approximately 8,000 gallons of ethanol with trace quantities of gasoline-range total petroleum hydrocarbons (TPHg) overturned at the intersection of Mission Village Drive and San Diego Mission Road, adjacent to the northeastern boundary of the subject property parking area. Approximately 4,500 gallons of ethanol was recovered by emergency response personnel at the scene, approximately 2,000 gallons of ethanol reportedly remained inside the truck, and approximately 2,500 gallons of ethanol pooled into two areas in the subject property parking area (Area A and Area B, shown in Figure 2). The remaining approximately 3,500 gallons of ethanol was not recovered, and it was assumed to have either evaporated into the atmosphere, infiltrated through cracks in the pavement, or spilled into nearby storm drains on and around the subject property. Sand was placed into the affected storm drains in the area to prevent further spread of spilled ethanol. A Subsurface Assessment Report was prepared for this incident by SCS Engineers in December 2013; a copy of this report was downloaded from the RWQCB GeoTracker® website and relevant portions are provided in Appendix B-2.

As part of the initial spill response efforts, limited soil sampling was conducted on April 10, 2013, when four soil samples were collected from shallow soils (upper approximate 6 inches) in Areas A and B (shown in Figure 2). In September 2013, to evaluate if a release had occurred to the subsurface soils near catch basin inverts, an additional 13 soil borings were completed in the immediate vicinity of Areas A and B and adjacent to the catch basins affected during the spill. Soil samples collected from the borings were analyzed for ethanol and benzene, toluene, ethylbenzene, xylenes (BTEX). In addition, ethanol was analyzed in groundwater samples collected from select wells in the area of the spill as part of the quarterly monitoring conducted for the upgradient KMEP property during the second and third quarters of 2013. All sampling locations associated with this effort are shown in the figures provided in the report in Appendix B-2.

Ethanol was detected between 210 milligrams per kilogram (mg/kg) and 7,800 mg/kg in soil samples collected shortly after the incident. During the additional investigation conducted in September 2013, ethanol was detected in the upper (approximate) 1 foot bgs in two soil borings at 0.55 mg/kg and 63 mg/kg. Ethanol was detected in one well during the second quarterly groundwater monitoring event conducted by KMEP's consultant Arcadis, but was not detected above laboratory detection limits in the same location during Arcadis' third quarterly groundwater monitoring event. The subsurface investigation report concluded that the sorbed-phase ethanol impacts in soil were limited, and that the impacts had degraded rapidly. This was based on the decrease in concentrations of ethanol detected between the initial event and subsequent sampling, as well as the ethanol degradation half-life calculations that were completed during this investigation. No impacts were found in deeper soils located in the vicinity of the storm drains where free-phase ethanol was observed at the time of the incident. Ethanol impacts were also observed to be short lived in the dissolved-phase, which had impacted a localized area of shallow groundwater. No further action for investigation or remediation was recommended by SCS at the conclusion of the subsurface assessment report, and a letter concurring with this recommendation was issued by the San Diego County DEH on February 11, 2014. The DEH letter also stated that changes to land use on the subject property (currently commercial) may require reassessment of this incident. Based on this recommendation by the DEH, this incident represents a CREC with respect to the subject property. A copy of this letter is provided in Appendix C.

Numerous reports and associated correspondence were available for the off-site and hydrogeologically upgradient KMEP, both for what is considered the "on-terminal" area, upgradient of the subject property where the release originated, and the downgradient "off-terminal" area, which extends off of the KMEP MVT site and onto the subject property. The focus of the discussion below pertains to the off-terminal areas associated with the subject property, as it relates to the history of the release and the current conditions at the subject property, and does not include a discussion of the off-terminal area that extends beyond the subject property near the San Diego River, to the south and west of the subject property. Pertinent information from select other sources is referenced herein to present an understanding of the release history and conditions beneath the subject property. Additional information related to the KMEP MVT incident is referenced throughout other sections of this report.

Site Conceptual Model and Off-Terminal Corrective Action Plan, Mission Valley Terminal, San Diego, California. Prepared by LFR Levine-Fricke for SFPP, LP, an operating partnership of KMEP. Dated September 8, 2005.

According to the 2005 Site Conceptual Model (SCM) prepared by Arcadis, petroleum products were brought to the MVT facility (northeast adjacent to the subject property) through a pipeline that originated in the Los Angeles Basin. Products that were historically stored at the MVT facility included leaded and unleaded gasoline, gasoline additives, jet fuel, diesel, ethanol, and transmix (a mixture of gasoline, diesel, and jet fuel).

Characterization and remediation of groundwater in the vicinity of the KMEP property had been ongoing since the late 1980s. A pump and treat groundwater remediation system, constructed between 1993 and 1994, began operating in May 1994 to capture and treat both free-phase (light non-aqueous phase liquid, or LNAPL) and dissolved-phase petroleum hydrocarbons in groundwater to the north of the stadium parking lot. Seven extraction wells were constructed as part of this original pump and treat system. In approximately 1996,

MTBE was added to the sampling program, and it was at that time that dissolved-phase MTBE was detected both in the on-terminal and off-terminal areas. Additional monitoring wells were installed in the stadium parking lot in 1998 to further delineate the extent of MTBE impacts, which were found to extend to the southwestern corner of the stadium property.

Several additional phases of investigation and remediation were completed subsequent to the discovery of the MTBE plume. A full scale SVE system was installed and began operation in 1999, with expansion and improvements through the early 2000s. Improvements were also made to the groundwater extraction and monitoring system in 2003. This report discusses remedial activities planned to mitigate impacts in the off-terminal area (including the off-terminal LNAPL source abatement and off-terminal dissolved phase monitored natural attenuation), the off-terminal corrective actions, remediation performance metrics and cleanup milestones, and the monitoring and reporting program planned for the KMEP property. A summary of remedial actions conducted as part of the off-terminal area are discussed further in Section 5.5.3. A copy of the text associated with this report is provided in Appendix B-3.

Remedial Compliance Evaluation – Northwest Off-Terminal LNAPL Zone, Mission Valley Terminal, San Diego, California. Prepared by Arcadis US, Inc. on behalf of SFPP, LP, an operating partnership of KMEP for the California Regional Water Quality Control Board – San Diego Region. March 28, 2014.

This report contains an evaluation of remedial compliance for the off-terminal LNAPL zone, which extends off the KMEP MVT property beneath the subject property. Remediation of the off-terminal LNAPL area was conducted to comply with Directive No. 2 of Addendum No. 5 of Cleanup and Abatement Order (CAO) 92-01 (discussed further in Section 5.5.3). The remedial strategy used to meet this directive was a combination of SVE and lowering of the groundwater table.

Remedial activities associated with the off-terminal LNAPL zone were completed in two areas. Remediation of the primary LNAPL zone was completed by December 2010 with concurrence from the RWQCB. Remediation of the off-terminal LNAPL zone was conducted through the end of 2013. The Remedial Compliance Evaluation Report concluded that metrics used to track remediation had indicated that remedial actions achieved compliance with the directives set forth in Directive No. 2 for the off-terminal area. In addition to evaluating both the operation and performance-based lines of evidence to evaluate whether LNAPL had been remediated to the extent practicable, a soil vapor rebound test was conducted that confirmed compliance with this directive. A copy of the text, tables, and figures associated with the Remedial Compliance Evaluation report is provided in Appendix B-4. The SVE wells and LNAPL areas are shown in the figures provided in this report.

Off-Terminal Groundwater Monitoring Report, Fourth Quarter of 2014, Mission Valley Terminal, San Diego, California. Prepared by Arcadis US, Inc. on behalf of SFPP, LP, an operating partnership of KMEP for the California Regional Water Quality Control Board – San Diego Region. Dated January 30, 2015.

According to the January 2015 (most recent) groundwater monitoring report prepared by Arcadis that was available on the RWQCB GeoTracker® online database, the current groundwater monitoring program (as of the fourth quarter 2014) consists of gauging 151 off-terminal wells for groundwater elevation data, and collecting groundwater samples from 107 monitoring wells and 21 groundwater extraction wells, with the exception of an annual

groundwater monitoring event, when all 151 off-terminal wells are sampled. The annual event occurs in the fourth quarter, which is the subject of this report.

Many of the monitoring wells are clustered in the northeastern quadrant of the subject property parking area, and almost all of the wells are located within the boundary of the stadium property. A copy of the text, tables, and figures from this report is provided in Appendix B-5. The location of the on-site monitoring wells is shown in Figure 2 of the report provided in Appendix B-5.

This report stated that active remediation in the distal, off-terminal wells was discontinued in late 2013, and that groundwater extraction at the proximal wells was discontinued during the first quarter of 2014. Dewatering was historically performed to lower the water table and fully expose the off-terminal LNAPL zone to SVE system influence. Since the groundwater extraction system was shut down, groundwater elevations in the subject property parking areas have generally risen, but there was still an area identified where elevations are “lower” (presumably than pre-extraction groundwater levels) in the vicinity of the off-terminal groundwater extraction (GWE) wells, in the northeastern quadrant of the subject property. A groundwater depression was also evident near San Diego Mission Road, closer to the active on-terminal GWE wells.

The report concluded that, of the 151 wells sampled, total petroleum hydrocarbons as diesel (TPHd) was reported in three wells at concentrations close to the laboratory reporting limits, and toluene was reported in one well at a concentration that did not exceed the applicable Maximum Contaminant Level (MCL). Benzene was reported in one well at a concentration slightly above the MCL; however, the report states that the affected well has historically yielded hydrocarbon results that are not consistent with an adjoining well, which was installed to confirm results in the affected well. MTBE was not detected at concentrations exceeding the primary MCL, but a marginal exceedance of the secondary MCL was detected at one well. This well was later resampled, and MTBE was not detected. Further, it was concluded that tert-butyl alcohol (TBA), which is currently the primary remaining contaminant of concern (COC) associated with the plume, was also not detected in the 151 Off-Terminal wells at concentrations above the California Department of Public Health (CDPH) response level of 1,200 parts per billion (ppb), but that it was detected above the CDPH notification level of 12 ppb in seven wells. This report also indicated that the groundwater monitoring in the off-terminal area was to be suspended for the first quarter of 2015, pending RWQCB review of the Off-Terminal Groundwater Remedial Compliance Evaluation.

Post-Remediation Groundwater Quality, Mission Valley Aquifer, San Diego, California. Prepared by Geofirma Engineering, Ltd. And Intera, Inc. for the Office of the City Attorney and the Public Utilities Department – City of San Diego. March 17, 2015.

The City of San Diego contracted their consultant (Geofirma) to conduct an independent review of recent (2014) groundwater monitoring data collected by Arcadis on behalf of KMEP. Included in this report is an evaluation of groundwater monitoring data collected from City-owned monitoring wells MW-1 through MW-3 since they were installed in early 2014. MW-2 and MW-3 are located on the subject property, and MW-1 is located upgradient on the KMEP property.

This report indicates that a cleanup level of 12 ppb for TBA was “impliedly adopted” between KMEP and the RWQCB when they (RWQCB) authorized KMEP to increase their discharge of

treated groundwater to Murphy Canyon Creek in 2012, in order to try to meet the December 2013 cleanup goals stipulated in CAO 92-01, Addendum No. 5. This report provides several figures showing the change in the benzene, MTBE, and TBA plumes beneath the subject property between (approximately) 2002 and 2013. The extent of these contaminants beneath the subject property appears to have been greatly reduced over the past (approximate) 10 years, but the cleanup goal of 12 ppb for TBA had still not been achieved by the October 2014 groundwater monitoring event in wells up to 1 mile from the MVT site. Thus, the presence of TBA in groundwater, coupled with the presence of higher than “background” levels of total dissolved solids and anoxic conditions versus oxygenated groundwater that existed prior to commissioning the MVT, are factors that are inhibiting the redevelopment of the Mission Valley Aquifer for water supply purposes.

Further, this report concluded that the water table had not yet fully recovered to pre-groundwater extraction levels, estimating that groundwater in well R-9 still has to rise 7 feet to reach these levels. Soils above this depth may exist in the LNAPL smear zone, where “stranded” contaminants (if present) could impact groundwater as it returns to pre-extraction levels. However, until this condition occurs, groundwater sampling would not be effective in assessing whether, and to what extent, contaminants remain in the LNAPL smear zone. A copy of this report is provided in Appendix B-6. The presence of a groundwater contaminant plume beneath the subject property is considered a REC.

4.4 Interviews with Knowledgeable Persons

Mr. Douglas Roff, a Senior Hydrogeologist with AECOM’s Environmental Remediation Group in the San Diego, California office, was interviewed regarding his past experience and knowledge with the subject property. Mr. Roff has been with AECOM (formerly Barrett Consulting Group [BCG] and later Earth Tech) since 1995, and indicated that he had assisted with the MTS Trolley construction project that took place along the southern boundary of the property beginning in 1995.

Mr. Roff indicated that as part of (then) BCG’s on-call engineering contract with the Metropolitan Transit Development Board (MTDB – now part of San Diego Association of Governments), he had assisted with the Mission Valley West extension of the trolley line underneath the 1-15 freeway, at the San Diego River over-crossing bridge. This included the area along Murphy Canyon Creek north of its confluence with the San Diego River.

Petroleum-contaminated soil and groundwater were identified in the southeastern corner of the subject property, in the vicinity of the excavations for the transformer building foundation that was to be constructed in this area as part of the MTS Trolley extension project. As part of their contract, BCG assisted MTDB and its general contractor with characterization and manifesting of the petroleum-contaminated soil and groundwater in the area in order to accomplish the proposed construction. Mr. Roff noted that it was not the role of MTDB or its contractor to completely remediate this area, but to accomplish the construction in a manner that provided for environmental and worker/public safety and protection. Thus, excavations were limited to those required to accomplish construction, not to complete an investigation or remediation of the site. Mr. Roff did not have any knowledge of additional work performed at the site associated with, or subsequent to, this project.

A spill report from November 1995 provided both in the EDR report and in San Diego County DEH records indicates a release of approximately 1,000 gallons of a fuel and water mixture occurred in the southeastern parking lot as a result of dewatering activities associated with the MTS Trolley construction project. The spill reports associated with this incident are discussed further in Sections

5.3.1 and 5.5.2. It was Mr. Roff's understanding that a buried jet fuel line(s) running north to south, parallel to the west side of the I-15 freeway, was present in this area, which he recalled ran down to North Island Naval Air Station and/or San Diego International Airport. According to the City of San Diego Utilities Department drawings, a 10-inch fuel pipeline is present beneath Mission Center Road, to the east of the subject property. Mr. Roff indicated that gas chromatographs (GCs) of petroleum-contaminated soil and groundwater encountered during the MTS Trolley line construction project in the southeastern corner of the subject property closely matched the example jet fuel GC provided by the laboratory for comparison.

The status of the incident associated with the fuel and water spill is closed; however, the presence of soil and/or groundwater impacted with jet fuel in the southeastern corner of the subject property, the extent of which is unknown, presents a REC.

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5.0 Database and Records Review

5.1 User Provided Information

On July 7, 2015, Ms. Joy Newman, the City of San Diego Hazardous Materials Program Supervisor, provided AECOM a completed ASTM 1527-13 User Questionnaire, which summarized her knowledge of title records, environmental liens, specialized knowledge, and/or real estate value reduction issues associated with the subject property. Mr. Craig Fergusson, the City of San Diego TEEM Program Manager, also completed this questionnaire, which was provided to AECOM on July 9, 2015.

Neither Ms. Newman nor Mr. Fergusson was aware of any environmental liens or AULs having been placed on the subject property. Ms. Newman indicated that she is aware of past uses of the property as it pertains to the stadium, and that she is aware of the off-site release originating at the KMEP property, but that she does not have any specialized knowledge or experience that is material to RECs in connection with releases originating from the subject property that have not been otherwise evaluated and closed out. Mr. Fergusson indicated his involvement with the UST removal activities that have occurred at the subject property. Mr. Fergusson also indicated he was aware of an issue with dripping fuel associated with a leaky fuel dispenser, but that, to his knowledge, the dispensers were removed during the UST removal, and post-excavation sampling was not indicative of a release warranting further actions. Further information related to these incidents is discussed in Section 5.5. Copies of the completed questionnaires are provided in Appendix D.

5.2 Title Records/Environmental Liens

Per the agreed-upon scope of work, a chain-of-title was not conducted as part of this assessment; however, an Environmental Lien and AUL Search report was ordered from EDR as a part of this assessment. According to the Environmental Lien and AUL Search report, no environmental liens are recorded on the subject property, and no AULs are associated with the subject property.

5.3 Database Information

In accordance with the scope of work and ASTM Standard E 1527-13, a search of various governmental databases was conducted by EDR. The site-specific environmental database report was reviewed to evaluate if soil and or groundwater from an on-site and/or off-site source of concern has the potential to impact the subject property. Database abbreviations are provided in the site-specific environmental database report, as well as herein (as referenced).

The database report includes various reports detailing database information for each of the sites identified/geocoded within the specified radius. Only one additional site with recognized environmental risks was identified, but EDR was not able to map this site to a specific location due to insufficient/contradicting address information. This site, listed at 2240 Stadium Way, was included in the database report as an "orphan" site. AECOM requested information from the County of San Diego SAM program in order to determine the physical location and, based on the records provided, this site is actually located more than 2 miles east of the subject property, near Mission Center Drive. Therefore, this facility does not represent an off-site risk related to the subject property.

A summary of AECOM's review and analysis of the site-specific environmental database report is presented below. A copy of the database report is provided in Appendix E. Based on AECOM's research, the subject property is not located on or within a 1-mile radius of tribal lands.

5.3.1 Subject Property

The subject property address (9449 Friars Road) was listed in the following databases:

Occupant Name	Database
- Qualcomm Stadium	- San Diego Site Assessment and Mitigation (SAM) - Recovered Government Agency Leaking UST (RGA LUST)
- San Diego City – Qualcomm Stadium	- California Hazardous Waste Information System (HAZNET) - Recycling Facilities in California (SWRCY) - California Spills, Leaks, Investigations, and Cleanups (SLIC) - Underground Storage Tank (UST) - Aboveground Storage Tank (AST) - San Diego County Hazardous Materials Management Division (HMMD) - California Hazardous Material Incident Report System (CHMIRS)
- City of San Diego – Jack Murphy Stadium	- Statewide Environmental Evaluation and Planning System (SWEEPS) UST - Facility Index System (FINDS)
- Jack Murphy Stadium	- Federal Toxics Tracking System (FTTS) - Historical FTTS (HIST FTTS)
- Parking Lot – Jack Murphy Stadium	- CHMIRS
- Qualcomm Stadium Parking Lot Northeast (Parking Lot – Jack Murphy Stadium)	- SLIC
- United Press International, Trailer 11	- HAZNET
- Feld Motor Sports	- HAZNET
- Sports Illustrated, Trailer 6	- HAZNET
- Neilson Dillingham Builders, Inc.	- HAZNET
- City of San Diego	- HAZNET
- Milwaukee Journal Sentinel, Media Trailer 1	- HAZNET
- Associated Press, Trailer 1	- HAZNET
- Knight Ridder Tribune Photo Services	- HAZNET
- San Diego River Wetland Creation	- National Pollutant Discharge Elimination System (NPDES)
- Robbie Gordon Stadium Super Truck	- HAZNET
- Kodak, Trailer 18	- HAZNET
- Reuters, Trailer 8	- HAZNET
- Agence France Press	- HAZNET

Occupant Name	Database
- 9449 Friars Road	- CHMIRS - Emergency Response Notification System (ERNS)
- Qualcomm Stadium	- CHMIRS
- Parking Lot, Jack Murphy Stadium	- CHMIRS

The HAZNET database is primarily a tracking database for hazardous waste manifests received by the California Department of Toxic Substance Control (DTSC). Based on a review of the HAZNET listings, most appear to be associated with hazardous materials disposal associated with various occupants of the stadium, and do not warrant consideration as a REC.

Several active permits from 2012 are listed for the subject property, all of which have a Facility ID of 121360. Included under this Facility ID is a permit for a 1,500-gallon AST and a 1,000-gallon gasoline UST, universal wastes (batteries) and various other waste streams (waste oils, waste aerosols, paint waste, photochemical processing wastes, waste aqueous immersion cleaner, used absorbents and rags, and used oil filters), and materials storage permits for turf maintenance materials, fertilizers, lubricating oils, ethylene glycol, ammonium calcium nitrate, latex paints, and propane, oxygen, argon/carbon dioxide mix, and acetylene gases. The presence of ASTs and other chemicals, and the generation of hazardous or regulated wastes do not specifically present a REC in connection with the subject property. No USTs are currently present or in operation at the subject property. Waste storage areas were discussed in Section 2.0.

Jack Murphy Stadium is listed in the FINDS database (Registry ID No. 110011660103). No other information related to this listing is given in the database report. An NPDES permit exists for the subject property address. The NPDES permit (no number is provided) is listed as being associated with the San Diego River Wetland Creation and is shown as terminated as of June 13, 2006. San Diego City – Qualcomm Stadium is also listed in the SWRCY database (Registration ID No. 51841), and in the San Diego County HMMMD database (Facility ID No. 121360, California Environmental Reporting System No. CAL000022738). The HMMMD listing indicates the facility was permitted to handle regulated and hazardous materials, to generate hazardous waste, and to operate USTs. The permit status associated with this database indicates the permit expired on June 30, 2013. These database listings are primarily compliance related, and are not indicative of a release at the subject property. No RECs are identified specifically associated with any of these database listings.

The AST database identifies a 2,050-gallon AST registered for the subject property. No further information was provided related to this database listing. According to information provided by Mr. Fergusson, there is one 1,500-gallon divided compartment AST located near the maintenance shop in the southwestern corner of the subject property. Mr. Fergusson suggested that the capacity of the AST noted in the database listing may actually pertain to the overall aboveground storage capacity of the subject property, which includes the 1,500-gallon AST, on-site oil-filled electrical equipment (i.e., electrical transformers), and fuel tanks associated with emergency generators. This database listing is compliance related and not indicative of a release to the subject property.

The subject property is listed in the UST database as having a 550-gallon leaded gasoline UST installed in 1968 and removed in 1991, a 1,000-gallon regular unleaded UST installed in 1991 and removed in 2004, and two 1,000-gallon diesel USTs installed in 1991 and removed in 2004. These four USTs all have the same permit number (121360); however, no other information is provided in the EDR report associated with these USTs. The subject property is also listed in the SWEEPS

UST database with an active status, which indicates that three 1,000-gallon USTs (two of which contained leaded motor vehicle fuel, and one of which contained unleaded motor vehicle fuel) were located at the subject property. Qualcomm Stadium was also listed in the RGA LUST database in 2006 and 2007, but no other information related to these listings is provided in the EDR report. Based on the lack of information regarding this listing (i.e., confirmatory soil and/or groundwater sampling associated with this LUST listing), AECOM considers this LUST to be a REC. Additional information related to USTs at the property is discussed further in Section 5.5.1.

Multiple SLIC listings were provided indicating that the subject property is a cleanup program site (Lead Agency Case Number H21360-001). The SLIC reports indicate that a case was started on December 5, 2005, and completed and closed on March 15, 2007. The SLIC reports indicated that the potential media affected as part of this incident was soil, and the potential COC was gasoline. No other details are available in the EDR report or the embedded GeoTracker® link within the EDR report related to any activities conducted as part of these SLIC incidents; however, Qualcomm Stadium was also listed in the San Diego County SAM database (Case Number H21360-001) in the private VAP for this incident. According to correspondence reviewed in the City and County records, this case is associated with the tanker spill that occurred on the subject property in 2005. This incident is discussed further in Sections 4.3 and 5.5.1.

Several incidents related to spills and releases of hazardous materials at the stadium were listed in the CHMIRS and/or ERNS databases. The following is a summary of the incidents reported at the subject property:

- In November 1995, an incident was reported in the parking lot of Jack Murphy Stadium (OES Incident Number 010944). The incident report indicates 1,000 gallons of dissolved jet fuel (10,000 ppb) was released onto the parking lot as the result of water that overflowed during pumping. The database listing indicates that the MTDB environmental health department was present during cleanup activities, but no other details are provided. This incident is likely associated with the trolley line expansion project discussed in Section 4.4 and a hazardous materials incident report related to this incident is discussed further in Section 5.5.2.
- In February 2003, a spill of approximately 9 ounces of ammonia (CHMIRS OES No 03-1087) occurred from a leak in the refrigeration unit of a motor home. No information was provided as to the location of this incident, but it is presumed to have occurred in the parking area surrounding the stadium. The spill was cleaned up and the case was closed.
- In October 2007, an incident was reported for Qualcomm Stadium (OES Incident Number 07-6374), in which soil contaminated with an unknown oil or chemical was found adjacent to the property. The soil was believed to have been dumped illegally. The report indicates that soil removal was started; however, odors were overwhelming so digging ceased and a HAZMAT company was called in to complete the soil removal. This incident was documented in the City of San Diego Environmental Services Department records. Following the completed soil removal the case was closed.
- In February 2008 an incident occurred (OES Incident Number 08-1245) in which approximately 50 gallons of a hydrocarbon material was released from a containment area when equipment failed during drilling activities. The spill was contained and cleaned up using absorbents, and no waterways were reported as affected. The spill site is shown as “refinery” and occurred in a “parking lot,” though the specific location, either on-site or

off-site, is not specified. KMEP is the agency reporting the incident. No other information is listed with this incident.

- In February 2014, an incident (OES Incident number 14-0895) was reported at the subject property where approximately 40 gallons of a “fluorescein dye” was observed coming out of a storm drain mixed with water and flowing toward the San Diego River. The source could not be found, and it was reported that the dye would dry and no cleanup would occur. No other details are available.

With the exception of the incident associated with the 1995 jet fuel impacted groundwater and the upgradient KMEP property associated with the known contaminant plume beneath the subject property, the aforementioned incidents are relatively limited in nature, and all cases associated with these incidents required no cleanup or received closure. These incidents are considered HRECs with respect to the subject property. The incident associated with the jet fuel water impacts is further discussed in Sections 4.4 and 5.5.3. Incidents associated with the KMEP property are further discussed in Sections 4.3, 5.3.2, and 5.5.

An additional incident was reported for Qualcomm Stadium Parking Lot Northeast, associated with a tanker truck that overturned in the northeastern area of the stadium parking lot. This incident, which was reported in the SLIC and CHMIRS (OES Incident Number 13-2098) databases, was discussed in detail in Section 4.3.

An FTTS inspection (Inspection Number 1988022404947 2), dated February 24, 1988, was listed for the subject property. FTTS is associated with TSCA enforcement actions and compliance activities. The only information provided in the EDR report indicates a Section 6 PCB Federal investigation was conducted, and a violation occurred, though nothing further is discussed related to this violation. Based on this information, the age of the subject property (1967), and the unknown status of PCB-containing oils in the exterior transformers (discussed in Section 2.3.4), the potential for PCB-containing equipment to be present on-site is considered a REC.

Several active permit violations were identified in the EDR database report for the subject property for inspections conducted between approximately 2003 and 2012. Violations cited were primarily related to compliance issues, such as hazardous waste storage time exceedances; unlabeled, improperly labeled, or open waste storage containers; improper record keeping; inadequate employee training; issues with secondary containment; and general housekeeping issues. Most of the hazardous materials and hazardous wastes are stored in or around the maintenance building in the southwestern corner of the property, and within the maintenance rooms on the basement level of the stadium. Additional records related to hazardous waste compliance inspections dating back to the late 1980s were also reviewed at the City Department of Environmental Services, many of which cited similar issues. The majority of the violations cited is administrative in nature and would not be considered RECs associated with the subject property.

5.3.2 Surrounding Sites

Several surrounding facilities were identified within their respective ASTM and/or EDR search distances from the subject property. The KMEP MVT facility was listed in several databases and comprises approximately half of the total off-site, surrounding area listings in the EDR report. Many of the sites listed in the EDR report were also listed in the RWQCB online GeoTracker® database. A discussion of pertinent records related to sites surrounding the subject property is provided below.

- 9950 and 9966 Friars Road: Database records listed at this location are related to the upgradient KMEP MVT facility. Several names are provided for this facility, including Powerine Oil Company, ExxonMobil, Texaco, Shell Oil Products, Mission Valley Terminal, Santa Fe Pacific Pipeline, and Kinder Morgan. This facility was listed in numerous databases, including (but not limited to) Resource Conservation and Recovery Act (RCRA) Small Quantity Generator (SQG) and Large Quantity Generator (LQG), San Diego County HMMD and SAM databases, UST, HIST UST, SWEEPS UST, LUST, SLIC, CHMIRS, FINDS, HAZNET, and NPDES. Several listings discuss the enforcement action history (CAO, required SCM revisions, etc.) related to the CAO 92-01. In addition to the known soil and groundwater contaminant plume that has impacted the subsurface at the subject property, several surface spills, primarily related to equipment failures and/or overfills, have also occurred on this property. As the KMEP property is a bulk fuel terminal, numerous USTs and ASTs are listed for this property. Active remediation and monitoring occurs at this facility, and records related to this facility as it relates to impacts beneath the subject property have been discussed throughout this report. The KMEP facility represents a REC with respect to the subject property.
- 9300 and 9310 Friars Road: The facility at this location is known by several names, including the HG Fenton Material Company, Fenton Properties, Shewey Environmental, Mission Valley Plant, and Class 2 Soil Treatment Facility. This property was listed in several databases, including (but not limited to) San Diego County HMMD and SAM databases, UST, LUST, SWEEPS, UST, RCRA Enforcement (ENF), Land Disposal Facilities (LDS), and Waste Management Unit Database System (WMUDS/SWAT). Several USTs (approximately nine) were historically present at this location, and documented releases occurred during the 1990s when remediation and site redevelopment took place. This facility is listed as having a "closed" status in the databases reviewed since approximately the early 2000s. This property is shown on both the EDR database map as well as the RWQCB GeoTracker® database as being located across Friars Road, upgradient of the subject property; however, AECOM requested records for the facilities at 9300 and 9310 Friars Road from the San Diego County DEH. Based on figures provided in correspondence related to cleanup actions conducted at this facility, it appears that this property is actually located to the west and downgradient of the subject property in the vicinity of the current Fenton Marketplace shopping plaza, and not across Friars Road from the subject property. Based on the downgradient location of this facility with respect to the subject property and the closed regulatory status, historic releases at this location do not represent a REC with respect to the subject property.
- Costco Wholesale is located in the Fenton Marketplace shopping plaza, to the west of the subject property. Costco is listed in the RCRA LQG, RCRA non-generator/NLR, and FINDS databases. A dry cleaning facility is also located in this shopping plaza; however, the dry cleaning facility is in the west end of the shopping center. Based on area groundwater flow direction and the distance from the subject property (i.e., more than 500 feet), the Fenton Marketplace facility is not expected to present a REC to the subject property.

Based on the distance and direction (i.e., downgradient) and/or regulatory status of the other sites (i.e., closed, no further action) listed in the EDR report that are within the ASTM and EDR search distances from the subject property, no other facilities were identified that present a REC with respect to the subject property.

5.4 Vapor Encroachment Screening

AECOM conducted a Tier 1 VES as part of this assessment. This screening was conducted in general accordance with the ASTM E2600 *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions* dated June 2010. The objective of the VES was to evaluate the following:

1. If a VEC exists, or
2. Is likely to exist, or
3. Cannot be ruled out, or
4. Can be ruled out because it does not exist or is not likely to exist.

Known benzene, MTBE, and TBA plumes have impacted the subsurface at the subject property as discussed in Section 4.3. Further, soil vapor concentrations were detected in shallow soils (less than 5 feet bgs) above CHHSLs in the area of the 2005 tanker spill near the northeastern boundary of the subject property. Based on this information it is AECOM's opinion that a VEC cannot be ruled out and should therefore be considered a REC.

AECOM reviewed the site-specific environmental database report with particular focus on the following two types of sites:

1. Off-site properties that are impacted by chlorinated volatile organic compounds (VOCs) and/or semi-volatile organic compounds (SVOCs) and are located within approximately 1,750 feet of the subject property, and
2. Off-site properties that are impacted by petroleum hydrocarbons and are located within approximately 525 feet of the subject property.

The following paragraphs summarize the results of AECOM's VES of the subject property.

A review of the site-specific environmental database indicates that no chlorinated VOC/SVOC impacted sites are located within the above-described radii of the subject property. The following petroleum hydrocarbon impacted sites are located within the above-described radii of the subject property:

- The KMEP facility, located to the northeast of the subject property, is a known petroleum hydrocarbon impacted site. The KMEP property is a bulk fuel terminal with numerous USTs and ASTs. Remediation and monitoring activities have been conducted at this facility since the late 1980s. Benzene, MTBE, and TBA plumes are known to extend from this facility onto the subject property. Based on known impacts from this facility, it is AECOM's opinion that a VEC cannot be ruled out. Therefore, AECOM considers the groundwater plume originating from the KMEP facility to be a REC.
- A tanker truck carrying gasoline overturned near the southeast corner of Mission Village Drive and San Diego Mission Road. The overturned tanker truck resulted in a gasoline spill and fire in the northeastern quadrant of the subject property, to the east of the central entrance to the stadium. Soil vapor sampling conducted in the upper (approximate) 5 feet of soil in this area identified three areas where concentrations of BTEX compounds, specifically benzene and toluene, exceeded their respective industrial/commercial CHHSLs. Although the case associated with this incident was closed according to the San Diego County DEH, a VEC cannot be ruled out. Therefore, AECOM considers the presence of BTEX above CHHSLs in the area a REC.

- The facility located at 9300 and 9310 Friars Road was identified with documented releases from former USTs. The releases occurred during the 1990s when remediation and site redevelopment took place. This facility is listed as having a “closed” status in the databases reviewed since approximately the early 2000s. Documentation from the San Diego County DEH indicates this facility is located in the vicinity the Fenton Marketplace shopping plaza, which is west of the subject property, downgradient relative to the direction of groundwater flow. Based on the closed status of this facility and its location, it is AECOM’s opinion that the potential for this facility to create a VEC at the subject property can be ruled out.

5.5 Agency File Review

5.5.1 City of San Diego Offices

AECOM was provided available records on file with the City of San Diego Environmental Services Department for USTs, ASTs, historic releases, and hazardous materials management at the subject property. Copies of pertinent records reviewed are provided in Appendix C.

Based on a UST closure report reviewed in the City of San Diego Environmental Services Department files provided by Mr. Fergusson, a 700-gallon, steel, single-walled gasoline UST was removed from the subject property in February 1991. AECOM presumes that this UST is in reference to the 550-gallon, leaded gasoline UST installed in 1968 and removed in 1991 identified in the EDR database report. Based on photographs taken during UST removal activities, it appears this UST was located in the southwestern corner of the subject property, near the pesticide storage building. The closure report indicates that holes were found underneath the tank, and that slight staining and odors were detected during the removal. Laboratory analysis of two soil samples collected during UST removal activities indicated that TPH was not detected. No further action was recommended for this UST in the 1991 closure report, and the case was closed with signatory concurrence received from the City of San Diego. Although this UST was removed and the case was closed, it does not appear that soil samples were collected below any associated fuel dispensers or underground piping, or if underground piping associated with the UST was removed and properly disposed. On this basis, this former UST presents a REC with respect to the subject property.

Three 1,000-gallon, double-walled USTs (two diesel and one gasoline) installed in April 1991, remained in operation until these tanks were removed in January 2004. The USTs were located in the southwestern corner of the subject property, to the south of the concrete pad south of the maintenance building. In January 2004, the three USTs and associated dispensers and piping were excavated and removed from the ground at the subject property. At that time, a 1,500-gallon, divided compartment AST containing 50 gallons of gasoline and 1,000 gallons of diesel fuel was installed at the subject property as a replacement for the former USTs. During the UST excavation, three soil samples (one below the bottom of each UST) were collected, as directed by the San Diego DEH. Laboratory analysis of the soil samples indicated that TPH and BTEX were not detected in soils in the location of the former USTs. MTBE was detected at a concentration of 19 mg/kg in soil. The presence of MTBE in this area was attributed to the upgradient KMEP MTBE plume. According to a UST system closure report, the tanks and “native materials” were observed to be in “excellent” condition, and no further action was recommended. The DEH concurred with this recommendation and the case was closed. Tightness testing was performed on these USTs throughout the duration of their presence on the property. Based on the known tightness testing results, soil sampling data collected at the time of the USTs removal, and DEH concurrence that no further action was needed, the presence of the former USTs does not present a REC in connection with the subject property.

As discussed in the ASTM questionnaire completed by Mr. Fergusson, in June 2002 during a regulatory inspection of the facility, the DEH inspector noted that a slow dripping leak to the paved surface beneath the dispensers was occurring on one of the diesel dispensers at the subject property, near the maintenance building. An unauthorized release report was filed and the dispenser was fixed. No other information related to this incident was available; however, based on soil data collected when the USTs and dispenser island were removed in 2004 (discussed above), no evidence of a significant release was detected in this area. Therefore, this incident does not present a REC in connection with the subject property.

According to correspondence reviewed in the City of San Diego Environmental Services Department records, on December 7, 2005, a tanker truck carrying gasoline rolled over on San Diego Mission Road, near the northeastern entrance of the Qualcomm Stadium parking lot. Details related to this incident were discussed further in Section 4.3

An application for the County of San Diego DEH VAP was submitted on April 19, 2013, for the overturned ethanol tanker incident that occurred in April 2013. DEH Case Number DEH2013-LSAM-000173 was issued for the incident. A copy of the VAP application is provided in Appendix C. Details related to this incident were discussed further in Section 4.3.

In addition to the aforementioned agencies searched, AECOM submitted a Freedom of Information Act (FOIA) request to the City of San Diego Fire Department for records pertaining to USTs, ASTs, or incidents involving hazardous materials releases reported at the subject property. A response was received on July 10, 2015. No additional information (other than that described earlier in this report) was provided by the City of San Diego Fire Department.

5.5.2 San Diego County Department of Environmental Health

AECOM submitted FOIA requests to the San Diego County DEH SAM Program and HMMMD for records pertaining to hazardous materials, hazardous waste, contaminated property investigations, USTs, or ASTs at the subject property, and select surrounding sites on June 29, July 1, and July 8, 2015. A compact disc containing several files related to the subject property and surrounding properties was obtained from the DEH on July 9, 2015. Most of the files pertaining to the subject property were related to compliance inspections or other incidents that have been discussed in other sections of this report.

A hazardous material incident response report dated November 16, 1994, was reviewed. The incident report was related to a release of 1,000 gallons of a fuel and water mixture in the southeastern corner of the Jack Murphy Stadium (Qualcomm) parking lot. Mr. Doug Roff of Barrett Consulting was listed as the contact for the incident, and the report states that he was a consultant to Metropolitan Transit District stadium Trolley expansion project at the time. The report states that Mr. Roff indicated that the fuel/water mixture was produced during dewatering activities for the trolley tower footings, and that none of the material released reached the San Diego River. Later in the report, the date provided is November 17, 1995. This incident appears to be associated with the 1995 spill report provided in the EDR report, discussed in Section 5.3.1. Mr. Roff is currently employed with AECOM, and information obtained during an interview conducted with Mr. Roff was discussed further in Section 4.4. A copy of the spill report is provided in Appendix C.

No other information indicating release or potential release incidents at the subject property was included in the San Diego County DEH files reviewed by AECOM.

5.5.3 State Water Resources Control Board

AECOM conducted a records search of the subject property on the California Environmental Protection Agency's State Water Resources Control Board (SWRCB) online GeoTracker® database. The GeoTracker® database records contaminated property investigations consisting of Leaking Underground Fuel Tank (LUFT), SLIC, Land Disposal, DoD (non-UST), wells, and UST sites throughout California. Both the ethanol spill from 2013 and the tanker spill from 2005 are listed for the subject property in GeoTracker®. Details pertaining to this incident have been discussed in other sections of this report. Both of these incidents are listed as case closed in the GeoTracker® database. The subject property is also listed as a permitted UST facility; however, no additional information is listed in GeoTracker® for USTs formerly located at the subject property, or that USTs are currently located on the subject property. Several previous boring locations and monitoring wells completed as part of the upgradient KMEP project are also shown on the subject property.

Several facilities were listed in GeoTracker® surrounding the subject property. Among those listed are the KMEP MVT and Texaco Terminal sites at 9950 and 9966 San Diego Mission Road, the HG Fenton Material Company facility and Shewey Environmental Facility located at 9300 and 9310 Friars Road, and a Thermal Treatment Facility located at 2365 Northside Drive. The only downloadable documents related to any of these facilities available on GeoTracker® were related to the MVT site. GeoTracker® lists the incidents at all other facilities, including the Texaco Terminal, as completed and closed. No other relevant information that has not already been discussed throughout this report was found in the SWRCB GeoTracker® database.

The original CAO 92-01, issued by the RWQCB on January 3, 1992, for the Mission Valley Terminal located at 9950 San Diego Mission Road, was reviewed in the GeoTracker® database. At the time the order was issued, the property was owned and operated by Santa Fe Pacific Pipeline Partners, LP (SFPP), an operating partnership of KMEP. The ASTs, which contained both leaded and unleaded gasoline as well as diesel, were leased by Shell Oil Company, Mobil Oil Corporation, and Powerine Oil Company. The CAO indicated that SFPP had commenced operations at MVT in 1963, and that the approximate aboveground petroleum capacity at the terminal was 18,690,000 gallons. The tanks were reported to be between approximately 18 to 30 years old at the time the CAO was issued.

In 1991, the RWQCB received reports that between approximately 0.5 to more than 1 foot of LNAPL, or free phase product, was reported in various monitoring wells throughout the MVT property during monitoring events conducted between 1988 and 1991. SFPP, Shell Oil, Mobil Oil, and Powerine Oil Company were named as the dischargers that were the subject of the original CAO. These entities were ordered to complete a comprehensive site assessment for the MVT property no later than July 1, 1992, to immobilize and recover all free product from the affected groundwater, to immobilize dissolved product in the soil to prevent off-site migration, and to complete a Corrective Action Plan (CAP) by September 1, 1992. In addition to these directives, quarterly progress reports were also required as part of the CAO, and completion of final cleanup levels was ordered to be achieved by January 1, 1996.

Addendums 1 through 4 of CAO-92-01 were issued between May 1994 and February 2002, and were primarily administrative in nature, including granting an extension of cleanup goals, changes in ownership/liability of the MVT release, and the discovery of (likely) co-mingled releases associated with the (then) Texaco-owned and operated facility located at 9966 San Diego Mission Road. Copies of CAO 92-01 and Addendums 1 through 4 are provided in Appendix C.

Based on various investigations conducted by the responsible parties, it was determined that the extent of the petroleum hydrocarbon fuel waste from the MVT site extended approximately 4,900 feet beyond the MVT property to the southwest, beneath the subject property. Therefore, Addendum No. 5 to CAO 92-01 was issued by the RWQCB, which stipulated a new milestone cleanup date of December 2013, which would require more aggressive remediation methods. The addendum also stated that a quarterly monitoring program, revised CAP, and further soil and groundwater investigations were needed to adequately assess the cleanup and path forward. It was also indicated that the City of San Diego planned to develop the groundwater resources located downgradient of the MVT plume for use as a municipal drinking water supply by the year 2010.

Addendum No. 5 referenced a November 1, 2004, "Summary of Understanding" between KMEP and the City of San Diego, in which KMEP agreed to develop a plan to revise the MVT SCM, investigate and test more aggressive cleanup technologies, and investigate the utilities under public right-of-ways in the area, which may have been impacted by the release that occurred at the MVT. Thus, among other investigation and reporting requirements, Addendum No. 5 ordered KMEP to remove LNAPL from the subsurface and groundwater to the extent technically practicable by December 31, 2010, and set a goal of achieving "background water quality conditions" in the off-site area by December 31, 2013. A copy of Addendum No. 5 is provided in Appendix C.

The Executive Officers Report, prepared by the RWQCB in February 2012, provides a succinct summary of remedial activities performed to address the off-terminal impacts caused by KMEP up until that point. Several issues not related to the KMEP property are also discussed in this report. Relevant pages from this report are provided in Appendix B.

Between April and June 2010, KMEP conducted confirmatory soil sampling and a soil vapor rebound study to confirm that LNAPL had been removed from the primary off-terminal LNAPL zone to the extent technically practicable. The RWQCB identified four areas that did not meet the December 2010 cleanup deadline. Further, a new area of LNAPL-impacted soil was discovered in July 2009 in the northwestern, off-terminal LNAPL area that also did not comply with this deadline. Based on information provided in the March 2014 Remedial Compliance Evaluation discussed in Section 4.3, the RWQCB concurred that remediation had been achieved in the primary off-terminal LNAPL area by the end of 2010, but not in the northwest off-terminal area LNAPL zone, where remediation was ongoing at the time (circa 2010).

Soil excavation was conducted between August and October 2010 in four areas of the primary off-terminal LNAPL zone in order to facilitate compliance with the December 2010 cleanup deadline. During this time, 4-foot- and 6-foot-diameter augers were advanced below the bottom of the LNAPL-affected soil, and each borehole was backfilled with a Portland cement slurry. Approximately 6,000-cubic yards of soil was excavated as part of these efforts.

Between August and December 2010, the off-terminal SVE system was expanded into the northwestern off-terminal LNAPL zone. This effort included installation of 51 additional SVE wells and a second SVE system to remediate the LNAPL-affected soil. The locations of the SVE wells on the subject property are shown in the figures provided in Appendix B-4.

A second rebound study was conducted between February and April 2011, at which time all SVE systems were shut down for 61 days. Soil vapor monitoring conducted during the rebound period and subsequent restart was used to evaluate whether significant concentrations of petroleum hydrocarbons remained in the soil. The results indicated that the LNAPL-affected soil had reached a

point where continued remedial efforts provided little incremental benefit, and it was determined that LNAPL had been removed to the extent technically practicable.

KMEP reported that remediation of the primary LNAPL area had met the December 2010 cleanup criteria stipulated in the CAO; however, the northwestern off-terminal LNAPL area did not meet this deadline. Therefore, active remediation of this LNAPL area commenced in late 2010, and this remediation effort was ongoing at the time of the Executive Officers Report. LNAPL remediation efforts have since ceased (circa late 2013/early 2014). Included in this report was correspondence related to KMEP's requests to increase the daily average discharge rate associated with NPDES Permit No. CAG919002. Arcadis, on behalf of KMEP, concluded that the increased groundwater discharge rate would allow for additional groundwater extraction that would accelerate the cleanup of groundwater in order to meet the December 2013 cleanup objectives, and groundwater modeling was conducted to support this increase. As discussed in Section 4.3, the groundwater remediation goals had not been met, specifically for TBA, which is currently the primary remaining COC associated with the groundwater contaminant plume.

5.5.4 California Department of Toxic Substances Control

AECOM searched the California DTSC online EnviroStor database for California Cleanup Sites involving the DTSC. The EnviroStor database consists of federal National Priorities List (NPL) sites, state response sites, voluntary cleanup sites, and school cleanup sites. The subject property was not identified on the California DTSC online EnviroStor database.

Based on the presence of the northeasterly adjacent MVT property on contamination-related databases, AECOM searched the EnviroStor database for information regarding the MVT facility. A "tiered permit" shown as "inactive, needs evaluation" is listed for the MVT property at 9950 San Diego Mission Road. No other information is provided. This is the only nearby facility listed in the EnviroStor database.

5.5.5 United States Environmental Protection Agency (U.S. EPA)

AECOM searched the U.S. EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) information website. The CERCLIS database consists of sites being assessed under the Superfund program (NPL sites), hazardous waste sites, and potential hazardous waste sites. The subject property or any surrounding properties were not listed in this database.

AECOM searched the U.S. EPA's Enforcement & Compliance History Online (ECHO) database, which consists of U.S. EPA compliance history at a site. The subject property was not listed in this database. Several listings are provided for the facility located at 9950 San Diego Mission Road. These include the Exxon/Mobil Oil Corporation Mission Valley Terminal Facility Registry Service (Facility Information System [FRS] ID 110000478769, EPA Registry ID number 110000478769, and Toxic Release Inventory System [TRIS] ID 92108MBLLM99505), Kinder Morgan Mission Valley Terminal (Integrated Compliance Information System [ICIS] ID 6357233 and Oil Database ID R9-CA-00131), and Mobil Oil (RCRA Information System CAT000623694 and Emission Inventory System [EIS] ID 4842011). The Equilon Terminal is also shown to the northeast of the subject property, at 9966 San Diego Mission Road (FRS ID 110000478778 and TRIS ID 92108QLNSN9966S). Shell Oil Products San Diego Terminal (RCRA Information System CAD000626127) is also listed at this location. Extensive compliance information was available for the facilities located at both of these locations; however, no additional information relevant to the scope of this Phase I ESA was identified that has

not been discussed elsewhere in this report, and nothing specific to the subject property was identified.

Lastly, AECOM conducted a search of the U.S. EPA's Envirofacts Data Warehouse (Envirofacts) online databases. The Envirofacts database retrieves information obtained from 17 national systems, including the CERCLIS, Superfund program (NPL sites), hazardous waste sites, and potential hazardous waste sites. The subject property was not listed in any of these databases. Several compliance and inspection records were listed for the adjacent properties located at 9950 and 9966 San Diego Mission Road. At the 9950 San Diego Mission Road location, Exxon Mobil Corp MVT, Equilon Enterprises, LLC MVT, Powerine Oil Co., and Shell Oil Products MVT were all listed at this address, and the Equilon San Diego Terminal was also listed at 9966 San Diego Mission Road. Compliance and inspection information as it relates to Biennial Reporting, Air Facility Systems, RCRA generator info, and Toxic Release Inventory was available for the facilities located at both of these locations; however, no additional information relevant to the scope of this Phase I ESA was identified that has not been discussed elsewhere in this report, and nothing specific to the subject property was identified.

5.5.6 Other Agencies

AECOM also submitted a request to the Office of Environmental Health Hazard Assessment (OEHHA) on June 29, 2015, and no records related to the subject property were found, based on a response received from the OEHHA on July 6, 2015.

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6.0 Findings and Opinions

AECOM performed a Phase I ESA of the subject property in general conformance with the scope and limitations of ASTM Practice E 1527-13, which meets the requirements of Title 40, Code of Federal Regulations Part 312 and is intended to constitute *all appropriate inquiry* for purposes of the landowner liability protections. Any exceptions to, or deletions from, this practice are described in Sections 1.3 through 1.5 of this report.

The following sections summarize the findings and opinions of this Phase I ESA of the subject property.

6.1 Recognized Environmental Conditions

Based on the above-described activities, the following RECs were identified in connection with the subject property:

- A documented fuel release occurred at the KMEP property located at 9966 and 9950 San Diego Mission Road, immediately upgradient of the subject property. Fuel migrated from the KMEP property and impacted soil and groundwater beneath the subject property. Several phases of investigation and remediation have been completed as part of the release, and remediation and monitoring of the on-site contaminant plume is ongoing. Cleanup goals associated with the contaminant plume have not yet been achieved. As such, the KMEP facility represents a REC with respect to the subject property.
- A VES of the KMEP facility and the area of the 2005 gasoline tanker spill that occurred near the northeastern stadium parking area indicate that there is a VEC on the subject property. The VEC is associated with the groundwater plume originating from the KMEP property and benzene and toluene concentrations in soil gas reported above Industrial/Commercial CHHSLs in samples collected from the vicinity of the 2005 gasoline tanker spill. The presence of a VEC presents a REC with respect to the subject property.
- A 550-gallon leaded gasoline UST was present on the subject property between approximately 1968 and 1991. Photographs from UST removal activities indicate this UST was located near the pesticide storage building, in the southwestern corner of the subject property. Although this UST was removed and the case was closed, it does not appear that soil samples were collected below any associated fuel dispensers or underground piping, or if underground piping associated with the UST was removed and properly disposed. On this basis, this former UST presents a REC with respect to the subject property.
- Jet fuel-impacted soil and groundwater were reportedly encountered in the southeastern area of the subject property during the installation of the foundation for the MTS Trolley line transformer building in this area. In 1995, a spill report indicating approximately 1,000 gallons of dissolved jet fuel mixed with water was encountered during dewatering activities associated with construction activities. Impacted water and contaminated soil encountered during construction activities were reportedly containerized and shipped off-site, and no further remediation or investigation is known to have occurred in this area once construction was completed. The presence of jet fuel impacted soil and/or groundwater is not known to have been fully characterized in this area, and is likely associated with an off-site fuel line that

parallels the eastern boundary of the subject property. A 10-inch fuel pipeline was identified adjacent to the eastern property boundary, in the vicinity of Mission Center Road. The extent of jet fuel impacts in this area are not fully known, based on the available information. Therefore, this is considered a REC.

- The subject property is listed in the RGA LUST database for the years 2006 and 2007; however, no further information is provided. Based on the lack of information regarding this listing (i.e. location of the former LUST, confirmatory soil and/or groundwater sampling associated with this LUST listing), AECOM considers this LUST to be a REC.

The subject property was identified in a FTTS database listing. According to the listing in 1988 a "Section 6 PCB Federal investigation" associated with TSCA enforcement actions and compliance activities was conducted for the subject property. A violation was noted; however, no further information was provided by the database. According to facility personnel, and based on observations made during the facility inspection, there are oil-containing transformers in four exterior areas around the subject property parking area. Facility personnel were unaware if upgrades to the transformers had historically been conducted. Based on the age of the subject property, the potential for PCB-containing dielectric fluids exists. On this basis, the potential for PCB-containing equipment to be present on-site is considered a REC.

6.2 Controlled Recognized Environmental Conditions

Based on the above-described activities, the following CREC was identified:

- On April 17, 2013, a tanker truck overturned at the intersection of Mission Village Drive and San Diego Mission Road, adjacent to the northeastern boundary of the subject property. The incident resulted in approximately 2,500 gallons of ethanol pooled into two areas in the subject property northeast parking area, and approximately 3,500 gallons of ethanol that was not recovered as a result of this spill. Following cleanup and sampling activities related to this spill, it was concluded that the sorbed-phase ethanol impacts in soil were limited, and that the impacts had degraded rapidly, and no further action for investigation or remediation was recommended at the conclusion of the subsurface assessment. A letter concurring with this recommendation was issued by the San Diego County DEH in February 2014; however, the DEH letter also stated that changes to land use on the subject property (currently commercial) may require reassessment of this incident. Based on this DEH determination, this closed spill incident is considered a CREC.

6.3 Historical Recognized Environmental Conditions

Based on the above-described activities, the following HRECs were identified in connection with the subject property:

The following HRECs were identified:

- On December 7, 2005, a tanker truck containing gasoline overturned at the southeast corner of Mission Village Drive and San Diego Mission Road. The overturned tanker truck resulted in a gasoline spill and fire in the northeastern quadrant of the subject property. The spill incident was issued a closed status in March 2007. Based on soil and groundwater data provided in a previous report in conjunction with the closed status, this closed spill incident is considered an HREC.

- Numerous spill incidents (in addition to the 1995 release of dissolved jet fuel, discussed above) at the subject property were identified in the database report, and are described as follows. In 2003, a spill of approximately 9 ounces of ammonia occurred from a leak in the refrigeration unit of a motor home in the parking area surrounding the stadium; in 2007, soil contaminated with an unknown oil or chemical was found adjacent to the property. The soil was believed to have been dumped illegally. In 2008, approximately 50 gallons of a hydrocarbon material was released from a containment area when equipment failed during drilling activities and, in 2014, approximately 40 gallons of a “fluorescein dye” mixed with water was observed flowing out of a storm drain toward the San Diego River. The exact locations where these incidents occurred on the subject property are unknown. Regardless, these incidents have all received a closed status. Based on the closed status, these former on-site incidents are considered HRECs.

6.4 De Minimis Conditions

Based on the above-described activities, the following DMCs were identified during this assessment:

- AECOM observed an approximate 4-square-foot area of oily staining on the concrete-paved and unpaved area adjacent to the hazardous waste storage area. Given the localized nature of the staining observed, AECOM considers this a DMC.
- Historical research indicates that the subject property was utilized as agricultural land and a dairy farm from approximately the early 1900s through the mid-1960s, and portions of the southwestern property were used as a sod farm from approximately the late 1970s to present day. It has been AECOM's experience that residual concentrations of OCPs may be present in shallow soil of the subject property, as is common throughout many agricultural regions of the United States. Based on the current commercial use of the subject property, the potential presence of residual concentrations of OCPs in the shallow on-site soils is considered a DMC, since (in AECOM's opinion), the OCPs have a low potential to exceed regulatory action levels for commercial properties. Additionally, grading or earthmoving activities often accompany property redevelopment, which occurred when the dairy farm was converted to land uses now present in the southwest corner of the subject property. Since these activities mix and blend the soils, it is AECOM's opinion that concentrations of OCPs attributable to the dairy activities have been significantly reduced.

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7.0 Conclusions

AECOM has performed a Phase I ESA of the Qualcomm Stadium property located at 9449 Friars Road, in San Diego, California, in conformance with the scope and limitations of ASTM Practice E 1527-13. Any exception to, or deletions from, this practice are described in Sections 1.3 through 1.5 of this report. The following RECs were identified in connection with the subject property:

- A documented fuel release occurred at the KMEP property located at 9966 and 9950 San Diego Mission Road, immediately upgradient of the subject property. Fuel migrated from the KMEP property and impacted soil and groundwater beneath the subject property. Several phases of investigation and remediation have been completed as part of the release, and remediation and monitoring of the on-site contaminant plume is ongoing. Cleanup goals associated with the contaminant plume have not yet been achieved. As such, the KMEP facility represents a REC with respect to the subject property.
- A VES of the KMEP facility and the area of the 2005 gasoline tanker spill that occurred near the northeastern stadium parking area indicate that there is a VEC on the subject property. The VEC is associated with the groundwater plume originating from the KMEP property and benzene and toluene concentrations in soil gas reported above Industrial/Commercial CHHSLs in samples collected from the vicinity of the 2005 gasoline tanker spill. The presence of a VEC presents a REC with respect to the subject property.
- A 550-gallon leaded gasoline UST was present on the subject property between approximately 1968 and 1991. Photographs from UST removal activities indicate this UST was located near the pesticide storage building, in the southwestern corner of the subject property. Although this UST was removed and the case was closed, it does not appear that soil samples were collected below any associated fuel dispensers or underground piping, or if underground piping associated with the UST was removed and properly disposed. On this basis, this former UST presents a REC with respect to the subject property.
- Jet fuel-impacted soil and groundwater were reportedly encountered in the southeastern area of the subject property during the installation of the foundation for the MTS Trolley line transformer building in this area. In 1995, a spill report indicating approximately 1,000 gallons of dissolved jet fuel mixed with water was encountered during dewatering activities associated with construction activities. Impacted water and contaminated soil encountered during construction activities were reportedly containerized and shipped off-site, and no further remediation or investigation is known to have occurred in this area once construction was completed. The presence of jet fuel impacted soil and/or groundwater is not known to have been fully characterized in this area, and is likely associated with an off-site fuel line that parallels the eastern boundary of the subject property. A 10-inch pipeline was identified adjacent to the eastern property boundary, in the vicinity of Mission Center Road. The extent of jet fuel impacts in this area are not fully known, based on the available information. Therefore, this is considered a REC.
- The subject property is listed in the RGA LUST database for the years 2006 and 2007; however, no further information is provided. Based on the lack of information regarding this listing (i.e., location of the former LUST, confirmatory soil and/or groundwater sampling associated with this LUST listing), AECOM considers this LUST to be a REC.

- The subject property was identified in a FTTS database listing. According to the listing in 1988 a “Section 6 PCB Federal investigation” associated with TSCA enforcement actions and compliance activities was conducted for the subject property. A violation was noted; however, no further information was provided by the database. According to facility personnel, and based on observations made during the facility inspection, there are oil-containing transformers in four exterior areas around the subject property parking area. Facility personnel were unaware if upgrades to the transformers had historically been conducted. Based on the age of the subject property, the potential for PCB-containing dielectric fluids exists. On this basis, the potential for PCB-containing equipment to be present on-site is considered a REC.

8.0 Quality Control/Quality Assurance

8.1 Site Visit, Research, and Report Preparation

The site visit, research, and report preparation were conducted by Ms. Sarah Perhala, in AECOM's San Diego, California office.

Signature: _____



The site visit, research, and report preparation were conducted by Ms. Sarah Vogel, in AECOM's Camarillo, California office.

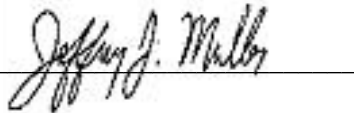
Signature: _____



8.2 Quality Control Review

A first level review of this report was conducted by Mr. Jeff Muller, in AECOM's Ontario, California office.

Signature: _____



A second level review of this report was conducted by Ms. Michele Floren, in AECOM's Long Beach, California office.

Signature: _____



8.3 Environmental Professional Statement

Ms. Michele Floren was the Environmental Professional (EP) for this project. Ms. Floren's EP statement is below and her resume is provided in Appendix D:

I declare that, to the best of our professional knowledge and belief, I meet the definition of an EP as defined in §312.10 of 40 Code of Federal Regulations (CFR) and that I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Signature: _____



Date: July 16, 2015

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9.0 References

9.1 Persons Interviewed

Cerin, Andy, City of San Diego Environmental Services Department, 9601 Ridgehaven Court, Suite 310, San Diego, California 92123, (858) 492-5003, ACerin@sandiego.gov. Present during the July 7, 2015, site inspection and provided site history information.

Gibbs, William, City of San Diego Stadium Turf Manager, 9449 Friars Road, San Diego, California 92108, (619) 641-3103, WGibbs@sandiego.gov. Present during portion of the July 7, 2015, site inspection and provided site history information.

Fergusson, Craig, City of San Diego TEEM Program Manager, Environmental Services Department, 9601 Ridgehaven Court, Suite 310, San Diego, California 92123, (858) 627-3311, CFergusson@sandiego.gov. Mr. Fergusson assisted in completing the ASTM 1527-13 user questionnaire, provided history and records related to USTs and ASTs at the subject property, and accompanied Ms. Perhala and Ms. Vogel for a portion of the site walk on July 7, 2015.

Hawkins, Leon, City of San Diego Building Supervisor, 9449 Friars Road, San Diego, California 92108, (619) 641-3121, LHawkins@sandiego.gov. Present during portion of the July 7, 2015, site inspection and provided site history information.

Newman, Joy, City of San Diego Hazardous Materials Program Supervisor, 9601 Ridgehaven Court, Suite 310, San Diego, California 92123, (858) 492-5089, JNewman@sandiego.gov. Ms. Newman assisted completing the ASTM 1527-13 user questionnaire, provided site history and records related to hazardous materials management and spill records at the subject property, and accompanied Ms. Perhala and Ms. Vogel for a most of the site walk on July 7, 2015.

Ritz, Thomas, City of San Diego Building Maintenance Supervisor at Qualcomm Stadium, 9449 Friars Road, San Diego, California, (619) 641-3106, TRitz@sandiego.gov. Present during the July 7, 2015, site inspection and provided site history information.

Roff, Douglas, Senior Hydrogeologist at AECOM, 401 West A Street, Suite 1200, San Diego, California, 92101, (619) 610-7756, douglas.roff@aecom. Mr. Roff provided historical information related to the MTS Trolley installation project.

9.2 Agencies Contacted/Reviewed

California Environmental Protection Agency at <http://www.calepa.ca.gov/>

City of San Diego Clerk's Office at cityclerk@sandiego.gov

City of San Diego Fire Department at <http://www.sandiego.gov/fire/services/recordsearches.shtml>

County of San Diego Department of Environmental Health at deh.publicrecords@sdcounty.ca.gov

Comprehensive Environmental Response, Compensation, and Liability Information System website at <http://www.epa.gov/superfund/sites/cursites/>

Department of Toxic Substance Control Envirostor website at <http://www.envirostor.dtsc.ca.gov>

Enforcement & Compliance History Online website at <http://echo.epa.gov/?redirect=echo>

Envirofacts Data Warehouse website at <http://www.epa.gov/enviro/>

Office of Environmental Health Hazard Assessment at monet.vela@oehha.ca.gov

San Diego County Department of Environmental Health at deh.publicrecords@sdcounty.ca.gov

Regional Water Quality Control Board, GeoTracker® website at <http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=qualcomm+stadium>

9.3 Documents Reviewed

Addendum No. 1 through 5, Cleanup and Abatement Order No. 92-01, Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego County, California. Prepared by the California Regional Water Quality Control Board – San Diego Region and issued to Santa Fe Pacific Pipeline Partners, LP, et al. May 9, 1994, August 27, 1999, February 19, 2002, March 20, 2002, and April 13, 2005.

California Regional Water Quality Control Board – San Diego Region Executive Officers Report, February 8, 2012. Available at http://www.swrcb.ca.gov/rwqcb9/publications_forms/publications/docs/executive_officer_reports/2012/EOR_02-08-12.pdf.

Cleanup and Abatement Order No. 92-01, Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego County, California. Prepared by the California Regional Water Quality Control Board – San Diego Region and issued to Santa Fe Pacific Pipeline Partners, LP, Shell Oil Company, Mobil Oil Corporation, and Powerine Oil Company. January 3, 1992.

EDR Aerial Photos Decade Package prepared for Qualcomm Stadium, 9449 Friars Road, San Diego, California 92108, dated June 26, 2015. Inquiry number 4337976.12. Aerial photographs dated 1949, 1953, 1964, 1970, 1979, 1985, 1989, 1994, 2005, 2009, 2010, and 2012. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR Building Permit Report prepared for Qualcomm Stadium, 9449 Friars Road, San Diego, California 92108, dated June 26, 2015. Inquiry number 4337976.8. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR City Directory Abstract prepared for Qualcomm Stadium, 9449 Friars Road, San Diego, California 92108, dated June 26, 2015. Inquiry number 4337976.5. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR Environmental Lien and AUL Search prepared for Qualcomm Stadium, 9449 Friars Road, San Diego, California 92108, dated June 29, 2015. Inquiry number 4337976.7. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR Historical Topographic Maps, prepared for Qualcomm Stadium, 9449 Friars Road, San Diego, California 92108, dated June 26, 2015. Inquiry number 4337976.4. Topographic Maps dated 1903, 1904, 1942, 1947, 1953, 1967, 1975, 1994, and 1996. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR Property Tax Map Report prepared for Qualcomm Stadium, 9449 Friars Road, San Diego, California 92108, dated June 26, 2015. Inquiry number 4337976.6. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR Radius Map with GeoCheck®, prepared for Qualcomm Stadium, 9449 Friars Road, San Diego, California 92108, dated June 26, 2015. Inquiry number 4337976.2. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

EDR Sanborn Map Report, prepared Qualcomm Stadium, 9449 Friars Road, San Diego, California 92108, dated June 26, 2015. Inquiry number 4337976.3. Report prepared by Environmental Data Resources Inc., 6 Armstrong Road, Shelton, Connecticut 06484, (800) 352-0050, www.edrnet.com.

Google Earth website, www.google.earth.com. This information was reviewed online by Ms. Perhala with AECOM on June 30, 2015.

Off-Terminal Groundwater Monitoring Report, Third Quarter of 2014, Mission Valley Terminal, San Diego, California. Prepared by Arcadis US, Inc. on behalf of Santa Fe Pacific Pipeline, LP, an operating partnership of Kinder Morgan Energy Partners for the California Regional Water Quality Control Board – San Diego Region. October 30, 2014.

Phase II Environmental Site Assessment Report, Soil Gas Survey and Soil Sampling, Qualcomm Stadium, San Diego, California. Prepared by Converse Consultants for Van Dyk Tank Lines. May 4, 2006.

Post Remediation Groundwater Quality, Mission Valley Aquifer, Revision 1, San Diego, California. Prepared by Geofirma Engineering Ltd and Intera Inc. for the Office of the City Attorney and the Public Utilities Department – City of San Diego. March 17, 2015.

Remedial Compliance Evaluation – Northwest Off-Terminal LNAPL Zone, Mission Valley Terminal, San Diego, California. Prepared by Arcadis US, Inc. on behalf of SFPP, LP, an operating partnership of KMEP for the California Regional Water Quality Control Board – San Diego Region. March 28, 2014.

Site Conceptual Model and Off-Terminal Corrective Action Plan, Mission Valley Terminal, San Diego, California. Prepared by LFR Levine-Fricke for Santa Fe Pacific Pipeline, LP, an operating partnership of Kinder Morgan Energy Partners. September 8, 2005.

Soils Investigation, Geology and Hydrology, Phase I, Proposed All-American Stadium, Southwest of Friars Road and Murphy Canyon Road, San Diego, California. Prepared by Benton Engineering, Inc. August 4, 1965.

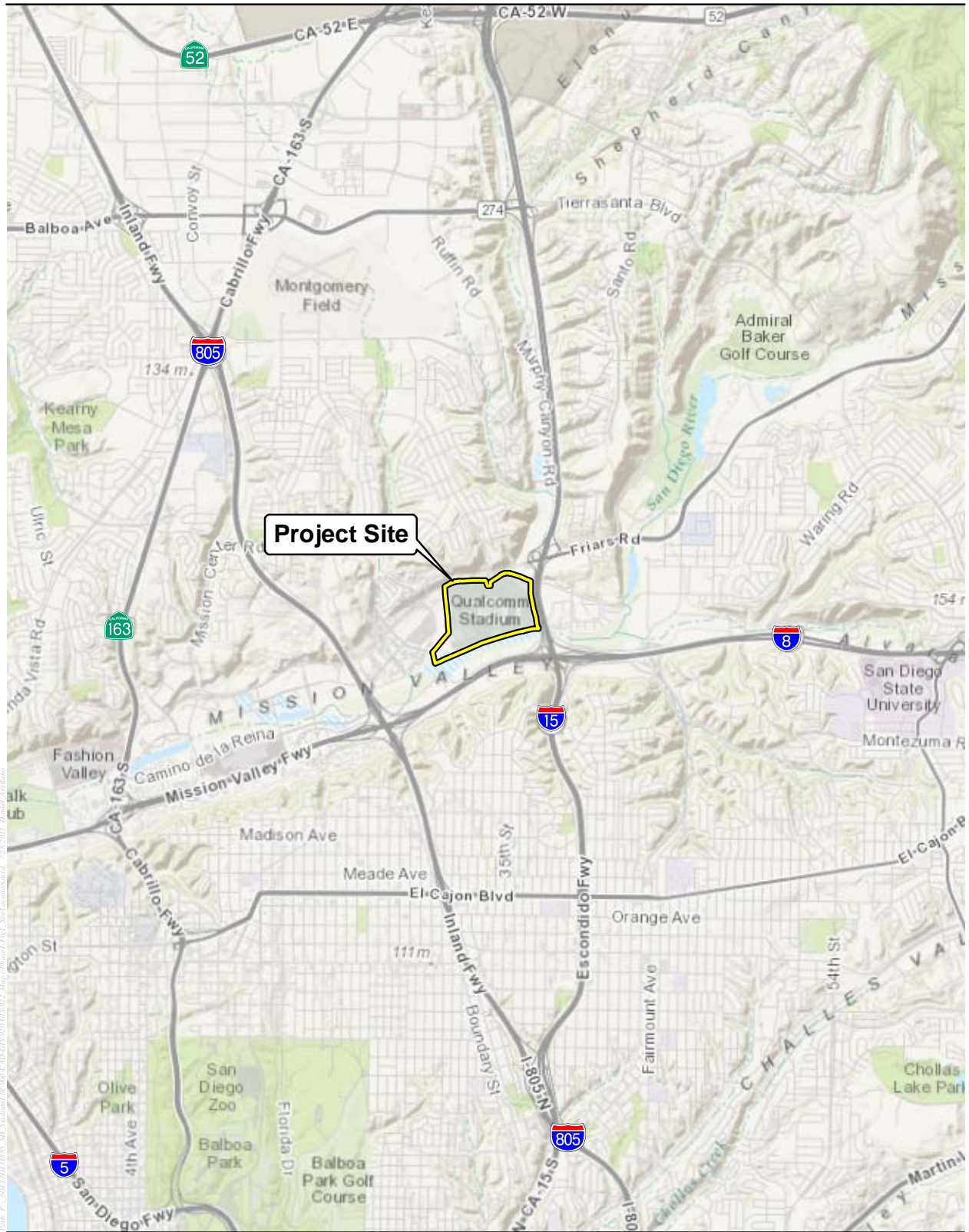
Soils Investigation, Phase II, Proposed All-American Stadium, Southwest of Friars Road and Murphy Canyon Road, San Diego, California. Prepared by Benton Engineering, Inc. October 15, 1965.

Spill Report for Apex Tank Lines, Inc. Ethanol Spill Response, Qualcomm Stadium, San Diego Mission Road and Mission Village Drive, San Diego, California. Prepared by NRC Environmental for Apex Tank Lines, Inc. April 7, 2013.

Subsurface Assessment Report, Qualcomm Stadium Parking Lot, 9449 Friars Road, San Diego, California. Prepared by SCS Engineers for the County of San Diego Department of Environmental Health. December 20, 2013.

Figures

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Source: Esri 2010; AECOM 2015.

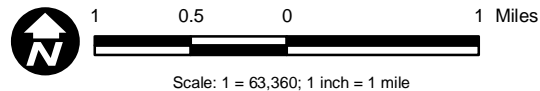


Figure 1
Site Location

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LEGEND

- Project Site
- San Diego River
- T Transformer
- ⊗ Storm Drain Outfall

Source: NAIP 2014.

500 250 0 500 Feet

Scale: 1 = 6,000; 1 inch = 500 feet

Figure 2
Site Plan

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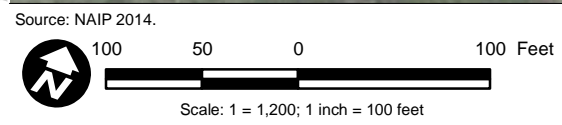


Figure 3
Site Plan - Southwest Inset

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Appendix A

**Representative
Site Photographs**

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Facility Name:
Qualcomm Stadium**Site Location:**
9449 Friars Road, San Diego,
San Diego County, California**Project No.**
60431885**Photo No.**
1**Date:**
7/7/15**Direction Photo
Taken:**

West northwest

Description:General overview of the
northwest side of the
subject property from top
level of stadium.**Photo No.**
2**Date:**
7/7/15**Direction Photo
Taken:**

Southwest

Description:General overview of the
southwest side of the
subject property from top
level of stadium.

Facility Name: Qualcomm Stadium	Site Location: 9449 Friars Road, San Diego, San Diego County, California	Project No. 60431885
---	---	--------------------------------



Photo No. 3	Date: 7/7/15	
Direction Photo Taken: East		
Description: General view of the west side of the stadium.		

Photo No. 4	Date: 7/7/15	
Direction Photo Taken: South		
Description: General view of the north side of the stadium.		

Facility Name: Qualcomm Stadium	Site Location: 9449 Friars Road, San Diego, San Diego County, California	Project No. 60431885
---	---	--------------------------------

Photo No. 5	Date: 7/7/15
Direction Photo Taken: West	
Description: General overview of the west side of the subject property.	



Photo No. 6	Date: 7/7/15
Direction Photo Taken: West	
Description: View of the northeast area of the parking lot. Onsite monitoring wells associated with the offsite fuel release from the northeast adjacent Kinder Morgan facility are visible in the foreground. Portion of Kinder Morgan facility visible in background.	



Facility Name:
Qualcomm Stadium**Site Location:**
9449 Friars Road, San Diego,
San Diego County, California**Project No.**
60431885**Photo No.**
7**Date:**
7/7/15**Direction Photo
Taken:**

West

Description:

View of the elevated trolley station and associated track on the south side of the subject property.

**Photo No.**
8**Date:**
7/7/15**Direction Photo
Taken:**

South

Description:

Representative view of the interior seating of the stadium.

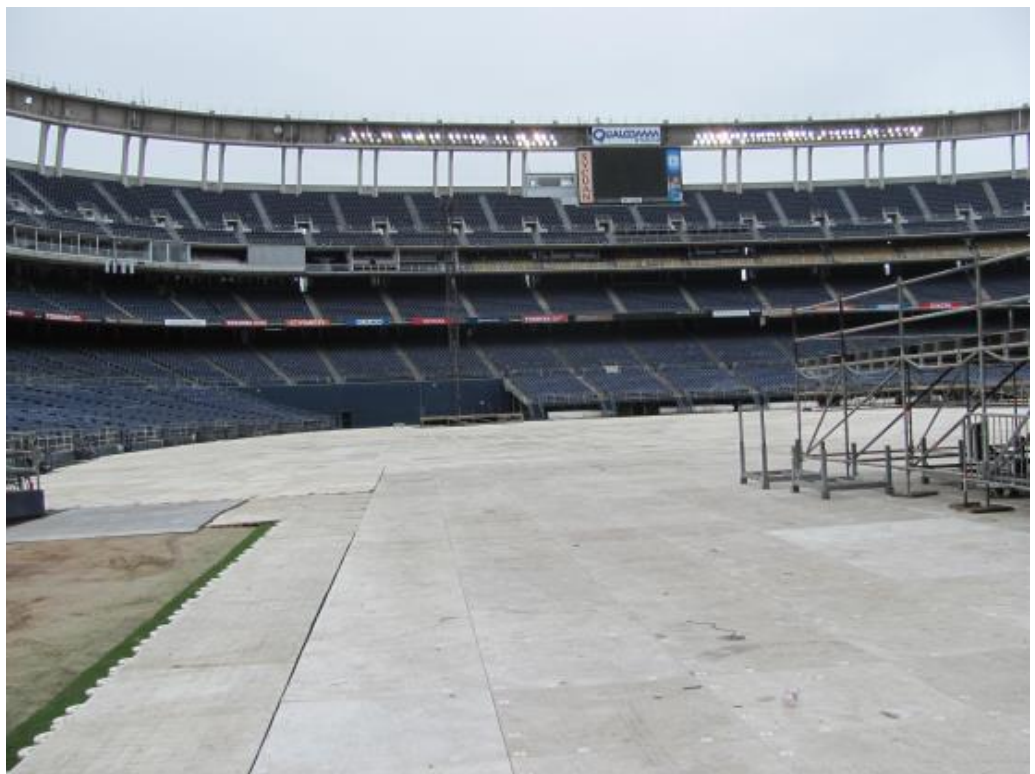


Facility Name: Qualcomm Stadium	Site Location: 9449 Friars Road, San Diego, San Diego County, California	Project No. 60431885
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Photo No. 9	Date: 7/7/15
Direction Photo Taken: West	
Description: General view of the interior seating in the stadium. The field was covered with temporary protective plastic tiles at the time of AECOMs facility visit.	



Photo No. 10	Date: 7/7/15
Direction Photo Taken: North	
Description: General view of the central portion of the stadium from field level.	



Facility Name: Qualcomm Stadium	Site Location: 9449 Friars Road, San Diego, San Diego County, California	Project No. 60431885
---	---	--------------------------------

Photo No. 11	Date: 7/7/15	
Direction Photo Taken: Northwest		
Description: A backup generator with associated diesel tank located within a fenced enclosure on the east side of the stadium.		

Photo No. 12	Date: 7/7/15	
Direction Photo Taken: South		
Description: View of the interior of the elevator 5 mechanical room located in the eastern portion of the stadium.		

Facility Name: Qualcomm Stadium	Site Location: 9449 Friars Road, San Diego, San Diego County, California	Project No. 60431885
---	---	--------------------------------

Photo No. 13	Date: 7/7/15
Direction Photo Taken: West	
Description: De minimis paint staining and debris located inside a sink basin in the Ground Crew area in East Tunnel on the east side of the stadium.	



Photo No. 14	Date: 7/7/15
Direction Photo Taken: North	
Description: Gasoline storage inside the Ground Crew maintenance room located in the eastern portion of the stadium.	



Facility Name: Qualcomm Stadium	Site Location: 9449 Friars Road, San Diego, San Diego County, California	Project No. 60431885
---	---	--------------------------------


Photo No. 15	Date: 7/7/15	
Direction Photo Taken: South		
Description: Vehicle entry into the basement level in the south side of the stadium.		

Photo No. 16	Date: 7/7/15	
Direction Photo Taken: NA		
Description: Refrigeration units utilized by food vendor tenants located on Basement Level 2 of the stadium.		

Facility Name: Qualcomm Stadium	Site Location: 9449 Friars Road, San Diego, San Diego County, California	Project No. 60431885
---	---	--------------------------------

Photo No. 17	Date: 7/7/15
Direction Photo Taken: NA	
Description: View of sewer lift pumps located in the maintenance room of Basement Level 1 in the stadium building.	



Photo No. 18	Date: 7/7/15
Direction Photo Taken: NA	
Description: Battery storage located inside a telecommunications room on Level 5 of the stadium building.	



Facility Name:
Qualcomm Stadium**Site Location:**
9449 Friars Road, San Diego,
San Diego County, California**Project No.**
60431885**Photo No.**
19**Date:**
7/7/15**Direction Photo Taken:**

West

Description:

Representative view of the exterior hallway on Level 4 of the stadium building.

**Photo No.**
20**Date:**
7/7/15**Direction Photo Taken:**

NA

Description:

A mop sink located inside a janitorial storage closet on Level 3 of the stadium building.



Facility Name: Qualcomm Stadium	Site Location: 9449 Friars Road, San Diego, San Diego County, California	Project No. 60431885
---	---	--------------------------------

Photo No. 21	Date: 7/7/15	 A photograph showing the interior of an in-ground grease trap. The trap is a rectangular metal box with a perforated metal grate floor. A large, rusted metal cover is propped open, revealing the dark interior. The trap is set into a concrete floor.
Direction Photo Taken: NA		
Description: Interior view of an in-ground grease trap located inside a food vendor kitchen area in the stadium.		

Photo No. 22	Date: 7/7/15	 A photograph of an above-ground grease trap. It is a white, rectangular plastic container with a lid. A metal pipe with a valve is connected to the side of the trap. The trap is located in a kitchen area with a tiled floor and a yellow wall in the background.
Direction Photo Taken: NA		
Description: An above-ground grease trap located in a food vendor kitchen area in the stadium.		

Facility Name:
Qualcomm Stadium**Site Location:**
9449 Friars Road, San Diego,
San Diego County, California**Project No.**
60431885**Photo No.**
23**Date:**
7/7/15**Direction Photo Taken:**

West

Description:

The maintenance building (right), sewer lift station (red arrow) and a storage trailer located in the southwestern portion of the subject property.

**Photo No.**
24**Date:**
7/7/15**Direction Photo Taken:**

North

Description:

General view of the interior of the maintenance building.



<p>Facility Name: Qualcomm Stadium</p>	<p>Site Location: 9449 Friars Road, San Diego, San Diego County, California</p>	<p>Project No. 60431885</p>
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<p>Photo No. 25</p>	<p>Date: 7/7/15</p>
<p>Direction Photo Taken: North</p>	
<p>Description: The 1,500-gallon diesel and gasoline AST located in the maintenance area in the southwestern portion of the subject property.</p>	



<p>Photo No. 26</p>	<p>Date: 7/7/15</p>
<p>Direction Photo Taken: South</p>	
<p>Description: The hazardous waste storage area located at the exterior west side of the maintenance building.</p>	



Facility Name: Qualcomm Stadium	Site Location: 9449 Friars Road, San Diego, San Diego County, California	Project No. 60431885
---	---	--------------------------------

Photo No. 27	Date: 7/7/15
Direction Photo Taken: West	
Description: De minimis staining associated with the hazardous waste storage area.	



Photo No. 28	Date: 7/7/15
Direction Photo Taken: Southwest	
Description: General view of the maintenance area in the southwestern portion of the subject property. Two trash compactors are visible in the background and the footprint to a former water reclamation facility is visible in the foreground.	



Facility Name: Qualcomm Stadium	Site Location: 9449 Friars Road, San Diego, San Diego County, California	Project No. 60431885
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Photo No. 29	Date: 7/7/15
Direction Photo Taken: South	
Description: General view of the southwestern corner of the subject property. The practice field is visible in the background (right) and the San Diego Fire Department Station 45 is visible in the center.	



Photo No. 30	Date: 7/7/15
Direction Photo Taken: East	
Description: The sewer lift station located north of the practice field restrooms. The practice field is visible in the background. The backup generator associated with the San Diego Fire Department Station 45 facility is visible beyond the chain-link fence to the right (obscured view).	



Facility Name:
Qualcomm Stadium**Site Location:**
9449 Friars Road, San Diego,
San Diego County, California**Project No.**
60431885**Photo No.**
31**Date:**
7/7/15**Direction Photo Taken:**

East

Description:

Pesticide and fertilizer storage on the south side of the subject property.

**Photo No.**
32**Date:**
7/7/15**Direction Photo Taken:**

East

Description:

Interior view of the three-sided, concrete block storage structure located in the southwestern portion of the subject property.



<p>Facility Name: Qualcomm Stadium</p>	<p>Site Location: 9449 Friars Road, San Diego, San Diego County, California</p>	<p>Project No. 60431885</p>
---	--	--

<p>Photo No. 33</p>	<p>Date: 7/7/15</p>
<p>Direction Photo Taken: East</p>	
<p>Description: Universal waste storage area in the three-sided, concrete block storage structure located in the southwestern portion of the subject property.</p>	



<p>Photo No. 34</p>	<p>Date: 7/7/15</p>
<p>Direction Photo Taken: West</p>	
<p>Description: View of the sod farm (foreground) and conex storage trailers (background) located in the exterior storage area in the southwestern portion of the subject property.</p>	



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Appendix B

**Previously Prepared
Environmental Reports**

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Appendix B-1

Phase II Environmental Site Assessment Report, Converse Consultants, May 4, 2006

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RECEIVED

2006 MAY 15 AM 9 15

Consulting Engineering and Applied Sciences



Converse Consultants

D. E. H. MAILROOM

222 East Huntington Drive, Suite 211
Monrovia, California 91016-3500

Telephone: (626) 930-1200
Facsimile: (626) 930-1212

*(909) 796-0844
714 444 0660*

Transmittal

Date May 12, 2006

Project Qualcomm/Tanker Fire

To San Diego County DEH
1255 Imperial Avenue, 3rd Floor
San Diego, CA 92101

Attention David Felix

We are sending you the following

- Regular Mail
- Express Mail
- Messenger
- FedEx
- CA Overnight
- Client Pickup
- Converse Deliver
-

Quantity	Description
1	Revised conclusions and revised Figures 3, 4, 5 and 6 and new figures 7 and 8 for the Phase II Environmental Site Assessment Report, Soil Gas Survey and Soil Sampling at Qualcomm Stadium.

Remarks

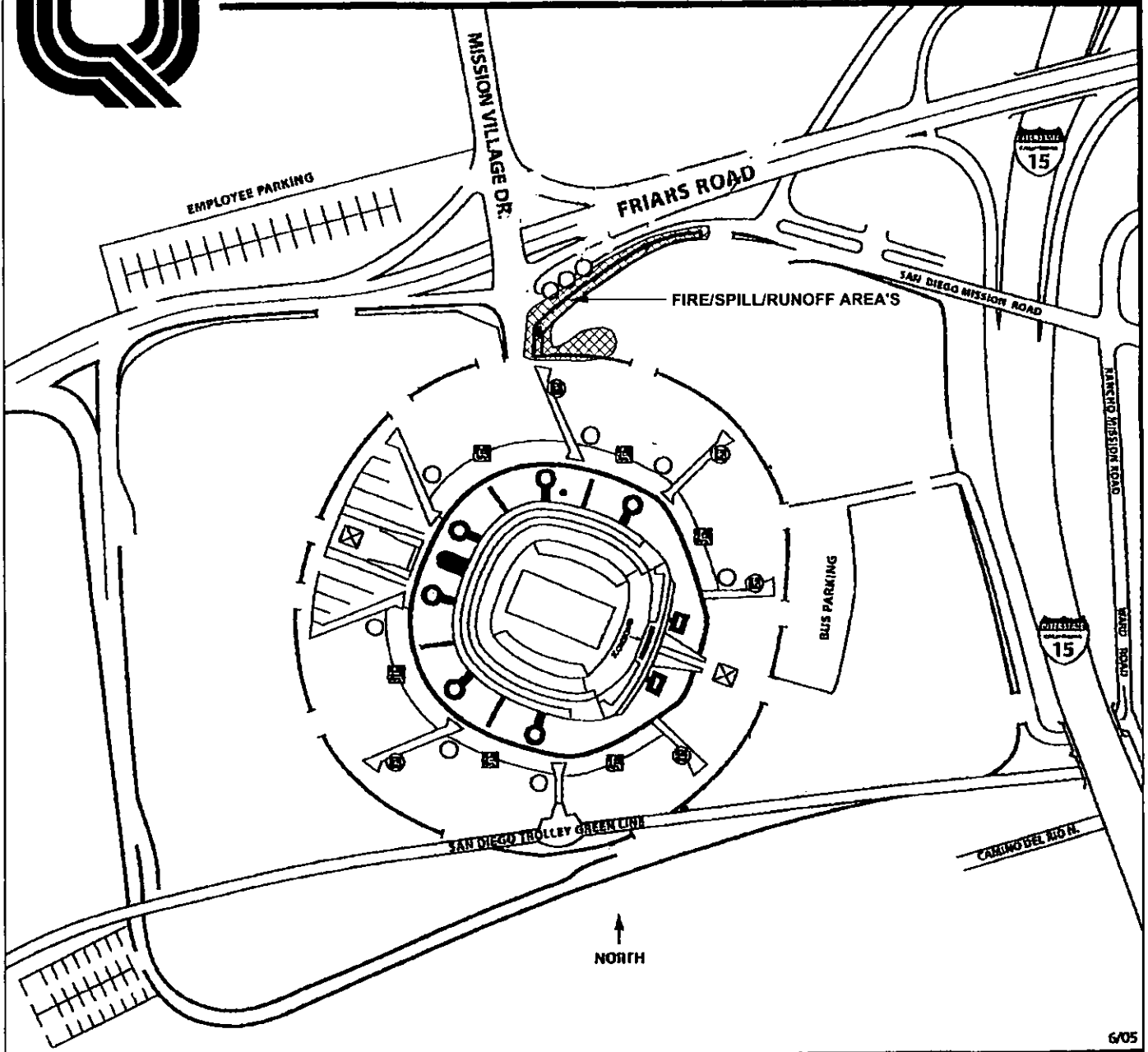
Sent at the request of William Ragsdale.

Copies To

Sent By John Ziegler



QUALCOMM STADIUM PARKING LOT



(MAP PROVIDED BY QUALCOMM STADIUM)

SITE MAP

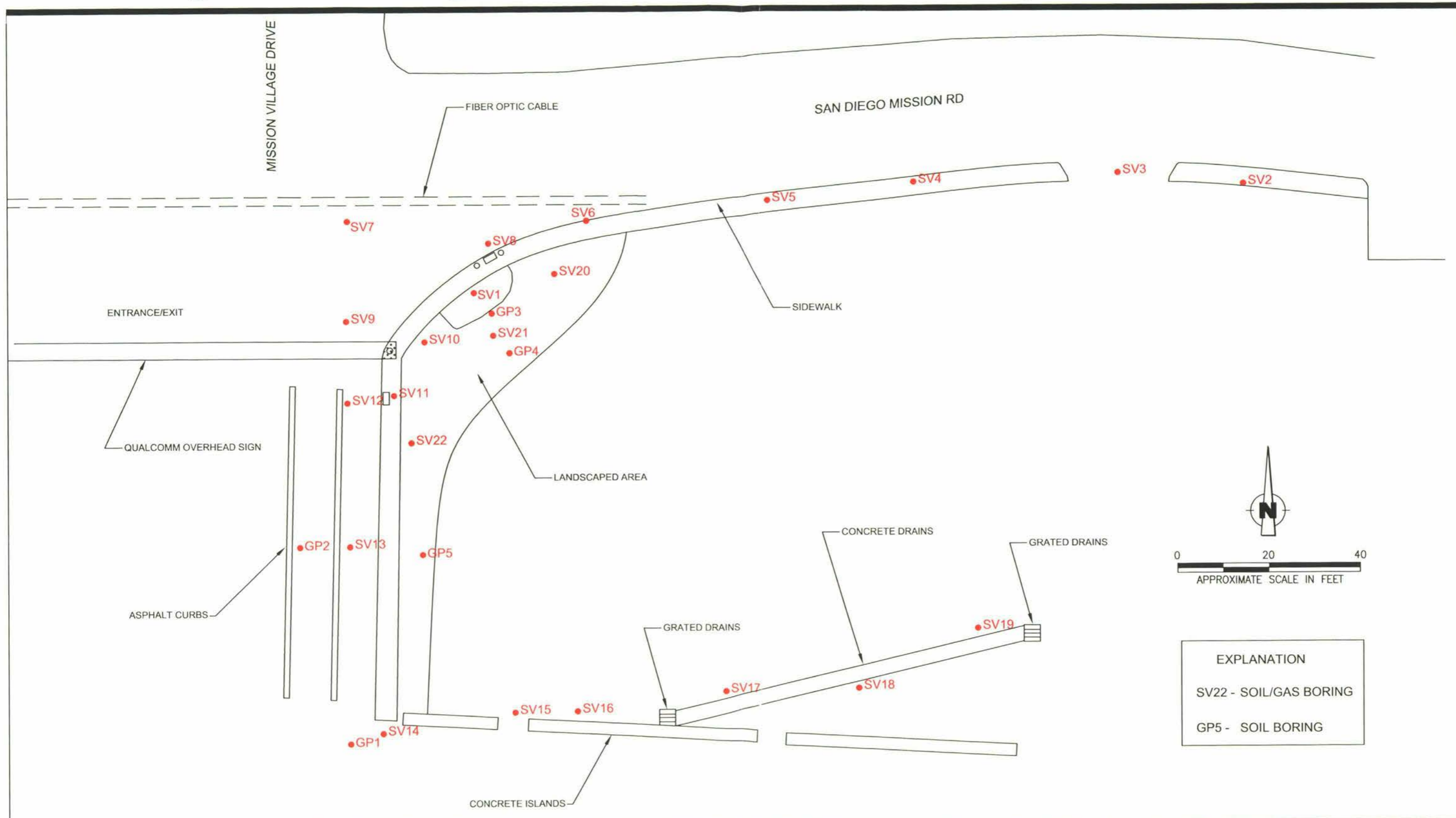


Converse Consultants

QUALCOMM STADIUM
9449 FRIARS ROAD
SAN DIEGO, CA

Project No.
05-16-255-01

Figure No.
1



BORING LOCATION MAP

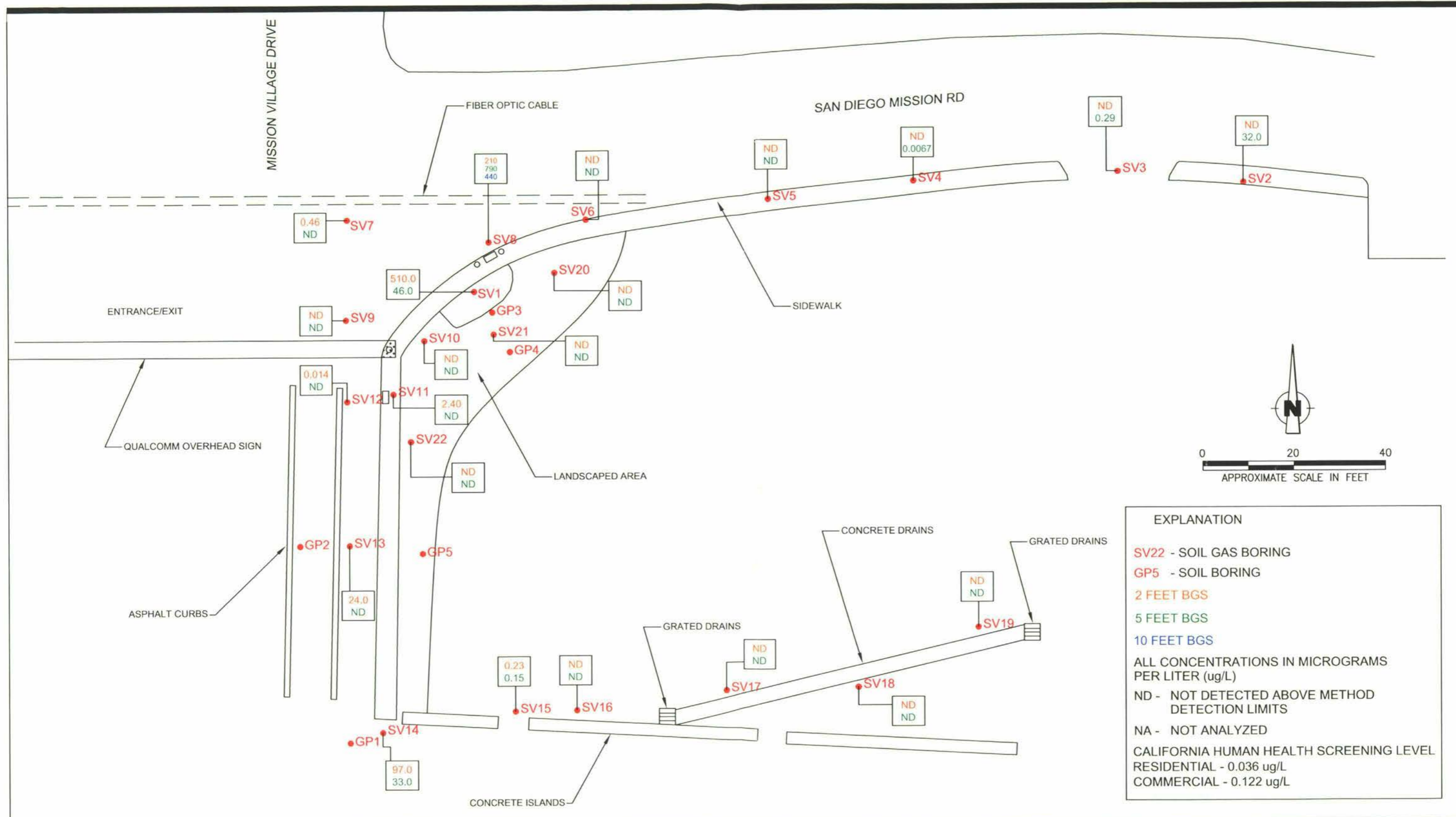


Converse Consultants

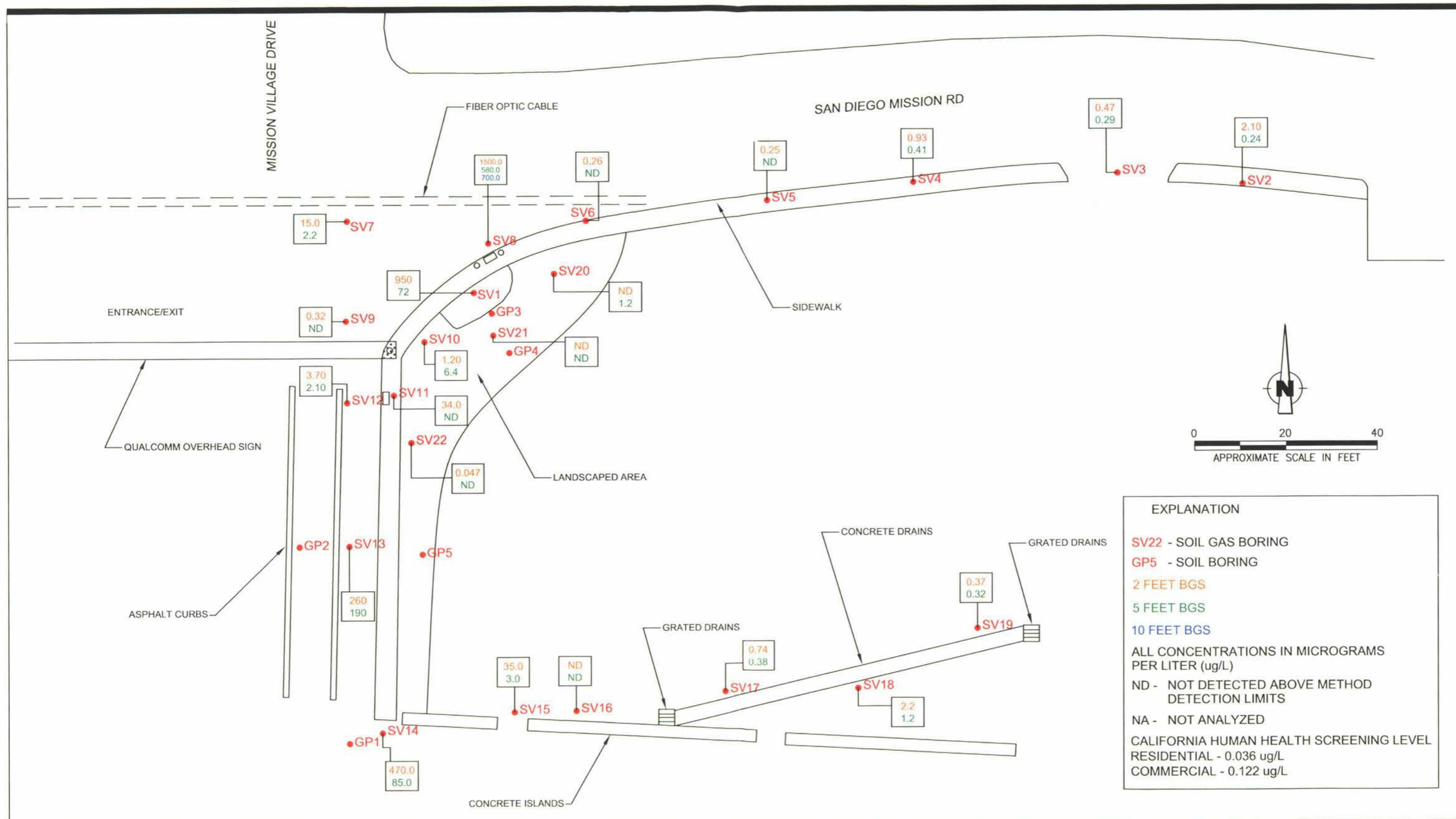
QUALCOMM STADIUM
9449 FRIARS ROAD
SAN DIEGO, CA

Project No.
05-16-255-01

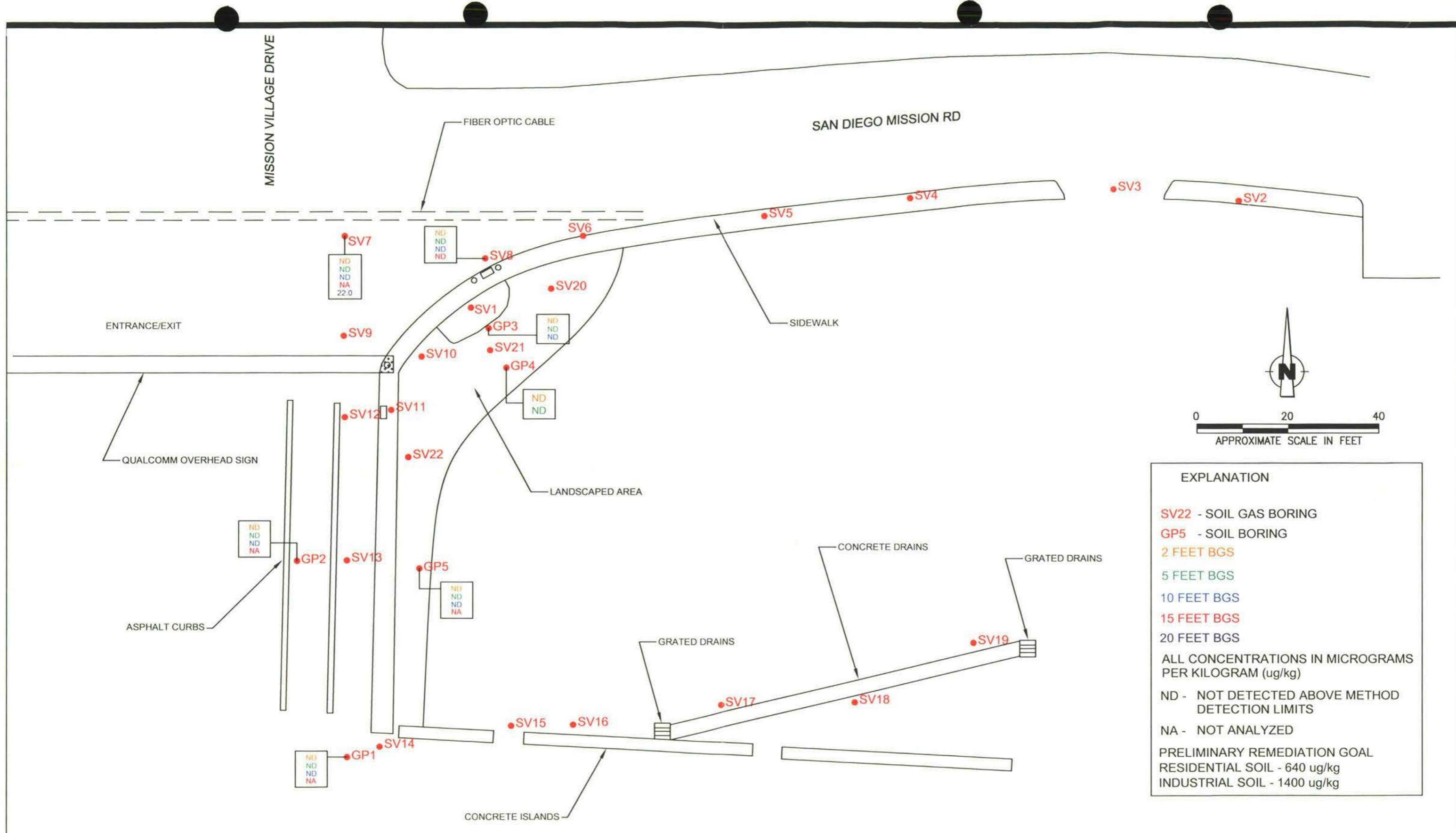
Figure No.
2



SOIL GAS CONCENTRATIONS-BENZENE



SOIL GAS CONCENTRATIONS-TOLUENE



SOIL CONCENTRATIONS-BENZENE



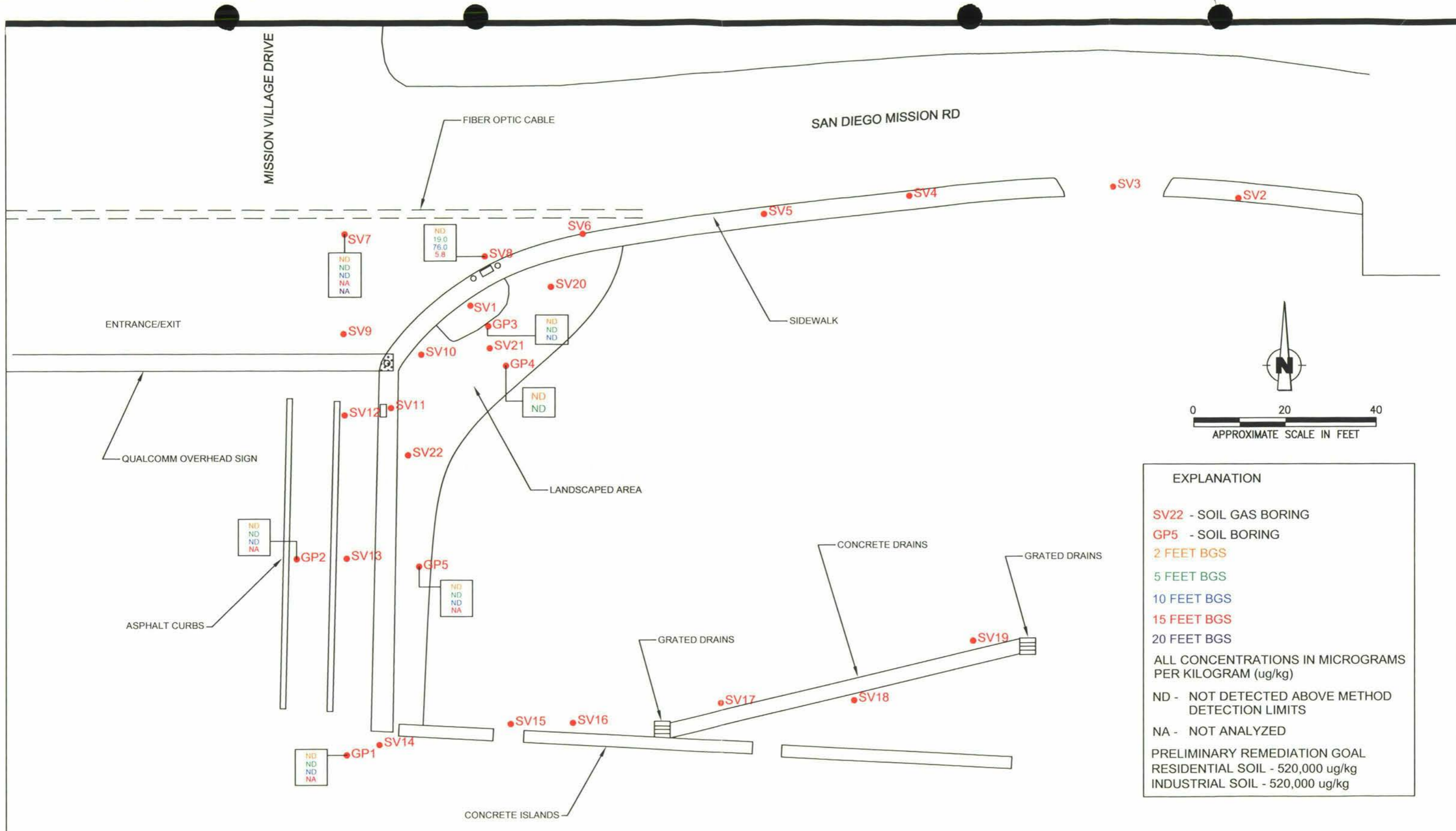
Converse Consultants

QUALCOMM STADIUM
9449 FRIARS ROAD
SAN DIEGO, CA

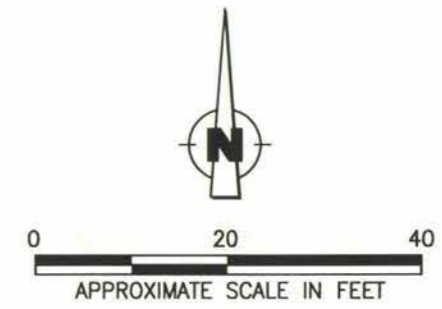
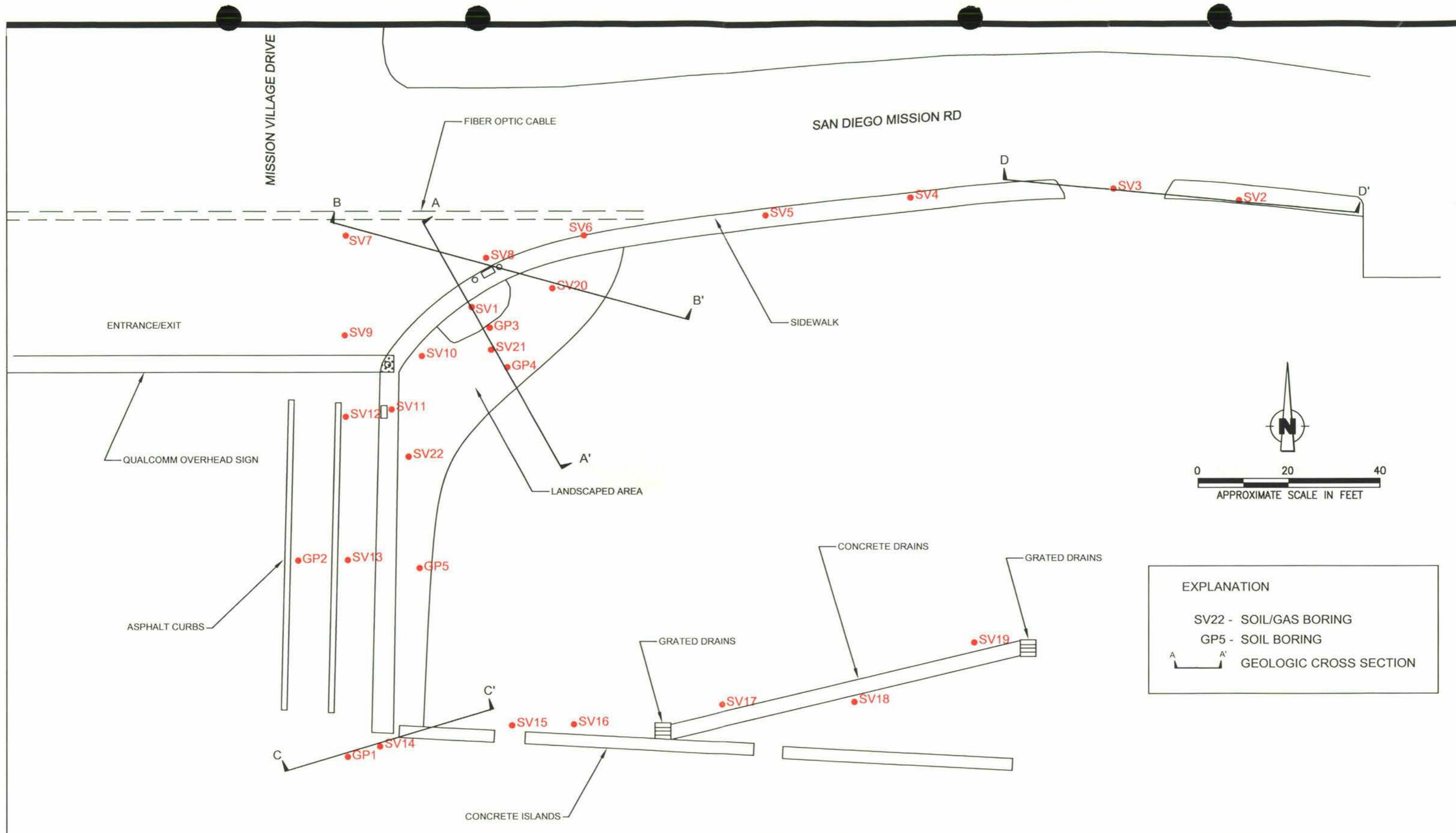
Project No.
05-16-255-01

Figure No.

5

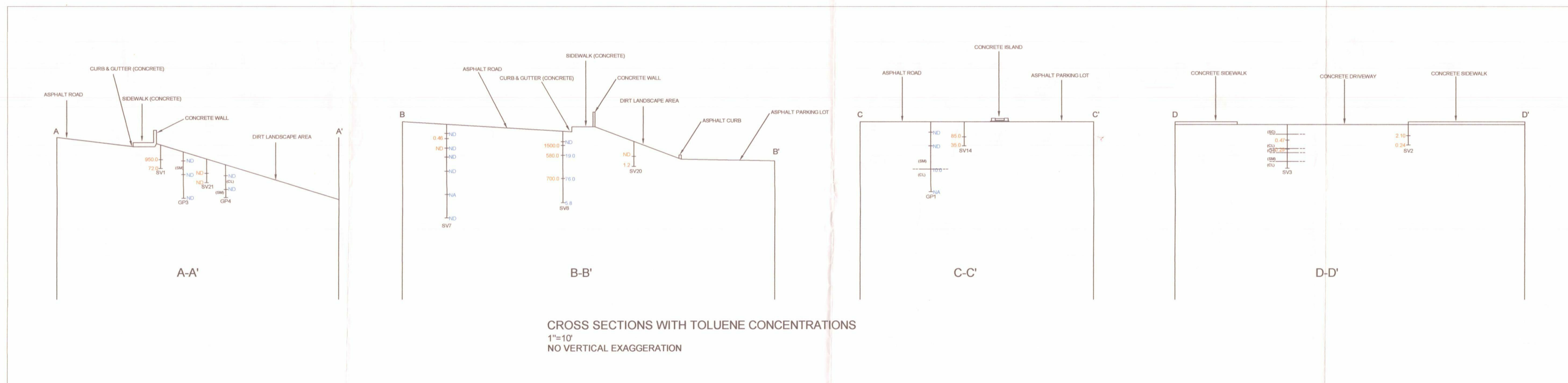
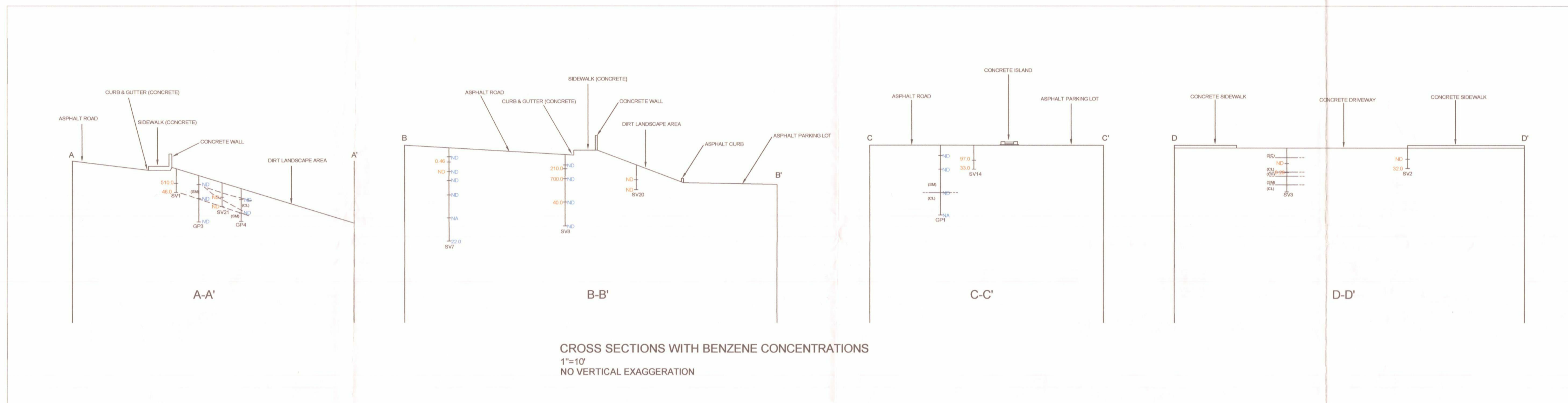


SOIL CONCENTRATIONS-TOLUENE



EXPLANATION	
SV22	SOIL/GAS BORING
GP5	SOIL BORING
A-A'	GEOLOGIC CROSS SECTION

CROSS SECTIONS MAP



EXPLANATION
 SV - SOIL GAS
 GP - SOIL BORING
 SOIL GAS CONCENTRATIONS (in ug/L)
 SOIL CONCENTRATIONS (in ug/kg)
 (SC) - CLAYEY SAND
 (CL) - SILTY CLAY
 (SM) - SILTY SAND
 (CL) - CLAY

CROSS SECTIONS

QUALCOMM STADIUM 9449 FRIARS ROAD SAN DIEGO, CA	Scale 1"=10' Project No. Date MAY, 2006 05-16-255-01 Figure No.
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D. C. H.
MAILROOM

**PHASE II ENVIRONMENTAL SITE
ASSESSMENT REPORT
Soil Gas Survey and Soil Sampling
Qualcomm Stadium
San Diego, California**

May 4, 2006

Converse Project No. 05-16-255-02



Converse Consultants

Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

60th Anniversary

1946 - 2006

May 4, 2006

Mr. Jim Welch
Van Dyk Tank Lines
P.O. Box 341
Bloomington, CA 92316-4723

Subject: **PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT**
Soil Gas Survey and Soil Sampling
Qualcomm Stadium
San Diego, California
Converse Project No. 05-16-255-02
Voluntary Assistance Program Case # H21360-001

Dear Mr. Welch:

Converse Consultants (Converse) presents this Phase II Environmental Site Assessment Report for Soil Gas and Soil Sampling to evaluate the potential impact of a gasoline tanker spill at the intersection of Mission Village Drive and San Diego Mission Road, near the entrance to Qualcomm Stadium located in San Diego, California. The activities presented in this report were completed in response to the City of San Diego request that all soil impacted by the tanker spill and fire be appropriately assessed and remediated under the County of San Diego, Department of Environmental Health (DEH) Voluntary Assistance Program (VAP).

Prior to initiating these assessment activities, Converse submitted a Work Plan and Addendum I to the Work Plan to the DEH for approval. The assessment activities in the Work Plan included conducting a soil gas survey and soil sampling to evaluate the potential impact of the tanker spill and resulting fire to the subsurface soils beneath the site. On February 3, 2003, DEH approved the Work Plan and Addendum I for implementation.

BACKGROUND

The site is situated at the north entrance of Qualcomm Stadium and includes a landscaped slope, adjoining parking lot, sidewalk and asphalt pavement to the southeast of the intersection of Mission Village Drive and San Diego Mission Road. See Figure 1 – Site Location Map.

On December 7, 2005, a tanker truck containing gasoline overturned at the southeast corner of Mission Village Drive and San Diego Mission Road resulting in a fuel spill and fire. The fuel and water used to control the fire was allowed to flow to the south, down the curb and gutter into the southeast adjacent parking lot where it was contained by the



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fire department before being removed by a vacuum truck for disposal. All liquids were removed and a limited amount of surface soil was removed from the slope within 24 to 48 hours.

By February 3, 2006, the following site clean up activities were completed.

- Storm drains and the immediate surface area impacted by spill and fire have been cleaned or secured until further assessment can be conducted.
- A meeting with Regulatory Agencies and the City of San Diego representatives was conducted on December 20, 2005, outlining regulatory and City concerns and requests. Jack Prescott, Oil Prevention Specialist of the Marine Safety Branch of the State of California Department of Fish and Game was identified to be the lead for the clean up in the area of the San Diego River and George McCandless, Supervising Environmental Health Specialist of the San Diego County Department of Environmental Health the lead for the clean up near the spill site.
- Background soil samples were collected from three locations near the storm drain outfall and one from the storm drain outfall to the west.
- Application for the Voluntary Assistance Program was submitted to the DEH.
- Storm drains were video taped by the City of San Diego with no apparent damage reported.
- Removal of impacted soil from the San Diego River near the storm drain outfall has been completed. Converse recommended no further action based upon review of the analytical results. Jack Prescott of the State of California Department of Fish and Game has concurred that no addition clean up is warranted.
- Submittal of Work Plan dated January 24, 2006 to DEH.
- Submittal of Addendum to Workplan dated February 1, 2006 addressing DEH and City Comments.
- Approval of Work Plan and Addendum received from the DEH February 3, 2006.

Groundwater is estimated to range from approximately 6.28 feet below ground surface (bgs) to 34.59 feet bgs as measured in August 2005 from onsite wells associated with remedial activities associated with the adjacent Mission Valley Terminal. Groundwater is not expected to be impacted. Evaluation of groundwater is not included in this assessment. Groundwater information was obtained from a review of a 3rd Quarter groundwater monitoring and remedial progress report dated October 28, 2005, prepared by LFR Levine Fricke for Kinder Morgan Energy Partners. The report is for current remedial activities on the site and adjoining properties to the northeast. The report was



provided by the San Diego Regional Water Quality Control Board to assist in evaluating the impact of the tanker spill/fire.

OBJECTIVE

The objective of this Phase II is to assess the areas impacted by the tanker spill/fire for potential impact to subsurface soil.

SCOPE OF WORK

To achieve the above objective, Converse completed the following scope of work.

- Prepared a site specific Health and Safety Plan;
- Conducted a site walk to observe the existing operating conditions at the site, mark-boring locations, and reviewed all provided as-built site plans for the presence of underground utilities;
- Conducted a geophysical survey in the area of the borings for subsurface obstructions and utilities;
- Obtained all permits needed to complete the proposed activities;
- Used a direct push drill rig to complete twenty-two (22) soil gas borings;
 - Soil gas samples were collected at three (3) and five (5) feet below ground surface (bgs) at all locations, with the exception of SV8, where one (1) sample was collected at 10 feet bgs and one (1) soil gas sample was attempted at 15 feet bgs.
- Forty-seven (47) soil gas samples (not including duplicates) were analyzed, using an onsite mobile laboratory, in accordance with following;
 - EPA Method 8260 for Volatile Organic Compounds (VOCs).
 - EPA Method 8015 Total Petroleum Hydrocarbons for Gasoline (TPHg).
- Used a direct push drill rig to complete seven (7) soil borings; *5 GP 2 SV*
 - Soil samples were collected at two (2), five (5), ten (10) and fifteen (15) feet bgs or first refusal at all locations.
- Twenty-three (23) selected soil samples were analyzed, using a State Certified Laboratory, in accordance with the following;



- EPA Method 8260 for VOCs
 - EPA Method 8015 TPHg
 - EPA Method 8015 Carbon Chain distribution (cc);
- Provided traffic control on Mission Village Drive and San Diego Mission Road during the sampling activities.
 - Prepared this assessment report in general accordance with the County of San Diego Site Assessment (SAM) manual.

ASSESSMENT ACTIVITIES

The assessment activities presented below were completed on February 8, 9 and 10, 2006. See Figure 2 – Boring Location Map.

On February 8, 2006, a geophysical survey was completed and several subsurface features (i.e. utility lines and trenches) were identified. See Appendix A for a copy of the completed Geophysical Report.

On February 8, 9 and 10, 2006, soil gas sampling was conducted at twenty-two (22) on-site locations. The samples were collected at depths of 3-feet and 5-feet bgs.

On February 9 and 10, 2006, soil samples were collected at seven (7) on-site locations. The samples were collected at depths of 2-feet, 5-feet, 10-feet and 15-feet bgs or to first refusal.

Soil Gas Sampling

Soil gas samples were collected in general accordance with the SAM manual and as described below.

Soil gas samples were collected using direct push technology, utilizing low-purge, low-volume, and syringe type techniques as outlined in the SAM manual. A steel probe was pushed to the appropriate depth. The probe was then retracted approximately three inches releasing the expendable tip. New dedicated ¼ inch tubing was then fed down the probe rod and was connected to the end of the sampler. Bentonite was placed around the steel rod to create a seal.

A tracer gas (n-Propanol) was used at all locations to verify the integrity of the seal. Prior to obtaining each sample, the sampling train was purged and the flow rates were allowed to stabilize prior to withdrawing the sample with a syringe.

A purge volume test was performed at the first sample location to determine the appropriate purge volume to be used during sample collection. The purge volume was de-



terminated by collecting three consecutive samples from the same location (SV1-3) using three different purge volumes. The three samples were analyzed by the same methods and the purge volume with the highest analyte concentrations was used. Therefore, a purge volume of 7 times the sample train was used during the collection of the soil gas samples.

A minimum of 10% duplicate soil gas were collected for QA/QC purposes.

All soil gas samples were submitted to an onsite mobile laboratory and analyzed in accordance with EPA Method 8260 for VOCs and 8015 TPHg.

Soil Sampling

To collect each soil sample during drilling, a steel rod was hydraulically advanced into the soil to the desired sample depth and a closed end sampler with an acetate liner was then advanced at the end of the rod. Upon reaching the intended sample depth, the sampler pin was unlocked to open the sampler, which was then driven an additional 2-feet into the soil. The sampler was then raised to the ground surface to retrieve the soil sample. Upon retrieval, the soil samples were immediately removed and capped.

Before each use, the appropriate drilling and sampling equipment was cleaned, rinsed with tap water and final rinsed with distilled water. Soil samples to be analyzed for VOCs were prepared/collected from the acetate sleeves for each sample depth. A portion of the soil was removed from the sleeve and placed into a plastic bag, screened in the field with a PID for VOCs and visually inspected. The remaining soil in the acetate sleeve was sealed with Teflon film and plastic end caps, labeled, enclosed within a plastic bag and placed on ice for and delivered to the State of California certified, under Chain of Custody documentation, for analysis.

Groundwater was not encountered during the completion of any of the soil borings to a maximum depth of fifteen (15) feet bgs.

Continuous cores were collected at selected locations to help identify lithologies in the area of the assessment

For a complete description of the soil encountered in the borings see Appendix B – Boring Logs. *APPX A*

LABORATORY ANALYSIS

Soil Gas

Soil gas samples were analyzed in general accordance with following EPA Test Methods:



- EPA Method 8015M for TPH as gasoline; and
- EPA Method 8260 for VOCs.

A total of 47 samples were submitted for analysis. The soil gas samples were analyzed on site in a mobile laboratory by Jones Environmental, a state certified laboratory.

Soil

Selected soil samples were analyzed in general accordance with following EPA test Methods:

- EPA Method 8015M for TPH as gasoline;
- EPA Method 8015M for TPH as carbon chain(SV7-20 only); and
- EPA Method 8260 for VOCs.

A total of 27 samples were submitted for analysis and 4 samples were archived for future analysis if needed. The soil samples were analyzed on a normal 5 to 7 day turnaround time by Associated Laboratories a state certified laboratory located in Orange, California.

The laboratory report and Chain of Custody documentation are included in Appendix C. *alc*

DISCUSSION

Soil Gas

The California Environmental Protection Agency (Cal-EPA) uses California Health Screening Levels (CHHSLs), dated January 2005, and provides applicable guidance with respect to human health risk for evaluation of potential vapor intrusion into buildings and subsequent impact to indoor-air. The health risk screening levels are based on soil gas samples collected at a depth of five (5) feet bgs. Therefore; the soil samples collected from a depth of 5 feet bgs were used to evaluate the vapor intrusion risk.

For a specific compound, two separate screening levels are presented: one for industrial/commercial land use and another for residential land use. When considering screening levels as preliminary goals, the residential concentrations are used as the target level for comparison.

Soil

The US EPA Region IX Preliminary Remediation Goals (PRG) "guidance table", dated October 2004, provides applicable guidance with respect to site remediation requirements for soil.



For a specific compound, two separate PRGs are presented: one for industrial land use and another for residential land use. When considering PRG's as preliminary goals, the residential concentrations are used as the target level for comparison.

SUMMARY OF RESULTS AND OBSERVATIONS

- At boring location SV7 soil became discolored at 10 and 15 feet bgs containing an oily appearance. The boring was then advanced to 20 feet bgs and it was observed to have heavier oil stained appearance. The 20-foot sample was submitted for analysis for VOCs and an additional analysis was requested (8015M Carbon Chain) to help identify if any impact.
- Groundwater was not encountered. In any of the borings during this investigation.
- In general, the subsurface soils encountered in the borings consisted of various mixtures of silts and sands to a depth of approximately 10 feet bgs. Soils encountered from 10 to 20 feet bgs consisted of various mixtures of silts, sands, and clays to a depth of approximately 20 feet bgs, the maximum depth of the borings.

A summary of the analytical results of the soil gas samples and the soil samples is presented below. A complete summary of the analytical results is presented in Table 1 and Table 2. The laboratory analytical report is presented in Appendix B. *ATPX. C*

Soil Gas Sample Analytical Results

The analytical results from the on-site mobile laboratory reported ten compounds above the method detection limit.

- TPHg concentrations above the method detection limit were identified in 28 of the samples analyzed. The TPHg concentrations in these samples ranged from 14 micrograms per liter (ug/L) in sample SV3-3 to a maximum of 24,000 ug/L in sample SV1-3.
- Benzene concentrations above the method detection limit were identified in 18 of the samples. Benzene concentrations exceeded CHHSLs in 16 of the 47 samples analyzed. These concentrations ranged from 0.25 ug/L (SV15-5) to 790 ug/L (SV8-5).
- Toluene concentrations above the method detection limit were identified in 37 of the samples analyzed. Toluene exceeded CHHSLs in 9 of the 47 samples analyzed. These concentrations ranged from 580.0 ug/L (SV8-5) to 1,500.0 ug/L (SV8-3).



- Ethylbenzene concentrations above the method detection limit were identified in 11 of the samples analyzed. The ethylbenzene concentrations in these samples ranged from 0.09 ug/L in sample SV18-3 to a maximum of 91 ug/L in sample SV8-10. No residential or industrial CHHSL have been established for ethylbenzene.
- Total Xylenes concentrations above the method detection limit were identified in 16 of the samples analyzed. The xylene concentrations in these samples did not exceed the CHHSL and ranged from 0.10 ug/L in sample SV18-5 to 280 ug/L in sample SV8-10. The representative value for the total xylenes is based on the calculated lowest value of the three isomers.
- A methyl-tert-butylether (MTBE) concentration of 0.31 ug/L was identified in sample SV2-5. This concentration is below the residential CHHSL value of 4.0 ug/l.
- Trichloroethylene (TCE) concentrations above the method detection limit were identified in 3 of the samples analyzed. These concentrations ranged from 0.17 ug/l in sample SV10-3 to 0.088 ug/L in sample SV7-3 and are well below the CHHSL residential value.
- Trace concentrations of isopropylbenzene, n-Propylbenzene, and n-Butyl benzene were also identified in some of the samples. However, no CHHSLs values have been established for these constituents.

See Table 1 - Soil Gas Analytical Results for a summary of reported concentrations. a/c

Soil Sample Analytical Results

- The analytical results indicated no concentrations of TPHg were detected above the method detection limits in any of the samples analyzed. However, concentrations of 6.2 milligram per Kilogram (mg/Kg) in the C6-C10 range and 3.0 mg/Kg in the C22-C36 range were detected above the method detection limit in sample SV7-20.
- A benzene concentration of 22 mg/kg was reported in sample SV7-20. This concentration is well below the PRGr of 640 mg/kg.
- Toluene concentrations above the method detection limit were identified in 4 of the soil samples analyzed. The concentrations in these samples did not exceed the PRGr and ranged from 5.8 mg/Kg in sample SV8-15 to 76 mg/Kg in sample SV8-10.
- Ethylbenzene concentrations of 5.2 and 22 mg/Kg were identified in samples SV7-20 and SV8-10 respectively. These concentrations are below the ethylbenzene PRGr.



- Total Xylenes concentrations above the method detection limit were identified in 4 of the samples analyzed. These concentrations ranged from 6.8 mg/Kg in sample SV8-5 to 131mg/Kg in sample SV8-10. These concentrations are well below the PRGr.
- Concentrations of 1,2,4 trimethylbenzene and 1,3,5 trimethylbenzene were identified in two samples and trace concentrations of n-propylbenzene and TBA were identified in one sample. The concentrations of these constituents are well below the individual constituents PRGr.

See Table 2 - Soil Analytical Results for a summary of reported concentrations.

CONCLUSIONS

Based on the results of our current assessment activities, Converse concludes:

- Soil is not impacted with VOCs above the preliminary remediation goals for residential soil.
- Gasoline was not reported in the soil samples analyzed.
- Results of the soil vapor survey identified two areas of potential impact. at the site. One was in the area where the tanker originally burned (near SV-1 and SV-8). This area of impact appears to be limited to the area around SV-1 and SV-8. Benzene was reported in excess of the CHHSL for residential land use in this area. Concentrations decrease to non-detect to the east and south. Toluene was reported in excess of the CHHSL at SV-1 and SV-8. No other detections of toluene were reported in excess of the CHSSLS.

The second area is at the bottom of the entry ramp to Qualcomm Stadium (near SV-14) where fuel and water appeared to have pooled as a result of the fire fighting efforts. Benzene was reported in excess of the CHHSL for residential land use in this area. Concentrations decrease to non-detect to the east and south.

- A third area of potential impact located near SV-2 and SV-3 reported low concentrations of Benzene and MTBE. It appears likely that these reported concentrations are from the Kinder Morgan facility to the northeast of the site. Review of the 3rd Quarter Quarterly Groundwater and Remedial Progress Report Dated October 28, 2005, prepared by others for the Kinder Morgan facility states that two of the main constituents from the release at the that facility were Benzene and MTBE. Soil gas sample results from this assessment showed no reported concentrations of Benzene in samples collected at SV5 and SV6 to the immediate



- Total Xylenes concentrations above the method detection limit were identified in 4 of the samples analyzed. These concentrations ranged from 6.8 mg/Kg in sample SV8-5 to 131mg/Kg in sample SV8-10. These concentrations are well below the PRGr.
- Concentrations of 1,2,4 trimethylbenzene and 1,3,5 trimethylbenzene were identified in two samples and trace concentrations of n-propylbenzene and TBA were identified in one sample. The concentrations of these constituents are well below the individual constituents PRGr.

See Table 2 - Soil Analytical Results for a summary of reported concentrations. *4/c*

CONCLUSION

Based on the results of our current assessment activities, Converse concludes:

- Soil is not impacted above residential preliminary remediation goals.
- There appears to be two potentially impacted soil vapor areas at the site. One was the tanker originally burned (near SV-1) and the second at the bottom of the entry ramp to Qualcomm Stadium (near SV-14) where fuel and water appeared to have pooled as a result of the fire fighting efforts. A third area around SV-2 and SV-3 has low concentrations that appear to be from the Kinder Morgan facility.
- The elevated TPHg and VOC soil gas concentrations in borings SV-1, SV-7, SV-8 and SV-14 with the relatively low corresponding soil sample concentrations, appeared to indicate that soil gas vapors may be trapped beneath the paved surface.

CLOSURE

This report has been prepared for the exclusive use of Van Dyk Tank Lines in accordance with the terms and conditions under which these services were provided. Any reliance on this report by third parties shall be at third party's sole risk. Our services have been performed in accordance with applicable state and local ordinances, and generally accepted practices in the geosciences. No other warranty, either expressed or implied, is made.

Converse Consultants is not responsible or liable for the accuracy or completeness of available information provided by others. Site exploration identifies actual subsurface conditions only at those points where samples are taken, when they are taken.



west of the sample locations. In addition, benzene was not reported at the 3 foot bgs samples at SV2 and SV3.

Furthermore, MTBE was reported in the SV2 sample at 5 feet. MTBE was not listed as an additive in the fuel that was being transported in the tanker that burned. Based on this, it is Converse's opinion that the reported concentrations of benzene and MTBE at location SV2, SV3 and SV4 are from a source other than the tanker..

- The reported concentration benzene at location SV7 does not appear to be related to the tanker spill. During the current assessment staining inconsistent with the other locations related to the tanker spill was observed in the 10 and 15 feet bgs soil samples collected from this location. Consequently, an additional sample was then collected from 20 feet bgs. This sample had an oily appearance with heavy staining

Based the unique character of the stained samples in SV-7 and the location of the boring at an elevation higher than the elevation of the tanker spill/fire, it is Converse's opinion that the constituents reported in the soil at this location is not from the tanker spill/fire...

- The elevated TPHg and VOC concentrations reported in the soil gas in borings SV1, SV8 and SV14 and to a lesser extent in SV12 SV13 and SV15 with the low to non detect corresponding soil sample concentrations, is consistent with soil gas vapors trapped beneath the paved surface.

CLOSURE

This report has been prepared for the exclusive use of Van Dyk Tank Lines in accordance with the terms and conditions under which these services were provided. Any reliance on this report by third parties shall be at third party's sole risk. Our services have been performed in accordance with applicable state and local ordinances, and generally accepted practices in the geosciences. No other warranty, either expressed or implied, is made.

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Data derived through sampling and analytical testing are extrapolated by geoscientists who then render an opinion about overall subsurface conditions. Actual conditions in



Data derived through sampling and analytical testing are extrapolated by geoscientists who then render an opinion about overall subsurface conditions. Actual conditions in the areas not sampled may differ from the predictions. This report should not be regarded as a guarantee that no further contamination, beyond that which was detected in our investigation, is present beneath the site. In the event that changes to the site occur, or additional, relevant information about the site is brought to our attention, the recommendations contained in this report may not be valid unless these changes and additional relevant information are reviewed and the recommendations of this report are modified in writing.

If you have questions relative to the findings presented herein, please call William Ragsdale at (909) 796-0544 or Stanley White at (714) 444-9660.

CONVERSE CONSULTANTS



William Ragsdale, REA
Project Environmental Scientist

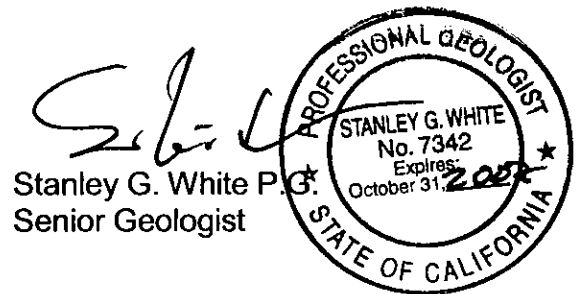


Norman S. Eke
Managing Officer

- Encl: Figure 1 – Site Location Map
Figure 2 – Boring Location Map
Table 1 – Soil Gas Analytical Results
Table 2 – Soil Analytical Results
Appendix A – Boring Logs
Appendix B – Geophysical Report
Appendix C – Laboratory Analytical Reports

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**Soil Gas and Soil
Analytical Results**

Tables

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TABLE 1
SOIL GAS ANALYTICAL RESULTS
Qualcom Stadium

San Diego, California
Converse Project No. 05-16-255-02

Sample Identification	Soil Sample Depth (feet below ground surface)	Date Sampled	EPA Method 8260 VOC's (ug/L)												
			Benzene	Ethyl benzene	Isopropylbenzene	n-propylbenzene	n-butyl benzene	Toluene	Xylene	MTBE	TCE	1,3,5 tri methyl benzene	1,2,4 tri methyl benzene	TPH gasoline	All Other Target Compounds (ug/L)
SV1-3 (1P)	3	2/8/06 -	430.00	1.50	ND	ND	ND	750.00	8.80	ND	ND	ND	ND	21,000.00	ND
SV1-3 (3P)	3	2/8/06 -	420.00	ND	ND	ND	ND	740.00	ND	ND	ND	ND	ND	21,000.00	ND
SV1-3 (7P)	3	2/8/06 -	510.00	ND	ND	ND	ND	950.00	120.00	ND	ND	ND	ND	24,000.00	ND
SV1-5	5	2/8/06 -	46.00	8.30	ND	ND	ND	72.00	ND	ND	ND	ND	ND	4,500.00	ND
SV2-3	3	2/8/06 -	ND	0.17	ND	ND	ND	2.10	ND	ND	ND	ND	ND	670.00	ND
SV2-5	5	2/8/06 -	32.00	ND	ND	ND	ND	0.24	ND	0.31	ND	ND	ND	ND	ND
SV3-3	3	2/8/06 -	ND	ND	ND	ND	ND	0.47	ND	ND	ND	ND	ND	14.00	ND
SV3-5	5	2/8/06 -	0.29	ND	ND	ND	ND	0.29	ND	ND	ND	ND	ND	ND	ND
SV4-3	3	2/8/06 -	ND	ND	ND	ND	ND	0.93	ND	ND	ND	ND	ND	370.00	ND
SV4-5	5	2/8/06 -	0.0067	ND	ND	ND	ND	0.41	ND	ND	ND	ND	ND	35.00	ND
SV5-3	3	2/8/06 -	ND	ND	ND	ND	ND	0.25	ND	ND	ND	ND	ND	20.00	ND
SV5-5	5	2/8/06 -	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17.00	ND
SV6-3	3	2/8/06 -	ND	ND	ND	ND	1.40	0.26	ND	ND	ND	ND	ND	73.00	ND
SV6-5	5	2/8/06 -	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SV6-5 DUP	5	2/8/06 -	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SV7-3	3	2/8/06 -	0.46	1.10	ND	ND	ND	15.00	5.10	ND	0.082	ND	ND	44.00	ND
SV7-5	5	2/8/06 -	ND	ND	ND	ND	ND	2.20	ND	ND	0.088	ND	ND	26.00	ND
SV8-3	3	2/8/06 -	210.00	ND	ND	ND	ND	1,500.00	ND	ND	ND	ND	ND	14,000.00	ND
SV8-5	5	2/8/06 -	790.00	ND	ND	ND	ND	580.00	ND	ND	ND	ND	ND	18,000.00	ND
SV8-5 DUP	5	2/8/06 -	380.00	ND	ND	ND	ND	210.00	ND	ND	ND	ND	ND	20,000.00	ND
SV8-10	10	2/8/06 -	440.00	91.00	ND	ND	ND	700.00	280.00	ND	ND	ND	ND	15,000.00	ND
SV9-3	3	2/8/06 -	ND	ND	ND	ND	ND	0.32	ND	ND	ND	ND	ND	ND	ND
SV9-5	5	2/8/06 -	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SV10-3	3	2/8/06 -	ND	ND	ND	ND	0.58	1.20	0.21	ND	0.17	ND	ND	1,100.00	ND
California Human Health Screening Levels (CHHSLs) Residential at 5 feet			0.0362	NA	NA	NA	NA	135.00	315.00 *	4.00	0.528	NA	NA	NA	NA
California Human Health Screening Levels (CHHSLs) Commercial/Industrial at 5 feet			0.122	NA	NA	NA	NA	378.00	879.00 *	13.40	1.77	NA	NA	NA	NA
Practical Quantitation Limits (PQL)			0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	20.00	NA

ug/L = micrograms per Liter
 ND = Non Detect above PQL
 NA = Not Applicable/Not Analyzed
 DUP - Duplicate Sample

* The representative value for mixed xylenes is based in the calculated lowest one among the three isomers

TABLE 1
SOIL GAS ANALYTICAL RESULTS

Qualcom Stadium

San Diego, California
Converse Project No. 05-16-255-01

Sample Identification	Soil Sample Depth (feet below ground surface)	Date Sampled	EPA Method 8260 VOC's (ug/L)												
			Benzene	Ethyl benzene	Isopropyl benzene	n-propyl benzene	n-butyl benzene	Toluene	Xylene	MTBE	TCE	1,3,5 tri methyl benzene	1,2,4 tri methyl benzene	TPH gasoline	All Other Target Compounds (ug/L)
SV10-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	6.40	ND	ND	ND	ND	2,900.00	ND	
SV11-3	3	2/8/06 - 2/10/06	2.40	6.60	ND	ND	ND	34.00	46.00	ND	ND	3.70	2.40	ND	ND
SV11-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SV12-3	3	2/8/06 - 2/10/06	0.014	0.38	ND	ND	ND	3.70	6.20	ND	ND	0.45	0.77	49.00	ND
SV12-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	2.10	0.48	ND	ND	ND	ND	ND	ND
SV12-5 DUP	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	0.12	ND	ND	ND	ND	ND	ND	ND
SV13-3	3	2/8/06 - 2/10/06	24.00	27.00	0.09	2.20	ND	260.00	250.00	ND	ND	3.40	26.00	1,900.00	ND
SV13-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	190.00	130.00	ND	ND	ND	ND	1,800.00	ND
SV14-3	3	2/8/06 - 2/10/06	97.00	38.00	ND	ND	ND	470.00	160.00	ND	ND	ND	ND	6,100.00	ND
SV14-5	5	2/8/06 - 2/10/06	33.00	ND	ND	ND	ND	85.00	ND	ND	ND	ND	ND	13,000.00	ND
SV15-3	3	2/8/06 - 2/10/06	0.23	ND	ND	ND	ND	35.00	11.00	ND	ND	ND	ND	17,000.00	ND
SV15-5	5	2/8/06 - 2/10/06	0.15	0.23	ND	ND	ND	3.00	6.20	ND	ND	0.24	ND	22.00	ND
SV16-3	3	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SV16-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SV17-3	3	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	0.74	ND	ND	ND	ND	ND	ND	ND
SV17-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	0.38	ND	ND	ND	ND	ND	ND	ND
SV18-3	3	2/8/06 - 2/10/06	ND	0.09	ND	ND	ND	2.20	1.10	ND	ND	ND	ND	ND	ND
SV18-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	1.20	0.10	ND	ND	ND	ND	ND	ND
SV18-5 DUP	5	2/8/06 - 2/10/06	ND	0.08	ND	ND	ND	2.40	0.75	ND	ND	ND	ND	ND	ND
SV19-3	3	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	0.37	0.44	ND	ND	ND	ND	ND	ND
SV19-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	0.32	ND	ND	ND	ND	ND	ND	ND
SV20-3	3	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SV20-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	1.10	1.20	ND	ND	ND	ND	ND	ND	ND
SV21-3	3	2/8/06 - 2/10/06	ND	ND	ND	ND	2.00	ND	ND	ND	ND	ND	ND	89.00	ND
SV21-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	220.00	ND
SV22-3	3	2/8/06 - 2/10/06	ND	ND	ND	ND	1.00	0.047	ND	ND	ND	ND	ND	78.00	ND
SV22-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
California Human Health Screening Levels (CHHSLs) Residential at 5 feet			0.0362	NA	NA	NA	NA	135.00	315.00 *	4.00	0.528	NA	NA	NA	NA
California Human Health Screening Levels (CHHSLs) Commercial/Industrial at 5 feet			0.122	NA	NA	NA	NA	378.00	879.00 *	13.40	1.77	NA	NA	NA	NA
Practical Quantttation Limits (PQL)			0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	20.00	NA

ug/L = micrograms per Liter
 ND = Non Detect above the PQL
 NA = Not Applicable/Not Analyzed
 DUP - Duplicate Sample

47 w/o DUPs

TABLE 2
SOIL ANALYTICAL RESULTS
Qualcom Stadium

San Diego, California
Converse Project No. 05-16-255-02

Sample Identification	Soil Sample Depth (feet below ground surface)	Date Sampled	EPA Method 8260 Volatile Organic Compounds (ug/Kg)								8015 Carbon Chain (mg/Kg)			8015M (mg/Kg)	
			Benzene	Ethyl benzene	Toluene	Xylene	1,2,4, trimethylbenzene	1,3,5 trimethylbenzene	n-propylbenzene	MTBE	TBA	C06-C10	C10-C22	C22-C36	TPH gasoline
SV8-2	2	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
SV8-5	5	2/8/06 - 2/10/06	ND	ND	19.00	6.80	ND	ND	ND	ND	ND	NA	NA	NA	ND
SV8-10	10	2/8/06 - 2/10/06	ND	22	76.00	131.0	30.0	13	5.2	ND	ND	NA	NA	NA	ND
SV8-15	15	2/8/06 - 2/10/06	ND	ND	5.8	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
SV7-2	2	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
SV7-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
SV7-10	10	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
SV7-15	15	2/8/06 - 2/10/06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP1-20	20	2/8/06 - 2/10/06	22.00	5.20	ND	12.00	ND	ND	ND	ND	ND	6.20	ND	3.00	ND
GP1-2	2	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
GP1-5	5	2/8/06 - 2/10/06	ND	ND	ND	38.00	8.80	5.30	ND	ND	ND	NA	NA	NA	ND
GP1-10	10	2/8/06 - 2/10/06	ND	ND	10.00	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
GP1-15	15	2/8/06 - 2/10/06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP2-2	2	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
GP2-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
GP2-10	10	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
GP2-15	15	2/8/06 - 2/10/06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GP3-2	2	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	62.00	NA	NA	NA	ND
GP3-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
GP3-10	10	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
GP4-2	2	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
GP4-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
GP5-2	2	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
GP5-5	5	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
GP5-10	10	2/8/06 - 2/10/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	ND
GP5-15	15	2/8/06 - 2/10/06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Preliminary Remediation Goals (residential) PRGr			640.00	400,000.00	520,000.00	270,000.00	52,000.00	21,000.00	240,000.00	32,000.00	NA	NA	NA	NA	NA
Preliminary Remediation Goals (industrial) PRGI			1,400.00	400,000.00	520,000.00	420,000.00	170,000.00	70,000.00	240,000.00	70,000.00	NA	NA	NA	NA	NA
Detection Limits for Reporting purposes (DLR)			5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	3.00	3.00	5.00	3.00

ug/Kg = micrograms per Kilogram
mg/Kg = milligrams per Kilogram
ND = Non Detect above DLR
NA = Not Applicable/Not Analyzed

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Boring Logs

Appendix A

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Log of Boring No. GP1

Dates Drilled: 2/10/2006 Logged by: MVF Checked By: MVF
 Equipment: _____ Driving Weight and Drop: N/A
 Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES		BLOWS	MOISTURE (%)	DRY UNIT WT. (pcf)	PID (ppm)
			DRIVE	BULK				
5		SILTY SAND (SM): yellow-brown, very fine grained sand with minor coarse grained sand, gravel and rocks, angular to sub-round, slightly moist. SILTY SAND (SM): dark blackish brown, very fine grained sand abundant biotite, slightly moist.	X					0.0
10		SILTY CLAY (CL): dark gray, soft, moderately plastic, very fine grained sand with trace medium grained sand, abundant biotite, moderately moist.	X					0.0
15		SANDY CLAY (CL): brownish gray, clay similar to above with fine to medium grained sand, moderately sorted.	X					0.0
		TOTAL DEPTH OF BORING 15 FEET.						



Converse Consultants

Project Name
 VAN DYKE
 QUALCOMM STADIUM
 SAN DIEGO, CA

Project No.
 05-16-255-02

Drawing No.
 GP1

Log of Boring No. GP2

Dates Drilled: 2/10/2006 Logged by: MVF Checked By: MVF
 Equipment: _____ Driving Weight and Drop: N/A
 Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES		BLOWS	MOISTURE (%)	DRY UNIT WT. (pcf)	PID (ppm)
			DRIVE	BULK				
5		<p>SILTY SAND (SM): yellow-brown, predominantly very fine grained sand and silt, abundant gravel and rock fragments, very angular to sub-round.</p> <p>SILTY SAND (SM): multi colored, similar to above with increased gravel and rock chips, very angular to sub-round, igneous (possible volcanic) and sedimentary clasts.</p>	X					22
10	[Hatched Box]	<p>SILTY CLAY (CL): dark gray, soft, moderately plastic, slightly moist, abundant biotite.</p>	X					0.0
15		<p>SANDY SILT (ML): olive brown, very fine grained sand and minor clay, abundant biotite, very soft to loose, slightly moist.</p> <p>TOTAL DEPTH OF BORING 15 FEET.</p>	X					0.0



Converse Consultants

Project Name
 VAN DYKE
 QUALCOMM STADIUM
 SAN DIEGO, CA

Project No.
 05-16-255-02

Drawing No.
 GP2

Log of Boring No. GP3

Dates Drilled: 2/10/2006 Logged by: MVF Checked By: MVF

Equipment: _____ Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	<p style="text-align: center;">SUMMARY OF SUBSURFACE CONDITIONS</p> <p style="font-size: small;">This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.</p>	SAMPLES		BLOWS	MOISTURE (%)	DRY UNIT WT. (pcf)	PID (ppm)
			DRIVE	BULK				
5		<p>SILTY SAND (SM): brown, very fine to fine grained sand with minor medium grained sand, very angular to sub-angular, organic material (wood and bark), moist.</p> <p>SILTY SAND (SM): gray, fine grained sand with silt and trace clay, trace organic material, well sorted, moderately moist.</p>	X					110
10		<p>SILTY SAND (SM): olive brown clayey, very fine to fine grained sand with minor gravel and rock fragments, angular to sub-angular, moderately sorted, minor clay, trace organic material.</p> <p style="text-align: center;">TOTAL DEPTH OF BORING 10 FEET.</p>	X					20



Converse Consultants

Project Name
**VAN DYKE
 QUALCOMM STADIUM
 SAN DIEGO, CA**

Project No.
05-16-255-02

Drawing No.
GP3

Log of Boring No. GP4

Dates Drilled: 2/10/2006 Logged by: MVF Checked By: MVF

Equipment: _____ Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	<p style="text-align: center;">SUMMARY OF SUBSURFACE CONDITIONS</p> <p style="font-size: small;">This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.</p>	SAMPLES		BLOWS	MOISTURE (%)	DRY UNIT WT. (pcf)	PID (ppm)
			DRIVE	BULK				
5		<p>SILT AND CLAY (CL): yellow-brown silt and clay and red clay, hard and stiff clay with minor silt and sand, loose silt, minor hard and stiff red clay, minor angular rock fragments.</p> <p>SILTY SAND (SM): gray, fine grained sand with silt and trace dark brown clay, trace sub-round gravel, well sorted, moderately moist.</p> <p>-weathered sand and rock fragments, refusal encountered.</p> <p style="text-align: center;">TOTAL DEPTH OF BORING 7 FEET.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				26
			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				5



Converse Consultants

Project Name
**VAN DYKE
 QUALCOMM STADIUM
 SAN DIEGO, CA**

Project No.
05-16-255-02

Drawing No.
GP4

Log of Boring No. GP5

Dates Drilled: 2/10/2006 Logged by: MVF Checked By: MVF

Equipment: _____ Driving Weight and Drop: N/A

Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES		BLOWS	MOISTURE (%)	DRY UNIT WT. (pcf)	PID (ppm)
			DRIVE	BULK				
5		SILT (ML): dark brown, organic material.	X					22
10		SANDY CLAY (CL): olive green, very fine to medium grained sand, moderately sorted, minor sub-round rock fragments.	X					10
15		SANDY SILT (ML): dark brown, very fine grained sand, well sorted, moderately moist, significant biotite, loose.	X					0.0
15		SANDY SILT (ML): dark brown, trace clay, very fine grained sand, moist, trace organic material, significant biotite. TOTAL DEPTH OF BORING 15 FEET.	X					0.0



Converse Consultants

Project Name
VAN DYKE
QUALCOMM STADIUM
SAN DIEGO, CA

Project No.
05-16-255-02

Drawing No.
GP5

Log of Boring No. SV3

Dates Drilled: 2/9/2006 Logged by: MVF Checked By: MVF
 Equipment: _____ Driving Weight and Drop: N/A
 Ground Surface Elevation (ft): N/A Depth to Water (ft): NOT ENCOUNTERED

Depth (ft)	Graphic Log	SUMMARY OF SUBSURFACE CONDITIONS This log is part of the report prepared by Converse for this project and should be read together with the report. This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.	SAMPLES		BLOWS	MOISTURE (%)	DRY UNIT WT. (pcf)	PID (ppm)
			DRIVE	BULK				
	[Diagonal Hatching]	CLAYEY SAND (SC): pink and green, insitu weathering of sedimentary rock.						
	[Diagonal Hatching]	SANDY CLAY (CL): olive, fine to medium grained sand and rock fragments in clayey matrix, round to sub-angular.						
5	[Diagonal Hatching]	CLAY (CH): black, moderately soft, plastic.						
	[Diagonal Hatching]	SILTY SAND (SM): medium brown, very fine to fine grained sand, well sorted.						
	[Diagonal Hatching]	SILTY SAND (SM): dark brown, very fine to medium grained sand, poorly sorted, moist.						
10	[Diagonal Hatching]	SANDY CLAY (CL): green and brown, angular to sub-round sand and rock fragments in clayey matrix, insitu weathering, soft, moist, sticky.						
		TOTAL DEPTH OF BORING 10 FEET.						



Converse Consultants

Project Name
**VAN DYKE
 QUALCOMM STADIUM
 SAN DIEGO, CA**

Project No.
05-16-255-02

Drawing No.
SV3

Geophysical Report

Appendix B

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**SubSurface Surveys & Associates,
Inc. An Applied Geophysical Company**

215 S. Hwy 101, Suite 203
Solana Beach, CA 92075

Office: (858) 481-8949
Fax: (858) 481-8998

February 24, 2006

Converse Consultants
222 E. Huntington Dr., Suite 211
Monrovia, CA 91016

Project / Invoice Number: 06-053

Attn: **Mr. William Ragsdale**

Re: Geophysical Investigation at Main Entrance to Qualcomm Stadium, San Diego, California

This brief letter report is to present the findings of our geophysical survey conducted over an area measuring approximately 325' X 200' near the main entrance to Qualcomm Stadium located in San Diego, California (Fig. 1) on February 8th, 2006. Based on information supplied by the client, the site was impacted by a fuel tanker truck having rolled-over while negotiating a sharp turn at the main gate to the stadium on December 7th, 2005. The subsequent spill, and fire, released an undetermined amount of fuel into the local area. The purpose of the geophysical investigation was to locate and delineate all detectable utility lines and any other potential subsurface anomalies that could impact the planned soil sampling activities planned by Converse Consultants.

At any given site the situation, geologic and cultural, may be such that one or more of the instruments may record excessive "noise", the ground may not provide sufficient contrasts, or there may be overlapping anomalies, for a given instrument to be effective. Summarily stated, there are generally instrumental limits and interpretational impediments.

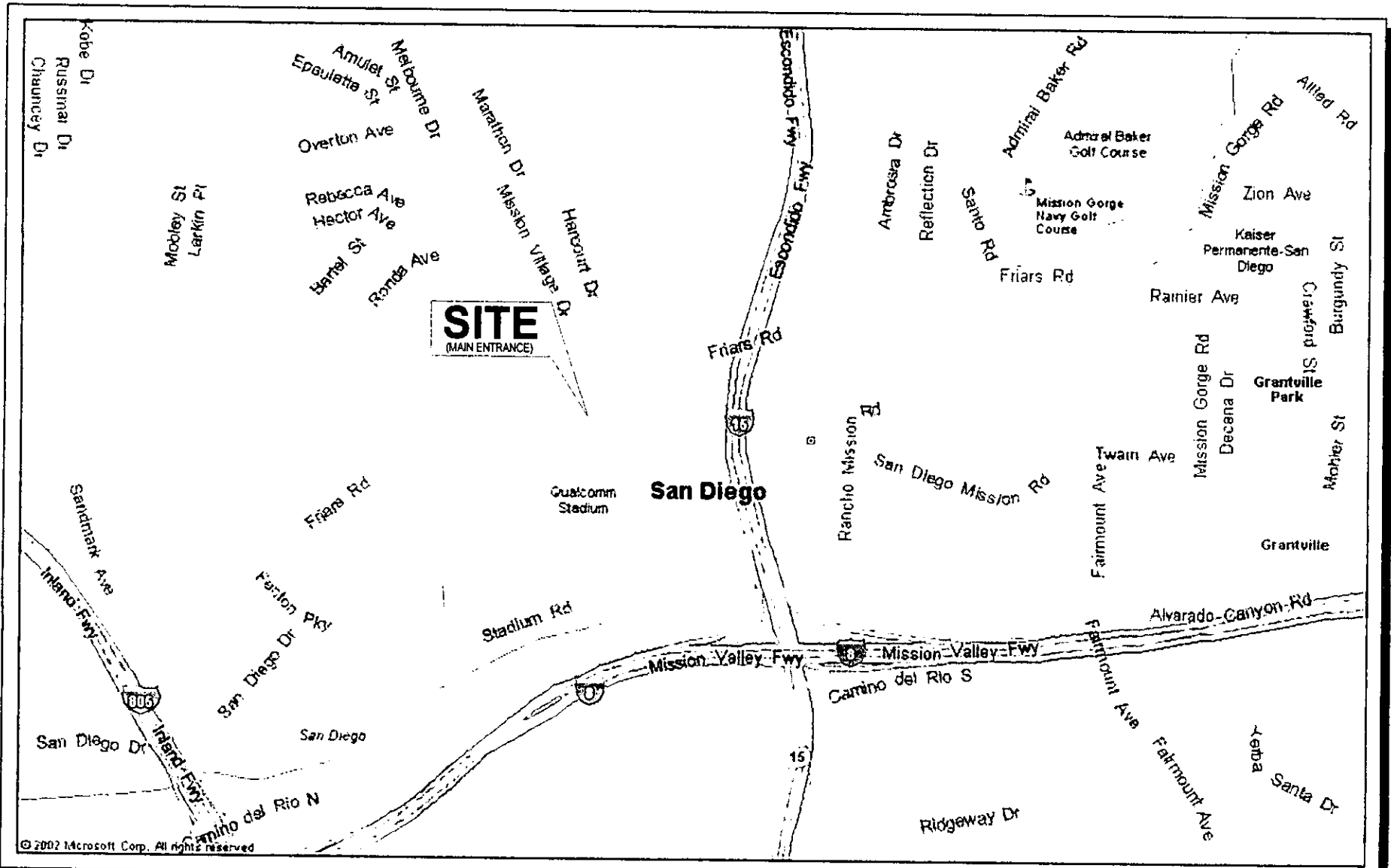
Survey Design – The fuel tanker truck was attempting a left turn onto San Diego Mission Road from the south bound direction of Mission Village Drive when the roll-over occurred, spilling fuel onto the intersection and downhill into the stadium property. Utility location operations cover an area measuring 325-feet east of the intersection along San Diego Mission Road and include a 200-foot portion of the stadium parking lot to the south of San Diego Mission Road.

Ground penetrating radar (GPR) traverses were conducted randomly along and perpendicular to all roadways and driveways encountered during this geophysical survey. Additionally, all geophysical instruments were utilized to detail the route(s) of any riser accessible to the survey crew.

A Sensors & Software Noggin Ground Penetrating Radar unit produced the radar images, a Geonics model EM-61 instrument was used for EM sampling, and the magnetic gradiometer was a Schonstedt, model GA-52C. The utility line tracer was a multi-frequency instrument made by Metrotech, Inc.



SITE LOCATION MAP



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FIGURE 1

Brief Description of the Geophysical Methods Applied – The EM-61 instrument is a high resolution, time-domain device for detecting buried conductive objects. It consists of a powerful transmitter that generates a pulsed primary magnetic field when its coils are energized, which induces eddy currents in nearby conductive objects. The decay of the eddy currents, following the input pulse, is measured by the coils, which in turn serve as receiver coils. The decay rate is measured for two coils, mounted concentrically, one above the other. By making the measurements at a relatively long time interval (measured in milliseconds) after termination of the primary pulse, the response is nearly independent of the electrical conductivity of the ground. Thus, the instrument is a super-sensitive metal detector. Due to its unique coil arrangement, the response curve is a single well-defined positive peak directly over a buried conductive object. This facilitates quick and accurate location of targets. Conductive objects, to a depth of approximately 11 feet can be detected.

The magnetic gradiometer has two fluxgate magnetic fixed sensors that are passed closely to and over the ground. When not in close proximity to a magnetic object, that is, only in the earth's field, the instrument emits a sound signal at a low frequency. When the instrument passes over a buried iron or steel object, so that the field is significantly different at the two sensors, and locally magnetic gradient, the frequency of the emitted sound increases. Frequency is a function of the gradient between the two sensors.

Where risers are present, the utility locator transmitter can be connected to the object, and a current with a sharp frequency, 82 KHz & 96 KHz in this instance, is impressed on the conductor, pipe conduit, etc. The receiver unit is tuned to this same frequency, and it is used to trace the pipe's surface projection away from the riser.

The GPR instrument beams energy into the ground from its transducer/antenna, in the form of electromagnetic waves. A portion of this energy is reflected back to the antenna at any boundary in the subsurface across which there is an electrical contrast. The recorder continuously makes a record of the reflected energy as the antenna is traversed across the ground surface. The greater the electrical contrast, the higher the amplitude of the returned energy. The EM wave travels at a velocity unique to the material properties of the ground being investigated, and when these velocities are known, or closely estimated from ground conductivity values and other information, two-way travel times can be converted to depth.

Penetration into the ground and resolution of the GPR images produced are a function of ground electrical conductivity and dielectric constant. Images tend to be graphic, even at considerable depth, in sandy soils, but penetration and resolution may be limited in drastically more conductive clayey moist ground.

Interpretation & Conclusions - Interpretation took place in real time as the surveys progressed. Accordingly, the findings of our investigation were spray-painted (chalk spray) directly onto the asphalt surfaces outdoors along streets and parking lot surfaces. In addition, digital photographs were taken of all areas investigated during this geophysical survey. The intent of this document is to demonstrate the procedure, and report the findings of the work.

Figure 2 is the site interpretation map showing the various utilities located during the survey. The geophysical survey boundaries are shown as a solid magenta colored line around the area investigated. The utilities encountered in the survey area include electrical lines, water supply & irrigation lines, storm drain lines, a natural gas line and a communications corridor buried along the southern side of San Diego Mission Road. It should be noted that the map, supplied by Qualcomm personnel, used in Figure 2 of this report does not have a scale and is shown for reference purposes only!



SITE INTERPRETATION MAP

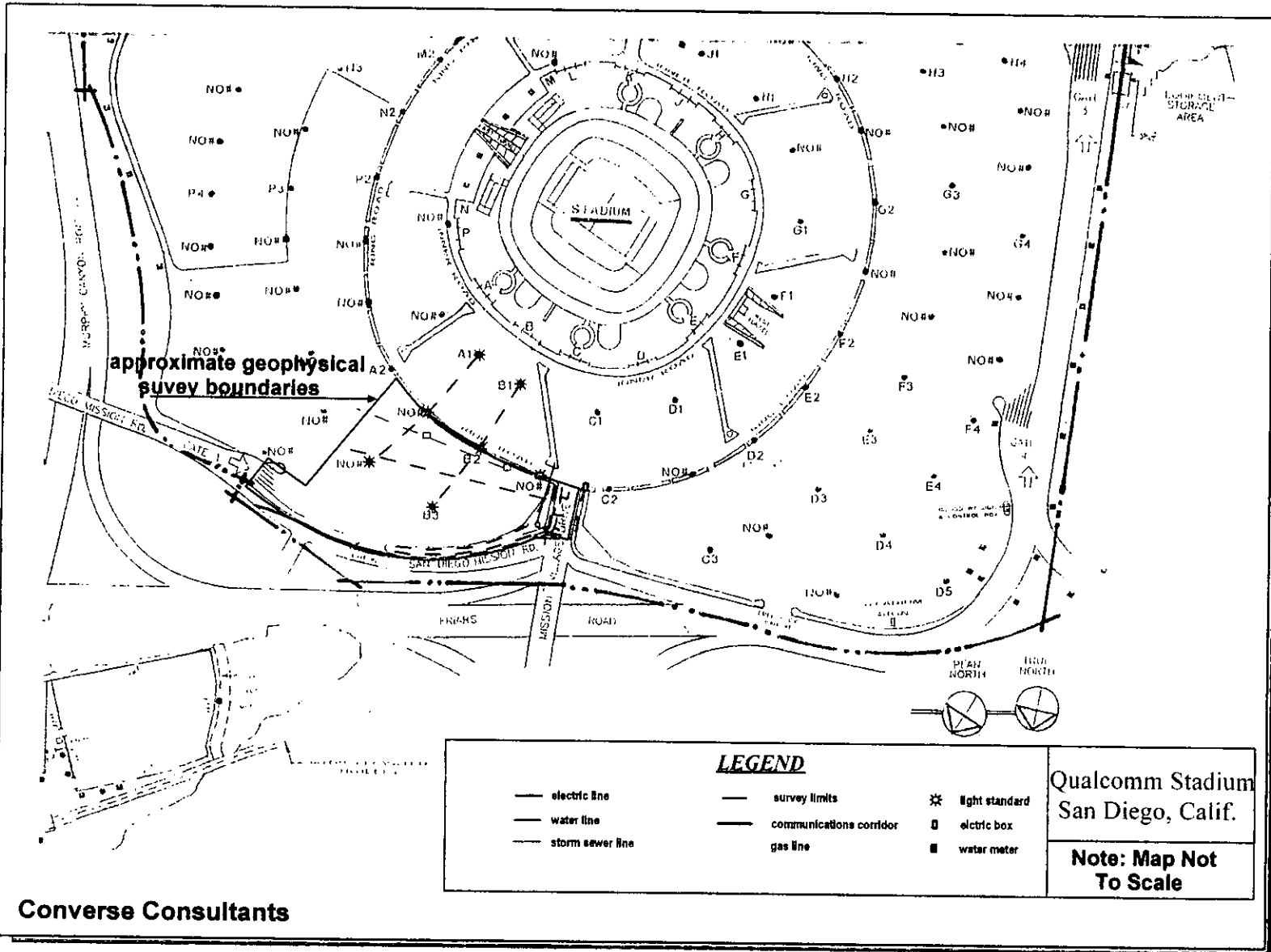


FIGURE 2

Figures 3 and 4 contain site photographs showing the various areas in which the city utilities were found. The area most impacted by utilities in a small zone is, unfortunately, the same area that was most impacted by the fuel spill, namely the planter located to the southeast of the intersection. Figure 3 is dedicated to this area which will be sampled rather heavily.

Referring to the two (2) topmost photographs in Figure 3, there is a large water (main?) coming towards the planter area from the asphalt covered parking area to the east. This is also mapped within Figure 2. The water pipeline trench is quite broad (approximately 8-feet) which indicates that the pipeline is likely to be a main supply. The GPR could not penetrate well into the trench; therefore, the actual outside diameter of the pipeline could not be ascertained during the geophysical survey. The lack of radar penetration is likely due to the highly conductive host material (soil) which is believed to be the "Stadium Conglomerate".

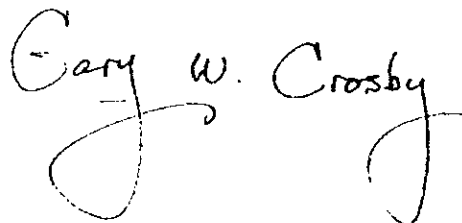
Figure 4 shows the various other utilities found within the geophysical survey area(s).

Subsurface Survey's professional personnel are trained and experienced and have completed thousands of projects since the company's inception in 1988. It is our policy to work diligently to bring this training and experience to bear to acquire quality data sets, which in turn, can provide clues useful in formulating our interpretations. Still, non-uniqueness of interpretations, methodological limitations, and non-target interferences are prevailing problems. Subsurface Surveys makes no guarantee either expressed or implied regarding the accuracy of the interpretations presented. And, in no event will Subsurface Surveys be liable for any direct, indirect, special, incidental, or consequential damages resulting from data sets, interpretations and opinions presented herewith.

All data generated on this project are in confidential file in this office, and are available for review by authorized persons at any time. The opportunity to participate in this investigation is very much appreciated. Please call, if there are questions.



Leopold "Pol" Mairesse
V.P., Sr. Geophysicist



Gary W. Crosby, PhD, GP960
Chief Geophysicist



SITE PHOTOGRAPHS

Qualcomm Stadium, San Diego, California

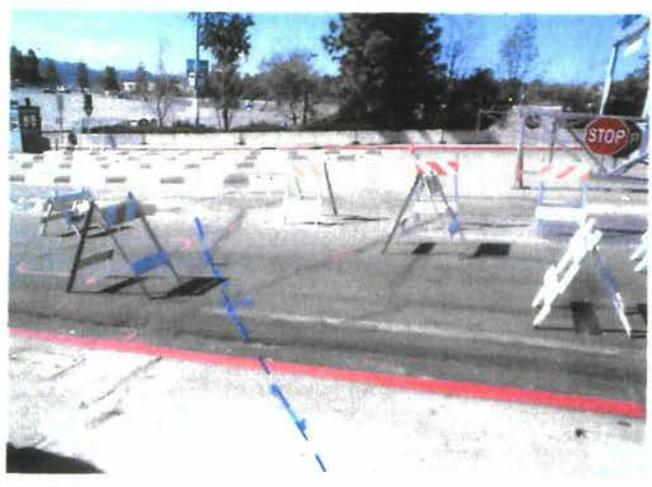


FIGURE 3



SITE PHOTOGRAPHS

Qualcomm Stadium, San Diego, California

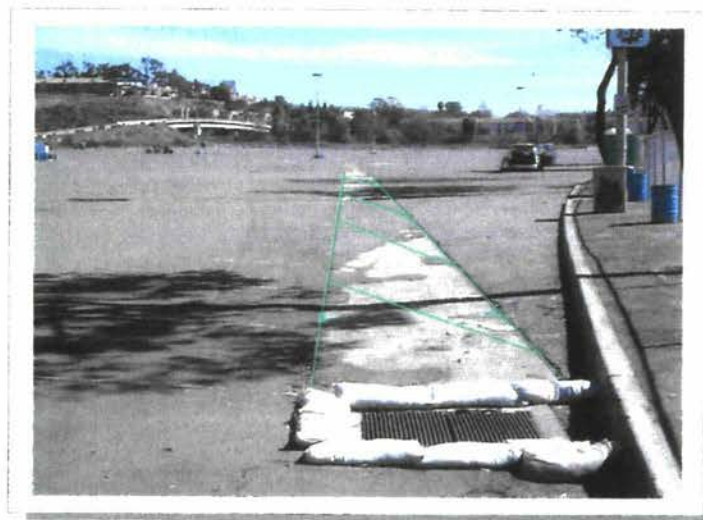


FIGURE 4

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Appendix B-2

Subsurface Assessment Report – Qualcomm Stadium Parking Lot, SCS Engineers, December 20, 2013

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Subsurface Assessment Report

Qualcomm Stadium Parking Lot 9449 Friars Road San Diego, California

**DEH VAP Case Number: DEH2013-LSAM-000173
Global ID Number: T10000004719**

Presented to:

Ms. Colleen Hines
Department of Environmental Health
County of San Diego
P.O. Box 129261
San Diego, California 92112-9261

Presented by:

SCS ENGINEERS
8799 Balboa Avenue, Suite 290
San Diego, California 92123
(858) 571-5500

December 20, 2013
Project No. 01213137.00

Offices Nationwide
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December 20, 2013
Project No. 01212137.00

Ms. Colleen Hines
Department of Environmental Health
Site Assessment and Mitigation Program
County of San Diego
P.O. Box 129261
San Diego, California 92112-9261

Subject: Subsurface Assessment Report (Report)

DEH Case Number: DEH2013-LSAM-000173

Site: Qualcomm Stadium Parking Lot
9449 Friars Road
San Diego, California 92108

Dear Ms. Hines:

SCS Engineers (SCS) is pleased to present this Report for a soil and groundwater assessment conducted pursuant to the requirements of the County of San Diego, Department of Environmental Health (DEH). This Report was prepared in accordance with the approved Subsurface Assessment Workplan dated June 14, 2013, guidelines set forth by the DEH, and in accordance with Exhibit 00 to the contract between SCS and NRC Environmental Services, Inc.

Should you have any questions regarding this Report, please do not hesitate to call the undersigned at (858) 571-5500.

Sincerely,



Keith L. Etchells, PG 8028, CHg 981
Senior Project Geologist
SCS ENGINEERS



Chuck Pryatel, MBA, REHS
Vice President
SCS ENGINEERS

Enclosures
KLE

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1 BACKGROUND AND DISCUSSION

On April 7, 2013, a spill took place at the intersection of Mission Village Drive and San Diego Mission Road, in San Diego, California, from a tanker truck owned and operated by Apex Tank Lines, Inc. (Apex) containing approximately 8,000 gallons of ethanol with trace quantities of gasoline-range total petroleum hydrocarbons¹ (Figures 1 and 2). This intersection borders the northern entrance to the Qualcomm Stadium parking lot (southeastern corner of the intersection of San Diego Mission Road and Mission Village Drive). The tanker was reportedly carrying approximately 8,000 gallons of ethanol and approximately 4,500 gallons were recovered by the emergency response and environmental consulting firm, NRC Environmental Services, Inc. (NRC or Client), contracted by Apex after San Diego Fire-Rescue Department and County of San Diego Department of Environmental Health (DEH) emergency response personnel cleared the area for spill response procedures to begin. Approximately 3,500 gallons of spilled ethanol were unrecovered subsequent to the spill recovery procedures. The unrecovered, liquid ethanol infiltrated portions of damaged surface pavement, evaporated into the atmosphere, potentially impacted existing remediation and monitoring wells, and potentially impacted shallow soils beneath compromised portions of the affected storm drain at the Site.

NRC prepared a *Spill Report for APEX Tank Lines, Inc.*, dated April 7, 2013, detailing their spill response procedures including some minimal subsurface sampling via four borings (Core Samples 1 through 4) (Figures 2 and 4) and video inspection footage of the affected storm drain. Two areas of concern affected by the spill are identified in the Spill Report, referred to herein as Area A (Figures 2 and 3) and Area B (Figure 4). Area A is comprised of the location of the tanker truck spill and the area of the stadium parking shown in Figure 2 where ethanol flowed south along the curb of Mission Village Drive through the main stadium entrance gate and eventually pooled along a parking lot median. Area B is comprised of a portion of the stadium parking lot bordered by San Diego Mission Road and the entrance to the adjacent Kinder Morgan Tank Farm (Figure 4).

The following table summarizes the reported analytical results² for sorbed-phase ethanol in Core Samples 1 through 4, which were collected at 0.5 feet below grade (fbg).

Sample Designation	Ethanol (mg/kg)
Core Sample 1	210
Core Sample 2	3,500
Core Sample 3	830
Core Sample 4	7,800

Note: mg/kg = milligrams per kilogram

On May 9, 2013, Mr. Kevin Heaton and Ms. Colleen Hines of the DEH as well as SCS Engineers (SCS) and NRC staff performed a Site visit (Site Visit) to observe and discuss areas of concern associated with the spill. A Subsurface Assessment Workplan (Workplan) dated June

¹ The tanker of ethanol was listed as containing trace quantities of gasoline because the tanker had previously carried gasoline and was not rinsed prior to being filled with ethanol.

² Analytical methods U.S. Environmental Protection Agency (EPA) Method 8260B and EPA Method 8015B were utilized to obtain ethanol analytical results from the Core Samples. Reported laboratory analytical results for EPA Method 8260B are considered more representative of sorbed-phase ethanol and as such will be referred to herein.

14, 2013, was prepared for the DEH documenting the proposed methods of assessing impacts to shallow soil and groundwater at the Site. The Workplan was approved by the DEH in a letter dated August 2, 2013 (Appendix A).

2 OBJECTIVE

The objective of the scope of services was to further assess the concentrations of residual sorbed- and dissolved-phase ethanol in areas of the Site affected by the spill.

3 METHODS

PREPARATION FOR FIELD WORK

Site Health and Safety Plan

A Site health and safety plan (Plan) was required for the work conducted at the Site by workers within the exclusion zone pursuant to the regulations in 29 Code of Federal Regulations Part 1910.120 and Title 8 California Code of Regulations Section 5192. The Plan outlined the potential chemical and physical hazards that could have been encountered during the drilling and sampling activities, to guide safe execution of the fieldwork activities. The appropriate personal protective equipment and emergency response procedures for the Site-specific chemical and physical hazards were detailed in this Plan. All field personnel involved with the field work were required to read and sign the document in order to encourage proper health and safety practices.

Utility Search and Markout

Prior to drilling, Underground Service Alert was contacted to minimize the likelihood of drilling into an underground utility. SCS also contracted with a private underground utility location company to attempt to locate subsurface utilities and improvements at the Site to minimize the likelihood of drilling into an underground utility. No subsurface utilities were reported or detected in the immediate vicinity of any of the boring locations.

Project Management, Subcontractor Management, and Scheduling

Prior to mobilizing for field work, SCS notified and scheduled the subcontractors including, but not limited to, the laboratory, the drilling company, and the utility location contractor. In addition, SCS coordinated with NRC, Arcadis U.S., Inc. (Arcadis) on behalf of SFPP L.P. (an operating partnership of Kinder Morgan Energy Partners, L.P. [Kinder Morgan]) regarding the existing unauthorized release case at the Site (Geotracker Global Identification Number SL607392800), and City of San Diego staff to ensure appropriate scheduling of field work.

SOIL SAMPLING

Because the half-life of ethanol in soil and groundwater is relatively short (less than 10 days), soil sampling was completed in the immediate vicinity of Core Samples 1 through 4 to verify degradation of sorbed-phase ethanol. The soil sampling activities were also intended to characterize subsurface ethanol impacts in the vicinity of the affected portions of the storm drain. Please refer to Figures 2 through 4 for Site maps showing the locations of the soil borings

advanced to collect soil samples in the immediate vicinity of Core Samples 1 through 4 and adjacent to portions of the affected storm drain observed or suspected to be damaged.

Advancement of Direct-Push Soil Boring

Thirteen soil borings (SB1 through SB13) were advanced, logged, and sampled at the Site by SCS on September 24, 2013 (Figures 2 through 4). Soil borings SB1 through SB4 were advanced within the immediate vicinity of each one of the four soil borings completed by NRC (Core Samples 1 through 4) and nine soil borings were advanced immediately adjacent to observed or suspected breaches in the affected portions of the storm drain. The following table summarizes the placement rationales for soil borings SB1 through SB13. The rationales include observed distances east of storm drain catch basin (catch basin) 1 which is where the storm drain video inspection began. A graphical depiction of the storm drain assessment boring locations is provided (Figure 4).

Soil Boring	Rationale
SB1	Assess decomposition of ethanol concentrations at Core Sample 1 location
SB2	Assess decomposition of ethanol concentrations at Core Sample 2 location
SB3	Assess decomposition of ethanol concentrations at Core Sample 3 location
SB4	Assess decomposition of ethanol concentrations at Core Sample 4 location
SB5	Damage to storm drain observed 30 feet from catch basin 1 (CB1)
SB6	Damage to storm drain observed 112 feet from CB1
SB7	Damage to storm drain observed 151 feet from CB1
SB8	Damage to storm drain observed 185 feet from CB1
SB9	Assess potential infiltration in CB4
SB10	Assess potential infiltration in CB5
SB11	Assess potential infiltration in CB3
SB12	Assess potential infiltration in CB6
SB13	Assess potential infiltration in CB7

Notes:

CB = catch basin

The selection of the boring locations was designed to provide analytical data to further assess the extent and attenuation of residual ethanol at the areas of concern. The soil borings were advanced with a hydraulically powered, truck-mounted, direct-push drill rig. A state of California-licensed Certified Hydrogeologist was on-Site to observe the drilling activity and describe collected soil samples in general accordance with the Unified Soil Classification System. Please refer to Appendix B for the soil boring logs.

During the advancement of each soil boring, soil samples were continuously collected to the maximum depth achieved by the soil boring, but not to exceed 10 feet below grade, for geological interpretation, flame-ionization detector (FID) screening³, and soil sample interval selection. Soil sample collection began at 4 fbg in borings SB5 through SB13 as the bottom of the adjacent storm drain is constructed up to 36 inches below grade. In an attempt to provide an

³ An FID was used for screening due to the physical properties of ethanol. Ethanol's ionization potential (10.47 electron volts [ev]) is close to that of a typical lamp (10.6 ev) found in photoionization detectors (PID), resulting in it being a low-response compound to PID screening instruments (isobutylene Correction Factor (CF) of 10 using a 10.6ev lamp and 3.1 using a 11.7ev lamp).

analytical comparison to Core Samples 1 through 4, as well as assess vertical extent, soil samples were analyzed at depths of 0.5, 1, 5, and 10 fbg from borings SB1 through SB4. In an attempt to identify the presence of ethanol impacts to shallow soil adjacent to and under compromised portions of the storm drain and catch basins, as well as provide vertical control, soil samples were analyzed at depths of 4, 5, 6, and 8 fbg from borings SB5 through SB13.

Soil samples were collected with a split-spoon-type sampler and driven into acetate sleeves. The two ends of the soil sample sleeves were covered with Teflon sheeting, sealed with plastic end caps, labeled, and submitted to an on-Site, state-accredited mobile laboratory for analysis. Chain-of-custody procedures were implemented for sample tracking.

As required by San Diego County guidelines, the drive rods were decontaminated on-Site between soil borings to minimize the likelihood of cross-contaminating the boring and to minimize the potential for a false positive in the samples selected for laboratory analysis.

Soil Sample Analysis

All selected soil samples were submitted to a state-accredited mobile laboratory⁴ for analysis. The samples were analyzed for ethanol, and benzene, toluene, ethylbenzene, and xylenes (BTEX) in accordance with EPA Method 8260B.

4 FINDINGS

SOIL SAMPLE ANALYTICAL RESULTS

Ethanol concentrations above the laboratory reporting limit (500 micrograms per kilogram [$\mu\text{g}/\text{kg}$]) were only reported for the samples collected from SB3 and SB4 at depths equal to or shallower than 1 fbg. Reported ethanol concentrations ranged from below the reporting limit to 63,000 $\mu\text{g}/\text{kg}$ in sample SB4-0.5'. Ethanol was reported at concentrations below the laboratory reporting limit for all soil samples collected adjacent to the storm drain (SB5 through SB13).

SORBED-PHASE ETHANOL DEGRADATION

Using the following equation, the observed half-life of ethanol at soil boring locations SB1 through SB4 were calculated and are tabulated in the table below.

Half-life = (elapsed time x log 2)/log (beginning amount/ending amount)

⁴ Because the mobile lab had a daily capacity of approximately 15 samples per day of operation a portion of the samples were analyzed by H&P Mobile Geochemistry's fixed based laboratory in Carlsbad, California.

Sample Designation	Collection Depth (ftbg)	Ethanol ($\mu\text{g}/\text{kg}$)	Collection Date	Calculated Half-Life (days)
Core Sample 1	0.5	210,000	4/10/2013	19.16*
SB1-0.5'		<500	9/24/2013	
Core Sample 2		3,500,000	4/10/2013	13.07*
SB2-0.5'		<500	9/24/2013	
Core Sample 3		830,000	4/10/2013	15.82
SB3-0.5'		550	9/24/2013	
Core Sample 4		7,800,000	4/10/2013	24.02
SB4-0.5'		63,000	9/24/2013	

Notes:

ftbg = feet below grade

 $\mu\text{g}/\text{kg}$ = micrograms per kilogramA concentration of 499 $\mu\text{g}/\text{kg}$ was assumed for samples with ethanol concentrations below the reporting limit.

* = Because the comparison includes a result below the laboratory detection the calculated half-life represents a maximum value.

KINDER-MORGAN GROUNDWATER SAMPLING RESULTS

The ethanol spill occurred in the vicinity of a considerably-sized known petroleum hydrocarbon and fuel oxygenate release associated with the petroleum fuel storage and transfer terminal located at 9950 and 9966 San Diego Mission Road, San Diego, California, owned by Kinder Morgan. Kinder Morgan subcontracts with Arcadis to complete their groundwater monitoring requirements.

Because Kinder Morgan currently manages and samples a monitoring well network with wells in the vicinity of the ethanol spill, groundwater analytical data associated with this monitoring program are being utilized to ascertain the impacts the ethanol spill had on the shallow groundwater at the Site.

Second Quarter 2013

Arcadis prepared the *Groundwater Monitoring and Remedial Progress Report, Second Quarter of 2013 for the Mission Valley Terminal San Diego, California* dated July 30, 2013⁵. This report documents supplemental analyses that were conducted at wells in the vicinity of the ethanol spill during the quarterly monitoring events completed in April and May 2013 (22 to 37 days after the spill). Supplemental ethanol analyses were conducted on the samples from wells RW-3A, RW-8, RW-56, RW-107, R-32AS, R-32AD, R-33AD, R-38AS, R-43AS, R-43-AS-R, R-43AD, R-44AM, R-79AM, R-85AS, and RW-8. Supplemental analyses for dissolved gases, nutrients, and water quality parameters (MNA parameters) were also selected for the samples collected from wells R-32AD, R-33AD, R-43AS-R, R-43AD, R-44AM, R-79AM, R-85AS, and RW-8.

Arcadis noted the reported detection of ethanol in one of the wells within the vicinity of the ethanol spill (R-44AM) at a concentration of 0.079 milligrams per liter (mg/L) during the second quarter of 2013. This well is located approximately 200 feet northwest of the truck accident site. Some of the spilled ethanol drained along the southern gutter of San Diego Mission Road, passing within approximately 50 feet of well RW-44AM, which is located on the northern side of

⁵ http://geotracker.waterboards.ca.gov/esi/uploads/geo_report/9261216640/SL607392800.PDF

San Diego Mission Road. Ethanol was not detected above the laboratory reporting limit in any other of the supplemental ethanol analyses.

Arcadis reported the following unusual MNA parameters values for groundwater samples collected during the second quarter of 2013 within the vicinity of the ethanol spill:

- Well R-44AM which, as noted above, had the only detection of ethanol contained an unusually elevated concentration of methane, at 610 µg/L. The highest historical methane result for this location was only 28 µg/L.
- Well R-43AD located approximately 400 feet northeast of the ethanol spill was not reported to contain ethanol above the reporting limit. However, this well did have a historically high concentration of total organic carbon (TOC) (41 mg/L), accompanied by historically low values for alkalinity (78 mg/L) and sulfate (12 mg/L). These values were reportedly a marked changed since the most recent previous MNA analyses at this location, in October 2012.
- Well R-43AS-R located approximately 400 feet northeast of the ethanol spill was not reported to contain a detectable concentration of ethanol during the 2Q2013. This well, however, did reportedly have a historically high concentration of methane in the second quarter of 2013 (3,500 µg/L). This well was reported to contain elevated concentrations of ethane (1,400 µg/L) during the previous monitoring event in the first quarter of 2013, before the spill.

Third Quarter 2013

Arcadis prepared the *Groundwater Monitoring and Remedial Progress Report, Third Quarter of 2013 for the Mission Valley Terminal San Diego, California* dated October 30, 2013⁶. This report documents supplemental ethanol and MNA analyses conducted at three proximal off-Terminal wells located near the area of the ethanol spill in July and August 2013, approximately 120 days after the spill. Unusual results for ethanol or MNA parameters were observed at these three locations during the second quarter of 2013, about 1 month after the spill. Supplemental ethanol and MNA analyses were therefore conducted again on samples collected from these locations during the third quarter of 2013, approximately 4 months after the spill.

The affected wells, R-43AS-R, R-43AD, and R-44AM, are located on the northern side of San Diego Mission Road, approximately 200 to 400 feet northeast of the truck accident site. Some of the spilled ethanol drained along the southern gutter of San Diego Mission Road, passing within approximately 50 feet of the wells.

The previously reported detection of ethanol (0.079 mg/L) in a groundwater sample collected from R-44AM during the 2Q2013 sampling event about one month after the spill was not observed in the sample collected from this well during the 3Q2013 sampling event. During the third quarter of 2013, supplemental ethanol analyses were also conducted on samples collected from wells R-43AS-R and R-43AD. Ethanol was not reported above the laboratory reporting limit in either of these samples collected during the 3Q2013 sampling event.

⁶ http://geotracker.waterboards.ca.gov/esi/uploads/geo_report/8461137294/SL607392800.PDF

Arcadis reported the following unusual MNA parameter values for groundwater samples collected from three wells within the vicinity of the ethanol spill during the third quarter of 2013:

- The historically high methane concentration (610 µg/L) reported for the sample collected from well R-44AM during the 2Q2013 sampling event was not observed in the sample collected from this well during the 3Q2013 sampling event. The reported methane concentration in the sample collected from this well during the 3Q2013 sampling event was below the laboratory reporting limit.
- The groundwater sample collected during the 2Q2013 from well R-43AD was reported to contain historically high concentrations of TOC (41 mg/L), alkalinity (78 mg/L), and sulfate (12 mg/L). The 3Q2013 sample collected from this same well was reported to contain a TOC concentration of 22 mg/L, which is higher than historical values. Reported values for alkalinity (190 mg/L) and sulfate (95 mg/L) in the sample collected from well R-43AD increased during the 3Q2013. Both of these values are reportedly lower than historical values for this well.
- As reported earlier, the 2Q2013 sample collected from well R-43AS-R had a relatively high concentration of methane (3,400 µg/L). Methane reportedly increased to 4,500 µg/L in the 3Q2013 sample collected from this well. However, the methane concentration was also unusually high (3,500 µg/L) during the first quarter of 2013, before the spill.

DISSOLVED-PHASE ETHANOL DEGRADATION

Ethanol can be degraded in both aerobic and anaerobic environments at a rate faster than other gasoline constituents (Chapelle, 1993; Malcom Pirnie, 1998). Most common aerobic bacteria can mineralize ethanol to CO₂ and H₂O through the Krebs cycle. Degradation of ethanol has a high biochemical oxygen demand and is likely to deplete available oxygen within the subsurface initially.

Subsequent to aerobic degradation processes ethanol degrades anaerobically. Ethanol is a common intermediate in the anaerobic food chain, where labile organic matter is degraded to nontoxic products such as acetate, CO₂, CH₄, and H₂ by the combined action of several different types of bacteria (White, 1995). The degradation of ethanol is also known to promote acidification as CO₂, butyric acid, propionic acid, hydrogen gas, and methane are all produced during both aerobic and anaerobic processes. Sulfate reducing bacteria anaerobically degrade ethanol into CO₂, H₂, and acetate via consumption of electron acceptors such as sulfate.

All these processes and associated chemical byproducts are a very likely explanation for all of the variations in groundwater quality in wells affected by the ethanol spill. Apparently short-lived increases in dissolved-phase methane in areas affected by the ethanol spill are likely indicative of anaerobic degradation in the capillary fringe and shallow saturated subsurface. The generation of CO₂ and hydrogen gas during degradation of ethanol would likely explain the observed increases in TOC observed in well R-43AD. Reductions in dissolved-phase sulfate observed at well R-43AD are evidence that available sulfate is being consumed as an electron acceptor during biotic anaerobic degradation of ethanol.

5 CONCLUSIONS

Based on the data obtained and reviewed as part of this investigation, laboratory results, and current regulatory guidelines, it is SCS' professional opinion that:

- The maximum observed depth of sorbed-phase ethanol impacts was 1 foot below grade at locations where free-phase ethanol was known to have pooled after the spill occurred.
- There is no evidence of ethanol releases to the subsurface via the existing storm drain known to contain free-phase ethanol after the spill occurred.
- Shallow ethanol impacts observed at the Site are degrading rapidly with a calculated ethanol degradation half-life ranging from approximately 13 to 24 days.
- Ethanol impacts were observed to a localized area of shallow groundwater in the vicinity of the ethanol spill with a short-lived detection of dissolved-phase ethanol reported in one well. Several lines of evidence suggesting that active aerobic and/or anaerobic degradation processes are mitigating groundwater impacts via natural attenuation.

6 RECOMMENDATIONS

Based on the data obtained during this Assessment and our conclusions, SCS recommends no further action to delineate or remediate subsurface impacts associated with the ethanol spill.

7 REFERENCES

S.E. Powers, et al, January 2001. "The Transport and Fate of Ethanol and BTEX in Groundwater Contaminated by Gasohol", *Critical Reviews in Environmental Science and Technology*, Volume 31, Number 1, April-June 2001, pp. 79-123

Arcadis U.S., Inc., July 30, 2013, Groundwater Monitoring and Remedial Progress Report, Second Quarter of 2013 for the Mission Valley Terminal San Diego, California

Arcadis U.S., Inc., October 30, 2013, Groundwater Monitoring and Remedial Progress Report, Third Quarter of 2013 for the Mission Valley Terminal San Diego, California

Shaw, July 2011. "Large Volume Ethanol Spills-Environmental Impacts and Response Options". Prepared for Commonwealth of Massachusetts Department of Environmental Protection, at <http://www.mass.gov/eopss/docs/dfs/emergencyresponse/special-ops/ethanol-spill-impacts-and-response-7-11.pdf>

TABLE

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Table 1 - Soil Sample Analytical Results

Qualcomm Stadium Parking Lot
9449 Friars Road, San Diego, California

Sample Collection Date	Sample Designation	Collection Depth (feet below grade)	Ethanol (µg/kg)	Ethylbenzene (µg/kg)	m,p-Xylene (µg/kg)	o-Xylene (µg/kg)
4/10/2013	Core Sample 1	0.5	210,000	<5	<10	<5
9/24/2013	SB1-0.5	0.5	<500	6.8	17	8.9
9/24/2013	SB1-1	1	<500	<5	<10	<5
9/24/2013	SB1-5	5	NA	NA	NA	NA
9/24/2013	SB1-10	10	NA	NA	NA	NA
4/10/2013	Core Sample 2	0.5	3,500,000	<5	<10	<5
9/24/2013	SB2-0.5	0.5	<500	<5	<10	<5
9/24/2013	SB2-1	1	<500	<5	<10	<5
9/24/2013	SB2-5	5	NA	NA	NA	NA
9/24/2013	SB2-10	10	NA	NA	NA	NA
4/10/2013	Core Sample 3	0.5	830,000	<5	<10	<5
9/24/2013	SB3-0.5	0.5	550	6.0	25	14
9/24/2013	SB3-1	1	<500	6.2	27	13
9/24/2013	SB3-5	5	NA	NA	NA	NA
9/24/2013	SB3-10	10	NA	NA	NA	NA
4/10/2013	Core Sample 4	0.5	7,800,000	<5	<10	<5
9/24/2013	SB4-0.5	0.5	63,000	5.2	23	15
9/24/2013	SB4-1	1	36,000	5.4	22	13
9/24/2013	SB4-5	5	<500	<5	<10	<5
9/24/2013	SB4-10	10	NA	NA	NA	NA
9/24/2013	SB5-4	4	<500	<5	<10	<5
9/24/2013	SB5-5	5	NA	NA	NA	NA
9/24/2013	SB5-6	6	NA	NA	NA	NA
9/24/2013	SB5-8	8	<500	<5	<10	<5
9/24/2013	SB6-4	4	<500	<5	<10	<5
9/24/2013	SB6-5	5	NA	NA	NA	NA
9/24/2013	SB6-6	6	NA	NA	NA	NA
9/24/2013	SB6-8	8	<500	<5	<10	<5
9/24/2013	SB7-4	4	<500	<5	<10	<5
9/24/2013	SB7-5	5	NA	NA	NA	NA
9/24/2013	SB7-6	6	NA	NA	NA	NA
9/24/2013	SB7-8	8	<500	<5	<10	<5
9/24/2013	SB8-4	4	<500	<5	17	8.4
9/24/2013	SB8-5	5	NA	NA	NA	NA
9/24/2013	SB8-6	6	NA	NA	NA	NA
9/24/2013	SB8-8	8	<500	<5	<10	<5
9/24/2013	SB9-4	4	<500	<5	<10	<5
9/24/2013	SB9-5	5	NA	NA	NA	NA
9/24/2013	SB9-6	6	NA	NA	NA	NA
9/24/2013	SB9-8	8	<500	<5	<10	<5
9/24/2013	SB10-4	4	<500	<5	<10	<5
9/24/2013	SB10-5	5	NA	NA	NA	NA
9/24/2013	SB10-6	6	NA	NA	NA	NA
9/24/2013	SB10-8	8	<500	<5	<10	<5
9/24/2013	SB11-4	4	<500	<5	<10	<5
9/24/2013	SB11-5	5	NA	NA	NA	NA
9/24/2013	SB11-6	6	NA	NA	NA	NA
9/24/2013	SB11-8	8	<500	<5	<10	<5
9/24/2013	SB12-4	4	<500	<5	<10	<5
9/24/2013	SB12-5	5	NA	NA	NA	NA
9/24/2013	SB12-6	6	NA	NA	NA	NA
9/24/2013	SB12-8	8	<500	<5	<10	<5
9/24/2013	SB13-4	4	<500	20	93	53
9/24/2013	SB13-5	5	NA	NA	NA	NA
9/24/2013	SB13-6	6	NA	NA	NA	NA
9/24/2013	SB13-8	8	<500	<5	<10	<5

Notes:

µg/kg = micrograms per kilogram

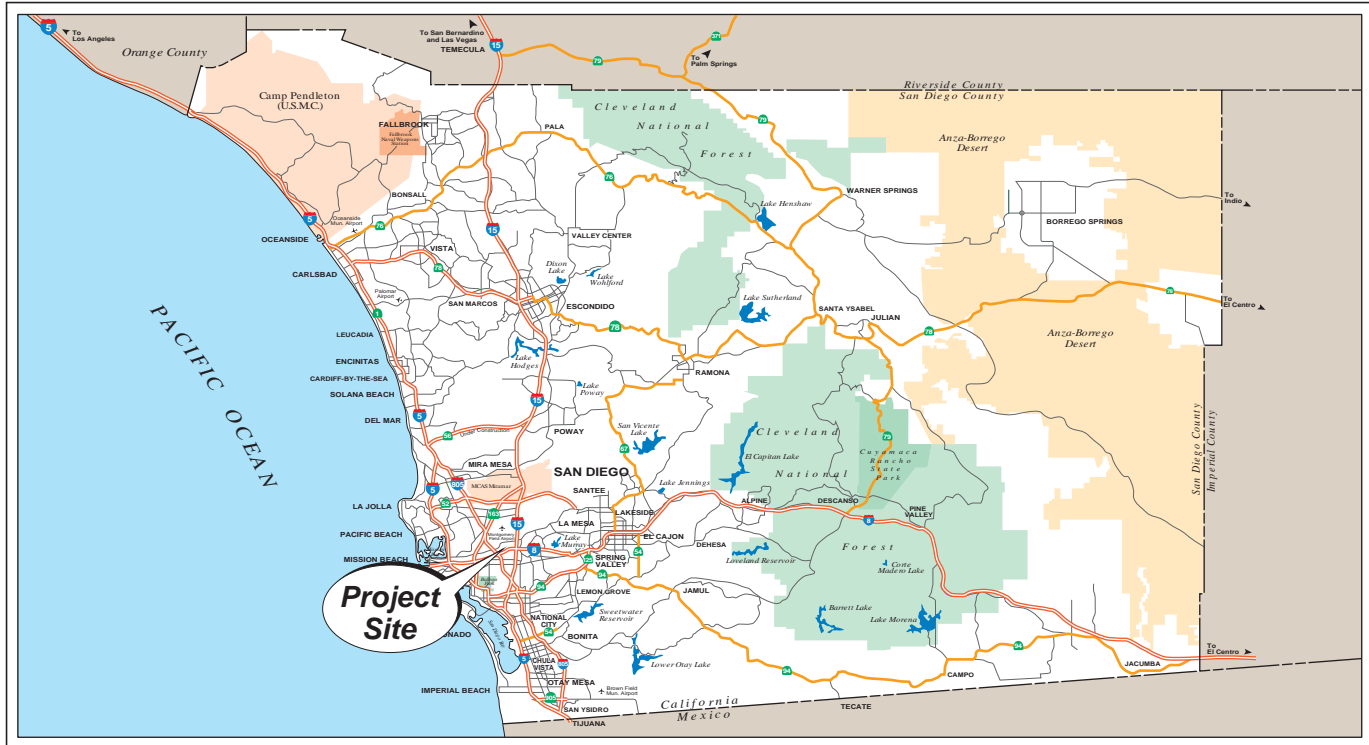
<500 = indicates no reported detection above the specified laboratory reporting limit

Samples analyzed for volatile organic compounds in accordance with EPA Method 8260B.

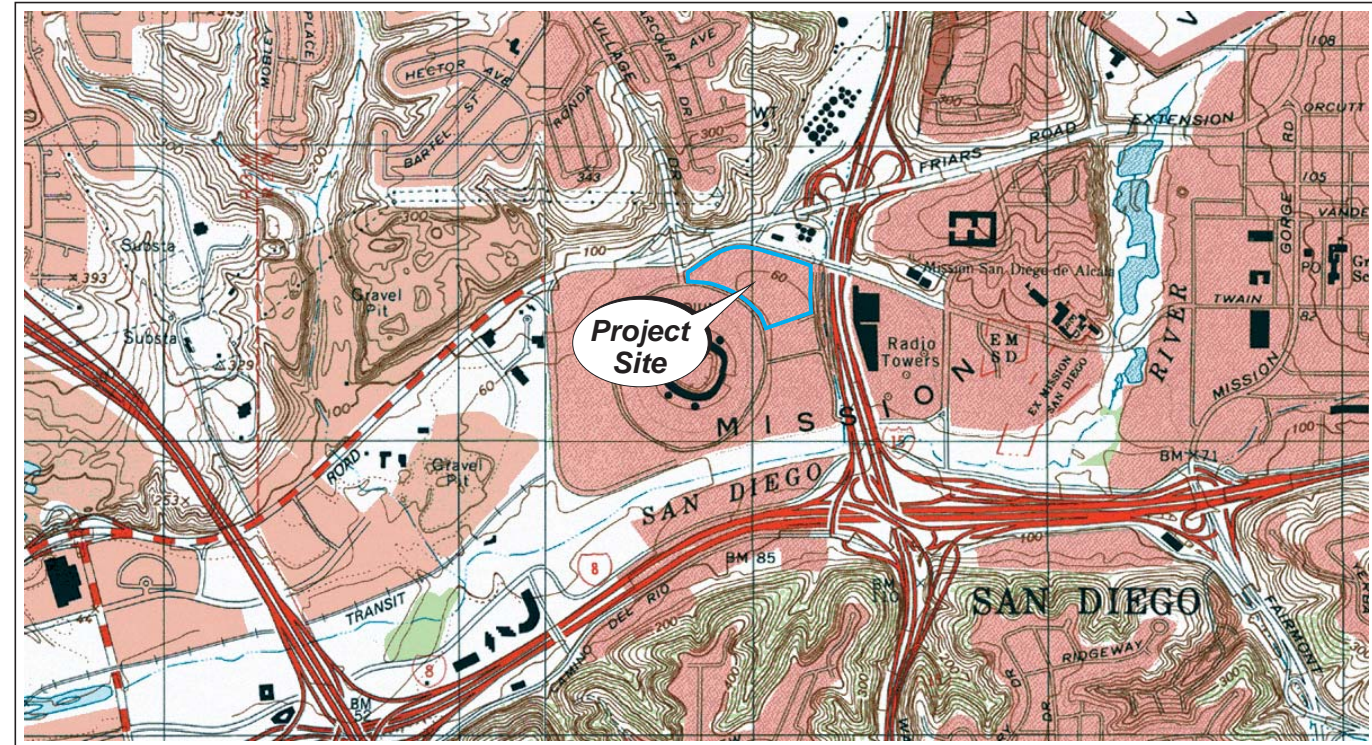
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FIGURES

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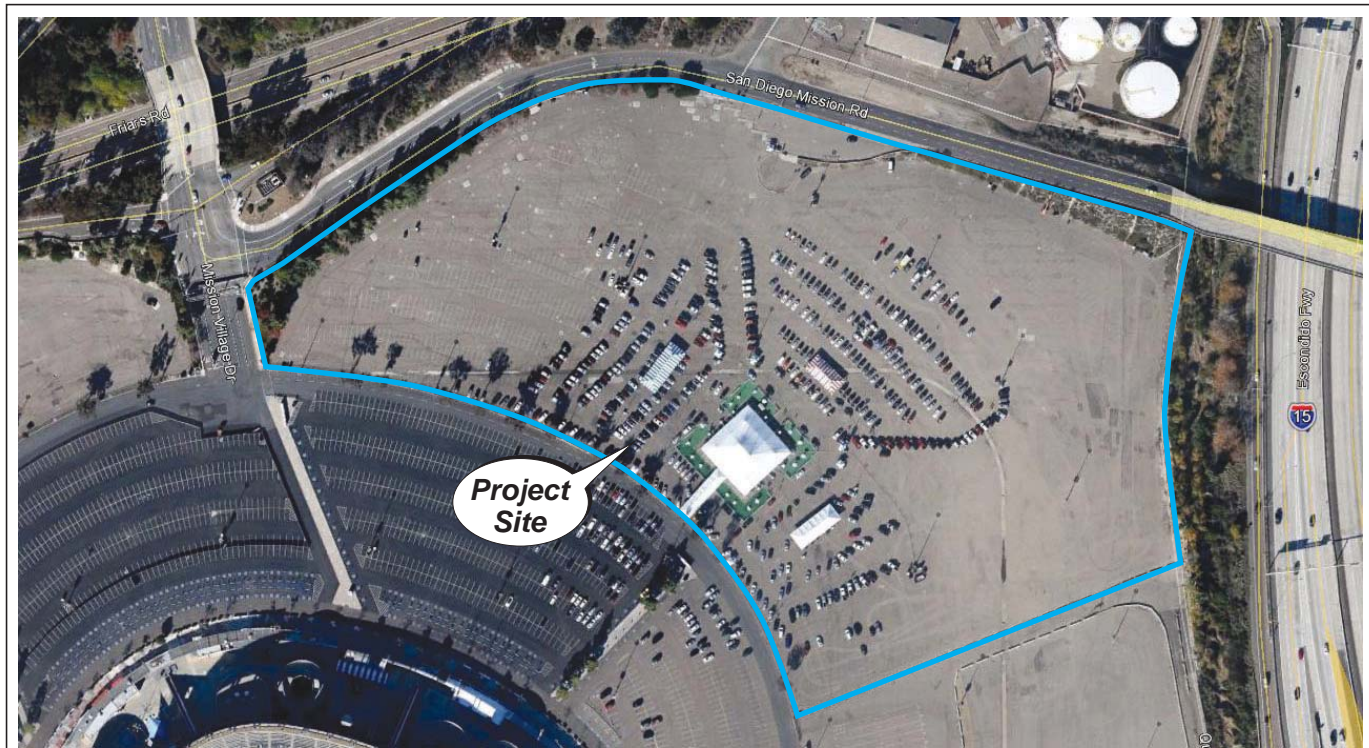
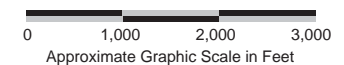


REGIONAL SITE LOCATION



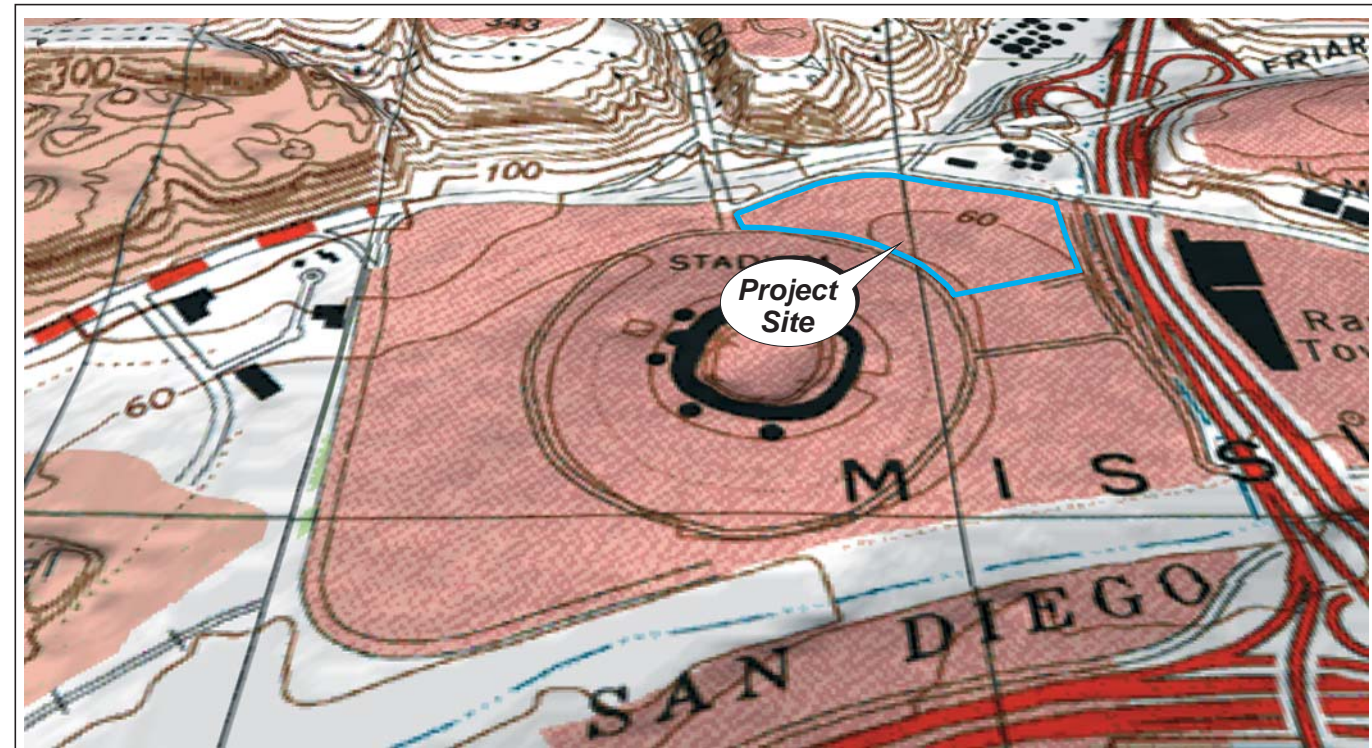
2-DIMENSIONAL SITE LOCATION

Reference:
U.S.G.S. 7.5 Minute Quadrangle Map
La Mesa, California - 1996



SITE AERIAL PHOTOGRAPH

Reference:
Google Earth Aerial Photograph
San Diego, California - November 2012



3-DIMENSIONAL SITE LOCATION

Reference:
U.S.G.S. 7.5 Minute Quadrangle Map
La Mesa, California - 1996

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS

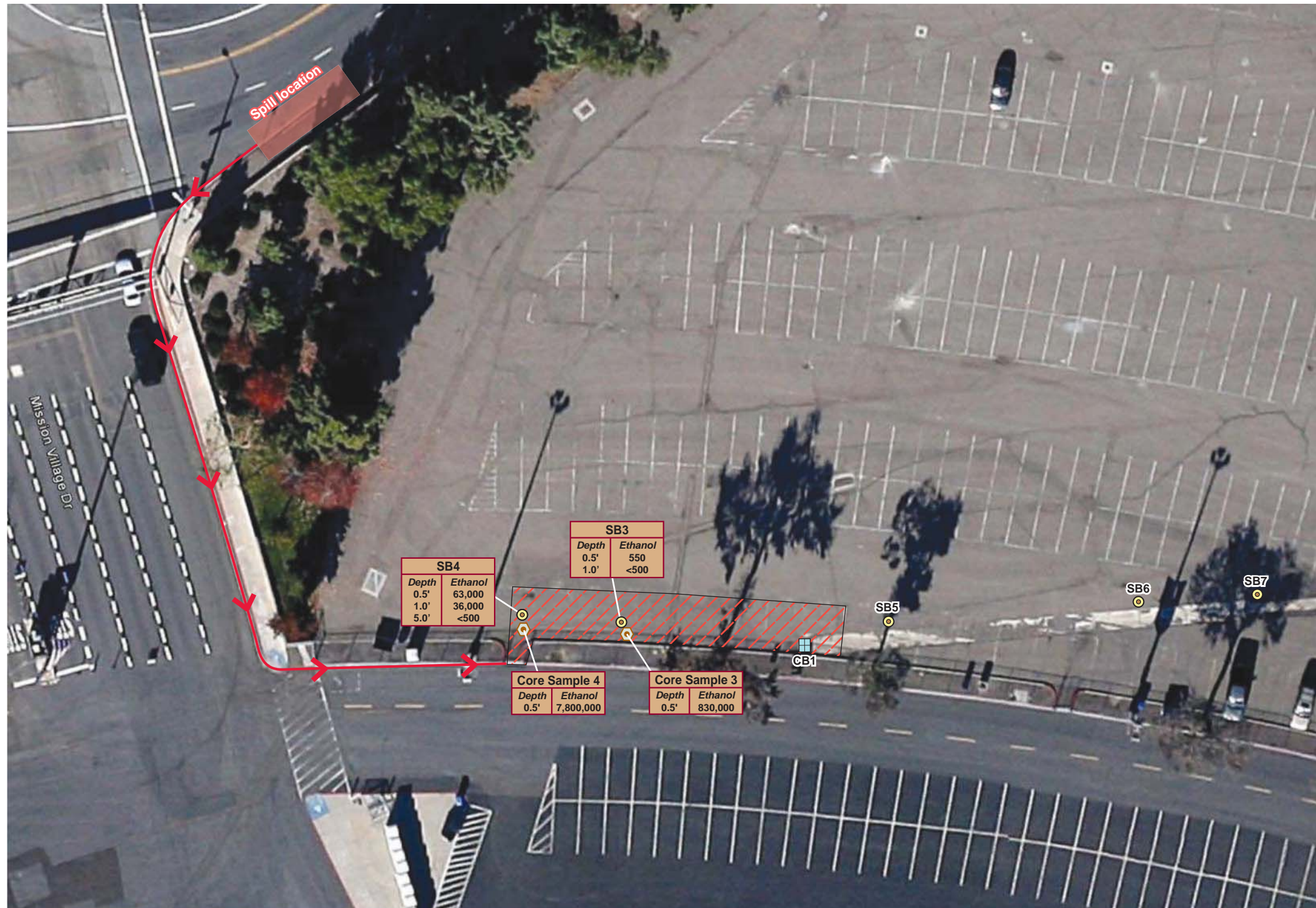
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

FOUR-WAY SITE LOCATION MAP
NRC Environmental Services
Qualcomm Stadium Parking Lot
9449 Friars Road
San Diego, California

Project No.:
01213137.00

Figure 1

Date Drafted:
6/5/13

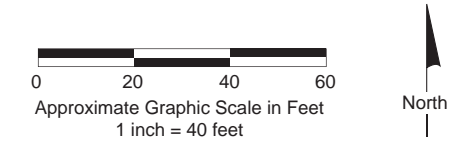


EXPLANATION

- Location of soil sample collected by NRC Environmental on April 10, 2013. Samples were collected approximately 0.5 feet below the asphalt pavement and were analyzed for volatile organic compounds (VOCs) in accordance with EPA Method 8260B. Results reported in micrograms per kilogram ($\mu\text{g}/\text{kg}$).
- Location of direct-push soil boring advanced by SCS on September 24, 2013.
- Reported approximate extent of surface impacts of ethanol spill.
- Approximate location and designation of catch basin.

SB3	
Depth	Ethanol
0.5'	550
1.0'	<500

Analytical results reported in micrograms per kilogram ($\mu\text{g}/\text{kg}$) with depths in feet below grade. <500 indicates analyte not detected above the specified reporting limit. Samples were analyzed for VOCs in accordance with EPA Method 8260B.



Reference:
 Google Earth Aerial Photograph
 San Diego, California - November 2012

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS Environmental Consultants 8799 Balboa Avenue, Suite 290 San Diego, California 92123	AREA A SITE MAP SHOWING BORING LOCATIONS NRC Environmental Services Qualcomm Stadium Parking Lot 9449 Friars Road San Diego, California	Project No.: 01213137.00
		Figure 2
		Date Drafted: 10/10/13

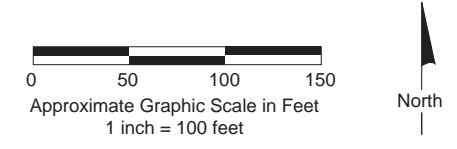


EXPLANATION

- Location of direct-push soil boring advanced by SCS on September 24, 2013. Soil samples were collected at approximately 4, 5, 6, and 8 feet below grade.
- Approximate location and designation of storm drain catch basin.

SB12 Analytical results reported in micrograms per kilogram (µg/kg) with depths in feet below grade. <500 indicates analyte not detected above the specified reporting limit. Samples were analyzed for VOCs in accordance with EPA Method 8260B.

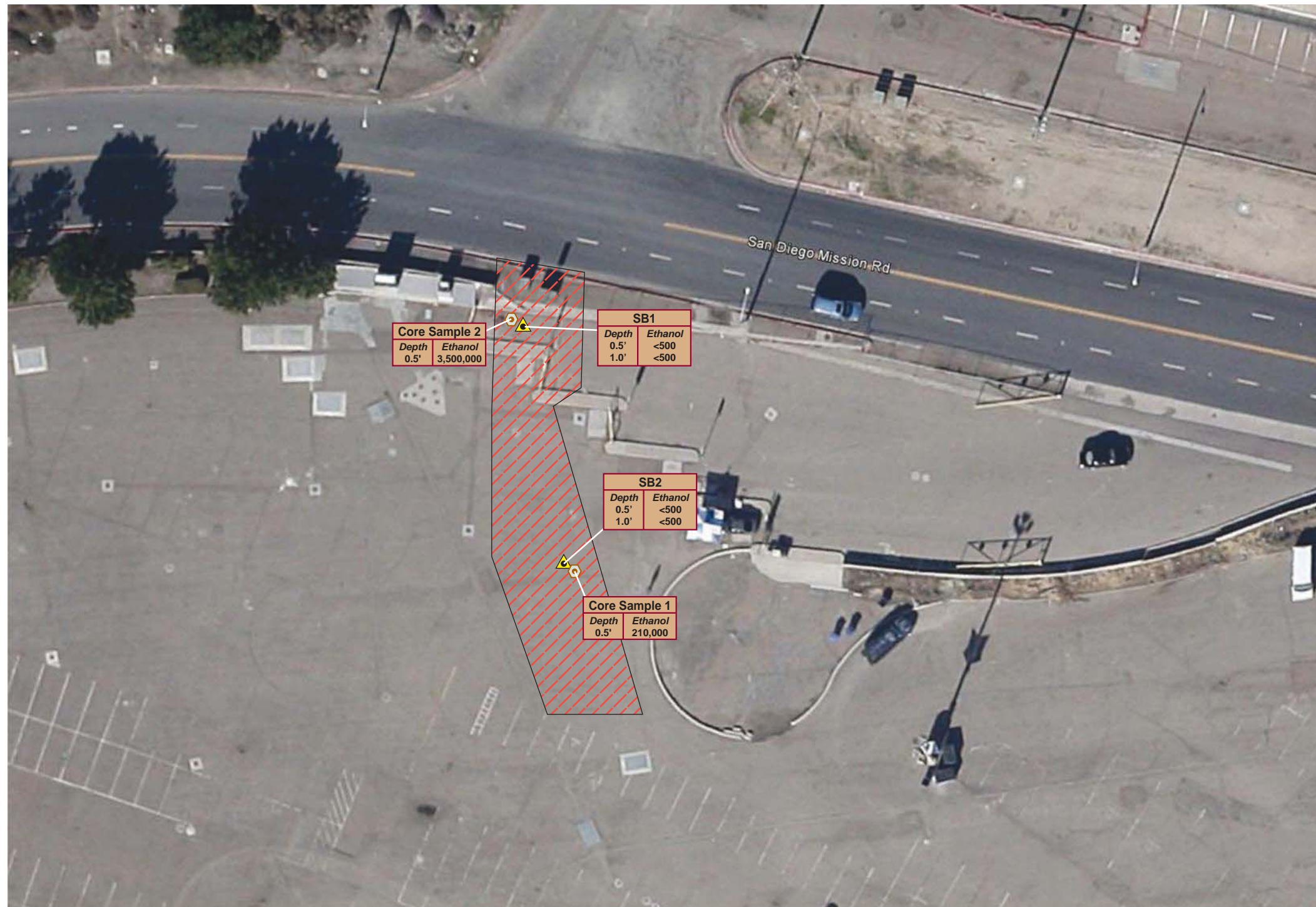
Depth	Ethanol
4.0'	<500
8.0'	<500



Reference:
 Google Earth Aerial Photograph
 San Diego, California - November 2012

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS Environmental Consultants 8799 Balboa Avenue, Suite 290 San Diego, California 92123	AREA A (STORM DRAIN) SITE MAP SHOWING SOIL BORING LOCATIONS NRC Environmental Services Qualcomm Stadium Parking Lot 9449 Friars Road San Diego, California	Project No.: 01213137.00
		Figure 3 Date Drafted: 10/10/13

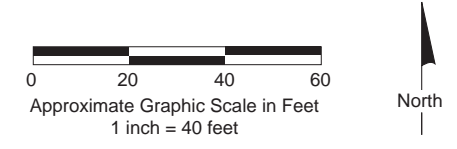


EXPLANATION

- Location of soil sample collected by NRC Environmental on April 9 and 10, 2013. Samples were collected at 0.5 feet below pavement and were analyzed for ethanol and volatile organic compounds (VOCs) in accordance with EPA Method 8260B. Results reported in micrograms per kilogram ($\mu\text{g}/\text{kg}$).
- Location of direct-push soil boring advanced by SCS on September 24, 2013. Soil samples collected at 0.5, 1.0, 5.0, and 10.0 feet below pavement and analyzed for ethanol, benzene, toluene, ethylbenzene, and xylenes in accordance with EPA Method 8260B.

SB1		Analytical results reported in micrograms per kilogram ($\mu\text{g}/\text{kg}$) with depths in feet below grade. <500 indicates analyte not detected above the specified reporting limit.
Depth	Ethanol	
0.5'	<500	
1.0'	<500	

Reported approximate extent of ethanol surface ponding.



Reference:
 Google Earth Aerial Photograph
 San Diego, California - November 2012

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS Environmental Consultants 8799 Balboa Avenue, Suite 290 San Diego, California 92123	AREA B SITE MAP SHOWING BORING LOCATIONS NRC Environmental Services Qualcomm Stadium Parking Lot 9449 Friars Road San Diego, California	Project No.: 01213137.00
		Figure 4
		Date Drafted: 10/10/13

APPENDIX A
DEH Correspondence

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County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
858-505-6700/1-800-253-9933
www.sdcdeh.org

ELIZABETH POZZEBON
ASSISTANT DIRECTOR

August 2, 2013

Ms. Kelly Brandenburg
NRC Environmental Services, Inc.
2950 Kurtz Street
San Diego, CA 92110

Dear Ms. Brandenburg:

VOLUNTARY ASSISTANCE PROGRAM CASE #DEH2013-LSAM-000173
QUALCOMM STADIUM PARKING LOT NORTHEAST
9449 FRIARS ROAD, SAN DIEGO, CA 92108
WORKPLAN APPROVAL

The purpose of this letter is to notify the Responsible Party of the status of the *Subsurface Assessment Workplan* (Workplan), received by the County of San Diego, Department of Environmental Health (DEH), Site Assessment and Mitigation Program on July 24, 2013.

The Workplan, dated June 14, 2013, prepared by SCS Engineers (SCS), covers one of the following phases of corrective action:

Preliminary Site Assessment	()
Soil and Water Investigation	(X)
Corrective Action Plan	()
Verification Monitoring	()
Health Risk Assessment	()

SCS proposes to advance 13 soil borings using a direct-push drill rig. Four of the borings will be drilled adjacent to soil borings that were completed in April 2013 to assess the extent and attenuation of ethanol impacts. Soil samples will be collected at depths of 0.5, 1, 5, and 10 feet below the asphalt. Nine of the borings will be drilled adjacent to observed or suspected breaches in the storm drain, and soil samples will be collected at depths of 2, 4, and 6 feet below the asphalt. Soil samples will be analyzed for volatile organic compounds, including ethanol, at a mobile laboratory.

SCS also proposes to assess ethanol impacts to groundwater by collecting groundwater samples from one or two of the existing groundwater monitoring wells within each of the two ethanol spill areas. SCS has not determined which wells will be sampled, and will obtain DEH concurrence prior to sampling the wells.

The Workplan has been:

"Environmental and public health through leadership, partnership, and science"

- approved.
- disapproved-call the undersigned for further instructions.
- approved with the following changes or conditions:

Note that DEH considers the soil sampling proposed at two feet below the asphalt adjacent to the storm drain and catch basins to be of limited usefulness. Ponding did not occur where the soil borings are proposed, making leaking from the storm drain the mechanism for soil impacts. As such, the shallowest borings should be collected from the side to bottom of the storm drain.

This approval is valid for four months from the date of this letter.

The need for further site characterization and mitigation actions will be determined following evaluation of the written report. If you have any questions, please call me at (858) 505-6874.

Sincerely,

Colleen Hines, Environmental Health Specialist II
Site Assessment and Mitigation Program

cc: Mr. R. Clayton Welch, Office of the San Diego City Attorney
Mr. Keith Etchells, SCS Engineers

APPENDIX B
Soil Boring Logs

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SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB1**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Long.: Ground Surface Elev.:
Borehole Dia.: **2"** Qty of Backfill.: Total Depth: **10'**

SAMPLE LOG			BOREHOLE LOG				Backfill Log	
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log		Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 2 inches below grade, Asphalt pavement	
SB1-0.5'	<500	23.1	0.5				Very dark brown (10 YR 2/2), SILTY, fine- to medium-grained SAND, trace clay and coarse-grained sand, moist.	
SB1-1'	<500	10.4	1.0					
		6.4	3.0					
			4.0					
SB1-5'	NA	3.4	5.0		SM		Dark gray (10 YR 4/1), SILTY, fine-grained SAND, trace clay, moist.	
			6.0					
			7.0					
			8.0					
SB1-10'	NA	0.0	10.0				Same as above.	
			11.0				Boring terminated at 10 feet below grade. Backfilled with hydrated bentonite granules, capped with asphalt patch.	
			12.0					
			13.0					
			14.0					
			15.0					
			16.0					
			17.0					
			18.0					
			19.0					
			20.0					

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB2**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Long.: Ground Surface Elev.:
Borehole Dia.: **2"** Qty of Backfill.: Total Depth: **10'**

SAMPLE LOG			BOREHOLE LOG				Backfill Log	
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log		Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 2 inches below grade, Asphalt pavement	
SB2-0.5'	<500	11.0	0.5		SP		2 inches - 3 feet below grade Grayish-brown (10 YR 5/2), medium-grained SAND, some-trace clay and silt, moist, no odor.	
SB2-1'	<500	6.7	1.0				Same as above.	
			2.0		ML		3 - 10 feet below grade Dark grayish-brown (10 YR 4/2), micaceous SILT, trace clay, moist, no odor.	
		3.2	3.0					
			4.0					
SB2-5'	NA	2.5	5.0					
			6.0					
			7.0					
			8.0					
			9.0					
SB2-10'	NA	0.0	10.0				Same as above.	
			11.0				Boring terminated at 10 feet below grade. Backfilled with hydrated bentonite granules, capped with asphalt patch.	
			12.0					
			13.0					
			14.0					
			15.0					
			16.0					
			17.0					
			18.0					
			19.0					
			20.0					

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB3**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Long.: Ground Surface Elev.:
Borehole Dia.: **2"** Qty of Backfill.: Total Depth: **10'**

SAMPLE LOG			BOREHOLE LOG				Backfill Log	
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log		Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 2 inches below grade, Asphalt pavement	
SB3-0.5'	550	3.5					2 inches - 2 feet below grade, [ROAD BASE]	
SB3-1'	<500	0.3	1		SP		Very dark grayish-brown (10 YR 3/2), fine-grained SAND and GRAVEL, trace silt, dry, no odor.	
			2				2 - 3 feet below grade	
			3		SP		Light brownish-gray (10 YR 6/2), fine- to medium-grained SAND, trace silt, moist, no odor.	
			4				3 - 10 feet below grade	
			5				Very dark grayish-brown (10 YR 3/2), micaceous SILT, trace clay, moist, no odor.	
SB3-5'	NA	0.0	5					
			6		ML			
			7					
			8					
			9					
SB3-10'	NA	0.0	10					
			11				Boring terminated at 10 feet below grade. Backfilled with hydrated bentonite granules, capped with asphalt patch.	
			12					
			13					
			14					
			15					
			16					
			17					
			18					
			19					
			20					

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB4**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Borehole Dia.: **2"** Long.: Qty of Backfill.: Total Depth: **10'** Ground Surface Elev.:

SAMPLE LOG			BOREHOLE LOG				Backfill Log	
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log		Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 2 inches below grade, Asphalt pavement	
SB4-0.5'	63,000	58.3	0.5				Very dark gray (10 YR 3/1), micaceous SILT, dry-moist, slight odor.	
SB4-1'	36,000	33.6	1				Same as above.	
			2					
			3					
			4					
SB4-5'	<500	2.5	5		ML		Dark grayish-brown (10 YR 4/2), SILT, trace clay, micaceous, moist, no odor.	
			6					
			7					
			8					
SB4-10'	<500	3.1	10				Dark yellowish-brown (10 YR 3/4), clayey SILT, moist, no odor.	
			11				Boring terminated at 10 feet below grade. Backfilled with hydrated bentonite granules, capped with asphalt patch.	
			12					
			13					
			14					
			15					
			16					
			17					
			18					
			19					
			20					

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB5**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Borehole Dia.: **3"** Long.: Qty of Backfill.: Total Depth: **8'** Ground Surface Elev.:

SAMPLE LOG			BOREHOLE LOG				Backfill Log	
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log		Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 2 inches below grade, Asphalt pavement	
			1				Internal storm drain depth of approximately 37 inches below grade.	
			2					
			3					
SB5-4'	<500		4				Dark gray (10 YR 4/1), micaceous SILT, trace clay, moist, no odor.	
		0.0	5					
SB5-5'	NA		6		ML			
SB5-6'	NA		7				Same as above.	
			8					
SB5-8'	<500	0.0	8				Boring terminated at 8 feet below grade. Backfilled with hydrated bentonite granules, capped with asphalt patch.	
			9					
			10					
			11					
			12					
			13					
			14					
			15					
			16					
			17					
			18					
			19					
			20					

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB6**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Borehole Dia.: **3"** Long.: Qty of Backfill.: Total Depth: **8'** Ground Surface Elev.:

SAMPLE LOG			BOREHOLE LOG				Backfill Log	
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log		Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 2 inches below grade, Asphalt pavement	
		0.0	1				Internal storm drain depth of approximately 37 inches below grade.	
SB6-4'	<500		4				Dark gray (10 YR 4/1), micaceous SILT, trace clay, moist, no odor.	
SB6-5'	NA		5					
SB6-6'	NA		6		ML			
		0.0	7				Same as above.	
SB6-8'	<500		8				Boring terminated at 8 feet below grade. Backfilled with hydrated bentonite granules, capped with asphalt patch.	
			9					
			10					
			11					
			12					
			13					
			14					
			15					
			16					
			17					
			18					
			19					
			20					

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB7**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Long.: Ground Surface Elev.:
Borehole Dia.: **3"** Qty of Backfill.: Total Depth: **8'**

SAMPLE LOG			BOREHOLE LOG				Backfill Log	
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log		Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 2 inches below grade, Asphalt pavement	
			1				Internal storm drain depth of approximately 37 inches below grade.	
			2					
			3					
SB7-4'	<500	0.0	4					
			5				Dark gray (10 YR 4/1), micaceous SILT, trace clay, moist, no odor.	
SB7-5'	NA		6		ML			
SB7-6'	NA		7					
		0.0	8				Same as above.	
SB7-8'	<500		9				Boring terminated at 8 feet below grade. Backfilled with hydrated bentonite granules, capped with asphalt patch.	
			10					
			11					
			12					
			13					
			14					
			15					
			16					
			17					
			18					
			19					
			20					

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB8**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Borehole Dia.: **3"** Long.: Qty of Backfill.: Total Depth: **8'** Ground Surface Elev.:

SAMPLE LOG			BOREHOLE LOG				Backfill Log	
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log		Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 2 inches below grade, Asphalt pavement	
			1				Internal storm drain depth of approximately 37 inches below grade.	
			2					
			3					
SB8-4'	<500	4.0	4				Brown (10 YR 4/3), micaceous SILT, trace clay and fine-grained sand, moist, no odor.	
SB8-5'	NA		5					
SB8-6'	NA		6		ML			
		0.0	7				Same as above.	
SB8-8'	<500		8					
			9				Boring terminated at 8 feet below grade. Backfilled with hydrated bentonite granules, capped with asphalt patch.	
			10					
			11					
			12					
			13					
			14					
			15					
			16					
			17					
			18					
			19					
			20					

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB9**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Borehole Dia.: **3"** Long.: Qty of Backfill.: Total Depth: **8'** Ground Surface Elev.:

SAMPLE LOG			BOREHOLE LOG				
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log	Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 2 inches below grade, Asphalt pavement
			1				Internal storm drain depth of approximately 37 inches below grade.
			2				
			3				
			4				
SB9-4'	<500	0.8	4				Brown (10 YR 4/3), micaceous SILT, trace clay and fine-grained sand, moist, no odor.
SB9-5'	NA		5				
SB9-6'	NA		6		ML		
		0.0	7				Same as above.
SB9-8'	<500		8				
			9				Boring terminated at 8 feet below grade. Backfilled with hydrated bentonite granules, capped with asphalt patch.
			10				
			11				
			12				
			13				
			14				
			15				
			16				
			17				
			18				
			19				
			20				

Backfill Log
Asphalt
Hydrated Bentonite Granules

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB10**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Long.: Ground Surface Elev.:
Borehole Dia.: **3"** Qty of Backfill.: Total Depth: **8'**

SAMPLE LOG			BOREHOLE LOG				Backfill Log	
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log		Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 1 inch below grade, Asphalt pavement	
			1				Internal storm drain depth of approximately 37 inches below grade.	
			2					
			3					
SB10-4'	<500		4				Dark grayish-brown (10 YR 4/2), silty, fine-grained SAND, some-trace clay, moist-wet, no odor.	
		0.0	5					
SB10-5'	NA		6		SP			
SB10-6'	NA		7					
		0.0	8				Same as above, wet.	
SB10-8'	<500		8				Boring terminated at 8 feet below grade. Backfilled with hydrated bentonite granules, capped with asphalt patch.	
			9					
			10					
			11					
			12					
			13					
			14					
			15					
			16					
			17					
			18					
			19					
			20					

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB11**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Long.: Ground Surface Elev.:
Borehole Dia.: **3"** Qty of Backfill.: Total Depth: **8'**

SAMPLE LOG			BOREHOLE LOG				Backfill Log	
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log		Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 2 inches below grade, Asphalt pavement	
			1				Internal storm drain depth of approximately 37 inches below grade.	
			2					
			3					
SB11-4'	<500		4					
		0.0	5				Dark grayish-brown (10 YR 4/2), micaceous SILT, some-trace very fine-grained sand, moist, no odor.	
SB11-5'	NA		6		ML			
SB11-6'	NA		7					
		0.0	8				Same as above.	
SB11-8'	<500		8				Boring terminated at 8 feet below grade. Backfilled with hydrated bentonite granules, capped with asphalt patch.	
			9					
			10					
			11					
			12					
			13					
			14					
			15					
			16					
			17					
			18					
			19					
			20					

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB12**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Borehole Dia.: **3"** Long.: Qty of Backfill.: Total Depth: **8'** Ground Surface Elev.:

SAMPLE LOG			BOREHOLE LOG				Backfill Log	
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log		Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 1 inch below grade, Asphalt pavement	
			1				Internal storm drain depth of approximately 37 inches below grade.	
			2					
			3					
SB12-4'	<500	0.0	4					
			5				Dark gray (10 YR 4/1), micaceous SILT, trace fine-grained sand and clay, moist, no odor.	
SB12-5'	NA		6		ML			
SB12-6'	NA		7					
		0.0	8				Same as above.	
SB12-8'	<500		9				Boring terminated at 8 feet below grade. Backfilled with hydrated bentonite granules, capped with asphalt patch.	
			10					
			11					
			12					
			13					
			14					
			15					
			16					
			17					
			18					
			19					
			20					

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

SCS ENGINEERS

Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

BOREHOLE LOG

Number: **SB13**

Client: **NRC Environmental**

Job No: **01213137.00**

Sheet: **1 of 1**

Location: **9449 Friars Road
San Diego, California**

Drilling Company: **H&P Mobile Geochemistry**

SCS Rep: **Keith Etchells, CHg 981**

Date Drilled: **9/24/13** Date Drafted: **10/2/13** Drill Rig/Sampling Method: **Direct Push/Split Spoon w/Acetate Sleeves**

Lat.: Long.: Ground Surface Elev.:
Borehole Dia.: **3"** Qty of Backfill.: Total Depth: **8'**

SAMPLE LOG			BOREHOLE LOG				Backfill Log	
Sample Number	Lab results Ethanol (ppb)	FID (ppm)	Depth (feet)	Sample Interval	USCS symbol	Graphic Log		Geologic Description: Formation, soil type, color, grain, minor soil component, moisture, density, odor, etc.
			0				0 - 1 inch below grade, Asphalt pavement	
			1				Internal storm drain depth of approximately 37 inches below grade.	
			2					
			3					
SB13-4'	<500		4					
		19.3	5		ML		Dark gray (10 YR 4/1), micaceous SILT, trace fine-grained sand, moist, no odor.	
SB13-5'	NA		6					
SB13-6'	NA		7					
		0.0	8		SP		Brown (10 YR 5/3), fine-grained SAND, moist, no odor.	
SB13-8'	<500		9					
			10					
			11					
			12					
			13					
			14					
			15					
			16					
			17					
			18					
			19					
			20					

Logged by: Keith Etchells Title: Senior Professional Geologist Date: 9/24/13
 Reviewed by: _____ License no: _____ Date: _____

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Appendix B-3

**Site Conceptual Model
and Off-Terminal Corrective
Action Plan,
LFR Levine-Fricke,
September 8, 2005**

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**Site Conceptual Model and
Off-Terminal Corrective Action Plan
Mission Valley Terminal
San Diego, California**

**September 8, 2005
002-10180-50**

Prepared for:
SFPP, L.P., operating partnership of
Kinder Morgan Energy Partners, L.P.
370 Van Gordon Street
Lakewood, CO 80228

Prepared by:
LFR Levine-Fricke
3150 Bristol Street, Suite 250
Costa Mesa, CA 92626

September 8, 2005

002-10180-50

Ms. Kelly Dorsey
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

Subject: Site Conceptual Model and Off-Terminal Corrective Action Plan,
Mission Valley Terminal, San Diego, California; (TSMC: 40-0054)

Dear Ms. Dorsey:

LFR Levine·Fricke (LFR) has prepared the enclosed Site Conceptual Model (SCM) and Off-Terminal Corrective Action Plan (CAP) for the Mission Valley Terminal in San Diego, California ("the Site"). This report has been prepared on behalf of SFPP, L.P., operating partnership of Kinder Morgan Energy Partners, L.P., and is intended to update the existing Mission Valley Terminal SCM and CAP (dated October 30, 1999) in accordance with Order No. 8 of Cleanup and Abatement Order (CAO) 92-01, Addendum No. 5.

If you have questions regarding the material presented in this report, please contact the undersigned at (714) 444-0111 or (603) 773-9779.

Sincerely,



C. Fredrik (Rick) Ahlers, P.E.
Senior Civil Engineer



Eric M. Nichols, P.E.
Principal Engineer and Vice President

Enclosure

cc: Scott Martin, KMEP
M. Barranco, CENCO-Powerine Oil Co.
S. Pao, ExxonMobil Oil Corp.
J. Whitworth, Shell Oil Products (U.S.)

T. Olson, City of San Diego
G. Lowenberg, City of San Diego
P. Johnson
M. Eggers, Eggers Environmental

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CERTIFICATION

All hydrogeologic and geologic information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by an LFR Levine-Fricke California Professional Geologist.



September 8, 2005

Eric M. Nichols, P.E..
Principal Engineer and Vice President
California Professional Engineer C42695

Date



All engineering information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by an LFR Levine-Fricke California Professional Engineer.



September 8, 2005

C. Fredrik (Rick) Ahlers, P.E..
Senior Civil Engineer
California Professional Engineer C66471

Date



* A professional geologist's and/or professional engineer's certification of conditions comprises a declaration of his or her professional judgment. It does not constitute a warranty or guarantee.

LIMITATIONS STATEMENT

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by LFR Levine-Fricke (LFR) and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, express or implied, is intended or given. To the extent that LFR relied upon any information prepared by other parties not under contract to LFR, LFR makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

Results of any investigations or testing and any findings presented in this report apply solely to conditions existing at the time when LFR's investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the project site may vary from those at the locations where data were collected. LFR's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100 percent confidence in environmental investigation conclusions cannot reasonably be achieved.

LFR, therefore, does not provide any guarantees, certifications, or warranties regarding any conclusions regarding environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations or standards.

1.0 INTRODUCTION AND OBJECTIVES

This document has been prepared by LFR Levine-Fricke (LFR) on behalf of SFPP, L.P., operating partnership of Kinder Morgan Energy Partners, L.P. (Kinder Morgan) in accordance with Order No. 8 of Cleanup and Abatement Order (CAO) 92-01, Addendum No. 5. The Mission Valley Terminal (MVT) is located at 9950 and 9966 San Diego Mission Road, San Diego, California (“the Site”; Figure 1.0-1). This document is intended to update the existing Mission Valley Terminal Site Conceptual Model (SCM) and Corrective Action Plan (CAP) (dated October 30, 1999). This CAP delineates the proposed approach for remediation of petroleum fuel hydrocarbon-impacted soils and groundwater in the off-Terminal area of the Site. Investigation and remediation activities are being conducted in accordance with CAO 92-01, Addendums 1 through 5.

The overall objective of the proposed remedial actions is to employ efficient and cost effective technologies to protect existing and designated future beneficial uses of the soils and groundwater, and to protect human health and ecological receptors.

1.1 Site Location and History

The Mission Valley Terminal is a 10.5-acre aboveground storage tank (AST) facility located in Murphy Canyon near its terminus at Mission Valley (San Diego River Valley). The elevation of the Terminal ranges from approximately 60 to 80 feet above mean sea level (amsl) with a generally consistent and gentle slope to the south. Murphy Canyon is oriented north-south and, at its southern end, opens into a larger valley that follows the San Diego River. The San Diego River flows generally west to Mission Bay, which is located approximately 5 to 6 miles from the Site and Qualcomm Stadium (“the Stadium”), which is located immediately south of the Terminal. Murphy Canyon and the San Diego River valley are at the bottom of steep slopes from the surrounding mesas.

The Terminal has been in operation since 1962 and is owned by SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. Portions of the Site have historically been leased to Texaco, Shell, ExxonMobil, and CENCO-Powerine. Figure 1.1-1 shows the historical lease areas for these tenants. Petroleum products are brought to the Terminal through a pipeline that receives product from the Los Angeles Basin. Products that are currently and were historically stored at the Terminal include leaded gasoline, unleaded gasoline, gasoline additives, jet fuel, diesel, ethanol, and transmix (i.e., a mixture of gasoline, diesel, and jet fuel) (CDM, 1999). Petroleum hydrocarbons have historically been detected in the Terminal area, and have migrated in the direction of groundwater flow to off-Terminal areas to the south and southwest. Qualcomm Stadium and associated parking areas are located immediately downgradient from the Terminal at 9449 Friars Road. The Stadium area is bordered by Friars Road to the north, Interstate 15 to the east, the San Diego River to the south, and developed retail/office buildings east of Fenton Parkway to the west. The Stadium area, which is

approximately 166 acres in size, is owned and operated by the City of San Diego. The Stadium area includes the Stadium (15 acres), parking lots (122 acres), streets (15 acres), a practice field (4.3 acres), and other landscaped and drainage areas (<http://www.stadianet.com>).

The characterization and remediation of groundwater contamination at the Terminal has been ongoing since the late 1980s. The California Regional Water Quality Control Board, San Diego Region (CRWQCB) issued CAO 92-01 on January 3, 1992 and directed the named parties to characterize and remediate soil and groundwater at the Terminal. A CAP was submitted in 1991, a comprehensive site characterization program was completed in 1992, and a remediation system to capture and treat free- and dissolved-phase petroleum hydrocarbons observed in groundwater north of the parking lot of the Stadium was constructed in 1993 and 1994. The remediation system, which began operation in May 1994, is a pump-and-treat system with treatment by granular activated carbon (GAC) absorption. A series of seven extraction wells were installed in the northern portion of the Stadium parking lot. Quarterly groundwater monitoring has been conducted at the Terminal since 1992. In the fourth quarter of 1996, methyl-tertiary-butyl ether (MTBE), a common fuel oxygenate used as an additive in gasoline to comply with the National Ambient Air Standard, was added to the sampling program. The results of the groundwater monitoring indicated that dissolved-phase MTBE was present in the groundwater underlying the Terminal and extended downgradient (south and southwest) of the existing remediation system extraction wells under the Stadium parking lot. In 1998, another investigation was conducted and additional monitoring wells were installed to determine the extent of MTBE impact and the direction of groundwater flow under the Stadium parking lot. MTBE was found to extend to the southwest corner of the Stadium parking lot. Because the nature and extent of the petroleum hydrocarbon release had changed significantly since the time the original CAP was submitted in 1991, on August 27, 1999, the CRWQCB ordered the parties named in the CAO to submit a revised CAP by November 1, 1999. A revised CAP was submitted in October 29, 1999 by Camp, Dresser & McKee (CDM, 1999).

Time Schedule Order (TSO) R9-2002-0042 was adopted by the CRWQCB on March 13, 2002 and ordered a series of additional site investigation and remedial evaluation activities to be conducted, which included the following:

- a receptor pathway assessment for off-Terminal pollution,
- a human health and environmental risk assessment,
- an evaluation of hydrogeology and contaminant transport,
- a performance evaluation of the existing off-Terminal remedial systems,
- modification of off-Terminal remedial systems based on the results of the above performance evaluation,

- a performance evaluation of the modified off-Terminal remedial systems, and
- submittal of a summary report that included groundwater modeling results, a performance evaluation of new extraction wells, an updated estimate of MTBE mass flux, recommendations for additional optimization of the new extraction well system, an updated contingency plan, and proposed milestone cleanup dates for restoration of water quality and the cleanup of all off-Terminal pollution.

The receptor pathway assessment was completed in August 2002 and the off-Terminal risk assessment was completed in October 2002.

The performance evaluation of the original soil-vapor extraction (SVE) and groundwater extraction systems (consisting of extraction wells RW-1 through RW-7) was completed during May through August 2002 (LFR, 2002b, 2002c). The SVE system was subsequently expanded in 2003 to include 11 additional SVE wells (RW-10 through RW-20), plus an additional SVE well (RW-21) which was installed in a lower permeability, finer-grained zone to evaluate the effectiveness of SVE in this lithology. Concurrently, 14 sparging wells and 12 monitoring wells were installed to facilitate an air sparge pilot study (LFR, 2003a). The groundwater extraction and monitoring system was also improved in 2003 with the replacement of well RW-3 by RW-3A and the addition of two new extraction wells (RW-8 and RW-9) and six new multi-level monitoring well clusters (R-43 through R-48) (LFR, 2003a).

Mass flux estimates for selected transect locations were calculated in June 2003 to evaluate the impact on potential receptors, evaluate attenuation of the dissolved-phase plume. In addition, the total volume of impacted water was estimated. The off-Terminal risk assessment was subsequently revised in response to comments received from the CRWQCB and reissued in August 2003.

Thirteen (13) additional SVE wells (RW-22 A & B through RW-34 A & B) were installed in October 2003 to increase the effectiveness of the SVE system in the off-Terminal area. These new wells began extracting vapors in May 2004. Eight multi-level soil vapor-monitoring (SVM) probes (SV-8 through SV-15) were also installed in the off-Terminal area in October 2003 to more thoroughly monitor the effectiveness of the SVE system (LFR, 2004e).

The requirements of the TSO were completed with the submittal of the summary report in January 2004 (LFR, 2004a). A supplemental risk assessment report was also issued in January 2004 which developed risk-based target concentrations for potential future commercial worker exposures to VOCs in indoor air (for land uses other than the current stadium) and also developed mass flux targets to address potential migration of groundwater to a potential future water supply well downgradient of the Terminal (LFR, 2004c).

1.2 Previous Investigations

1.2.1 Groundwater Monitoring Well Installation and Groundwater Monitoring – Off-Terminal

Prior to 1992 – Two groundwater monitoring wells were installed in the off-Terminal area (T-11 and T-12).

July 1992 – Four groundwater monitoring wells (R-9 through R-12) were installed in the northern Stadium parking lot.

November 1992 – Applied Environmental Services (AES) installed two new monitoring wells, PW-4 and PW-6, with the intention of converting the two monitoring wells to SVE/groundwater extraction wells. PW-4 was installed in the parking lot of the Shell Lease Area, and PW-6 was installed in the northern Stadium parking lot.

December 1992 – Five additional groundwater extraction wells (RW-2, RW-3, RW-4, RW-5, and RW-7) and one groundwater monitoring well (R-15) were installed by LFR in the northern Stadium parking lot and the designations of PW-4 and PW-6 were changed to RW-1 and RW-6, respectively.

September through November 1998 – Six new groundwater monitoring wells (R-16 through R-21AS) were installed in the northern Stadium parking lot by Harding Lawson Associates (CDM, 1999).

February through March 1999 – Monitoring well R-22 northwest of the Stadium was installed by CDM in conjunction with field investigation and aquifer testing activities (CDM, 1999).

December 2000 – Monitoring well R-27 (AS, AM, FS) was installed.

February 2001 – Monitoring wells R-25 (AS, AM, AD, FS) through RW-26 (AS, AM, FS) and R-28 (AS, AM, FS) through RW-29 (AS, AM, FS) were installed.

June 2001 – Monitoring wells R-21 (AM, AD, FS), RW-23 (AS, AM, AD, FS), R-30 (AS, AD, FS), and RW-31 (AS, AM, AD, FS) were installed.

November 2001 – Monitoring well R-24 (AS, AM, AD) was installed.

January 2002 – Monitoring well R-24FS was installed.

May through June 2002 – Monitoring wells R-32 (AS, AD) through R-42 (AS, AM, AD) were installed.

October through November 2002 – Two additional groundwater extraction wells (RW-8 and RW-9) were installed to expand the extent of dissolved-phase hydrocarbon

capture downgradient of the existing system, and to reduce uncertainties regarding the extent of hydraulic capture in the deeper alluvium. Additional details regarding these activities are presented in the Remediation System Technical Evaluation Report (LFR, 2003a).

December 2002 – Two additional groundwater monitoring well clusters (R-43 and R-44) were installed to further delineate groundwater quality in the area north-northwest of extraction well RW-3A and north of extraction well RW-8. Additional details regarding these activities are presented in the Remediation System Technical Evaluation Report (LFR, 2003a).

December 2002 – Groundwater extraction well RW-3A was installed to replace RW-3. Additional details regarding this activity are presented in the Remediation System Technical Evaluation Report (LFR, 2003a).

February 2003 – Four additional groundwater monitoring well clusters (R-45 [AS, AM, AD] through R-48 [AS, AM, AD]) were installed to evaluate the performance of the expanded groundwater extraction system. Additional details regarding these activities are presented in the Remediation System Technical Evaluation Report (LFR, 2003a).

April through June 2005 – Four additional monitoring well clusters (R-60 [AS, AM, AD] through R-63 [AS, AD]) were installed to further delineate groundwater elevations and sample point density to the northeast and southeast of the stadium. Seven additional monitoring well clusters (R-64 [AS, AD, FS] through R-70 [AS, AM, AD, FS]) were also installed to evaluate contaminant mass flux. Additional details regarding these activities are presented in the Report on the Installation of Wells for Mass Flux Monitoring and Additional Delineation of the Off-Terminal Area (LFR, 2005a).

Additional details regarding groundwater monitoring wells are presented in the Mission Valley Terminal Second Quarter 2005 Groundwater Monitoring and Remedial Progress Report (LFR, 2005c).

1.2.2 Aquifer Testing – Site-Wide

March 1993 – Terra Services conducted specific-capacity tests on all seven extraction wells (RW-1 through RW-7) to estimate maximum and practical well yields. Terra Services' estimates of maximum well yield were based on completely dewatering each well. The practical yields were estimated based on steady-state drawdown that would allow 5 feet of standing water in the well casing for operation of an electric submersible pump (CDM, 1999). The results of the specific capacity tests were subsequently utilized for design of a full-scale hydraulic barrier.

February through March 1999 – CDM performed a field investigation consisting of piezometer/monitoring well installation and aquifer testing. Aquifer tests were performed at off-Terminal wells R-16, R-21, and R-22. The tests at wells R-16 and

R-22 consisted of longer-term pumping/recovery tests with monitoring at nearby piezometers. The test at R-21 was a single-well, short-term test with water levels only measured in the pumped well (CDM, 1999).

July through August 2002 – LFR conducted a performance evaluation of the original groundwater extraction system (consisting of extraction wells RW-1 through RW-7). Pumping tests were performed on off-Terminal recovery wells RW-3, RW-5, and RW-7 as a part of the constant rate aquifer test. A summary of this testing can be found in the Groundwater Extraction Evaluation of Existing Recovery System (LFR, 2002c).

September 2004 – LFR conducted an aquifer test on RW-35 to evaluate the ability of three newly installed on-Terminal extraction wells to intercept contaminated groundwater migrating across the downgradient Terminal property boundary at San Diego Mission Road, and to facilitate further dewatering of the off-Terminal residual LNAPL source zone. A step-rate drawdown test was performed on recovery well RW-35, followed by a constant-rate pumping test. A summary of this testing can be found in the Aquifer Testing and Design of a Property Boundary Containment Barrier Report (LFR, 2004i).

1.2.3 Vadose Zone SVE Testing – Off-Terminal

April 1998 – Park Corporation conducted pilot scale tests to evaluate the feasibility of SVE as an appropriate remediation technology for removing petroleum hydrocarbon vapors from subsurface soils and residual LNAPL at the Site, as well as to evaluate site-specific parameters (i.e., flow, vacuum,) required for design and installation of a full scale system. Pilot scale tests were conducted on groundwater extraction well RW-1, located in the parking lot of the Shell Lease Area, and groundwater extraction well RW-5, located in the northern parking area of the Stadium (Park Corporation, 1998).

November 1999 – SVE at the Mission Valley Terminal began as part of ongoing remedial activities, which started with free-product recovery in January 1992, followed by groundwater extraction beginning in May 1994. Groundwater extraction wells RW-1 through RW-7 were converted to groundwater/vapor extraction wells and a SVE system was installed. Soil vapor was initially extracted from wells RW-1 and RW-2 in November 1999.

August 2000 – Vapor extraction began from well RW-5.

September 2001 – Vapor extraction began from wells RW-3, RW-4, RW-6, and RW-7.

May 2002 – LFR conducted a performance evaluation of the original SVE system (consisting of extraction wells RW-1 through RW-7). Four SVE wells (RW-1, RW-3, RW-5, and RW-7) were used for the SVE field evaluation activities. For a complete description of field activities, details regarding the data, methods used to estimate the zone of effective sweep, and discussions of the results of the evaluation, refer to the Soil Vapor Extraction System Evaluation Report (LFR, 2002b). Based on the

recommendations in that report, several modifications to the existing SVE system were completed to improve remedial effectiveness at the Site, primarily in the off-Terminal area.

April 2003 – The remediation system was further expanded with the addition of 11 new SVE wells (RW-10 through RW-21) and 12 new air sparge wells (AS-01 through AS-12). Concurrently, five vapor monitoring probes (SV-03 through SV-07) were installed in to monitor the effectiveness of the new SVE wells. Additional details regarding these activities are presented in the Remediation System Technical Evaluation Report (LFR, 2003a).

April through June 2003 – LFR conducted a performance evaluation on the newly expanded SVE system. The overall objective of the performance evaluation was to improve and enhance the remedial effectiveness of systems operating in the off-Terminal area. The objectives, specific to SVE, were to estimate the vacuum ROI, effective soil permeability, the zone of effective sweep, and the relationship between applied well head vacuum and the resultant flow rate, and calculate mass extraction rates. Additionally, tests were performed at RW-21 for the same objectives specific to an SVE well located in less permeable, finer-grained soils (targeted SVE). Four SVE wells (RW-18, RW-19, RW-20, and RW-21) were used for the SVE field evaluation activities utilizing the existing SVE system. SVE field evaluation activities performed on RW-21 were conducted using a portable high vacuum extraction unit. Additional details regarding these activities are presented in the Remediation System Technical Evaluation Report (LFR, 2003a).

May through September 2003 – LFR conducted additional performance evaluation activities to observe the effects of concurrent operation of both the SVE and air-sparge systems. The objectives, specific to SVE, were to estimate the rate of capture of sparge air by the SVE system, evaluate whether VOC concentrations in the SVE wells would increase with the addition of sparge air to the subsurface, and evaluate how air sparging affects the SVE zone of effective sweep. Three SVE wells (RW-18, RW-19, and RW-20) were used for the SVE field evaluation activities. Additional details regarding these activities are presented in the Remediation System Continued Technical Evaluation Report (LFR, 2004d).

October 2003 – The remediation system was again expanded with the addition of thirteen dual-nested SVE wells (RW-22 A & B through RW-34 A & B). Concurrently, eight multi-level SVM probes (SV-08 through SV-15) were installed to provide additional data points for monitoring changing conditions in soil vapor due to the influence of SVE, and to track progress in reducing vapor-phase volatile organic compound (VOC) concentrations in the off-Terminal LNAPL area. Additional details regarding these activities are presented in the Soil Vapor Extraction System Expansion Report (LFR, 2004e). Following installation, LFR conducted vapor extraction tests on each of the new SVE wells (RW-22 A & B through RW-34 A & B), utilizing the existing infrastructure, to extract vapors from each well over a maximum time period of 24 hours per well. These data were used to evaluate which of the new SVE wells exhibited VOC mass extraction rates that warranted permanent connection to the

existing SVE system infrastructure, and which wells may be better suited to undergo temporary, short duration extraction events. Based on the results of the vapor extraction tests all thirteen new wells were connected to the existing SVE system. Additional details regarding these activities are presented in the Soil Vapor Extraction System Expansion Report (LFR, 2004e).

May 2004 – The 13 dual-nested SVE wells (RW-22 A & B through RW-34 A & B) were placed on-line.

July through December 2004 – LFR conducted an evaluation of the current SVE system including the extraction blower, thermal oxidizer, and subsurface conveyance piping. The assessment included an evaluation of the underground piping system friction loss characteristics, the thermal oxidizer system capacity and the treatment system efficiency. The objective of this assessment was to identify limitations and problem areas of the existing system and to develop corrective remedies.

1.2.4 Vadose Zone Air Sparge Testing – Off-Terminal

April through June 2003 – Twelve (12) new air sparge wells (AS-01 through AS-12) and 12 dual-nested air sparge monitoring wells (ASM-01 through ASM-12) were installed to conduct air-sparge pilot testing. The objectives of this pilot study were to calculate the breakout pressure and maximum achievable flow rate for each well, estimate the rate of capture of sparge air by the SVE system, and estimate the air sparging zone of influence within the study area. The air-sparge pilot test included pressure distribution testing, helium tracer distribution testing, and dissolved oxygen (DO) testing. Additional details regarding these activities are presented in the Remediation System Technical Evaluation Report (LFR, 2003a).

May through September 2003 – Additional performance evaluation activities to observe the effects of concurrent operation of both the SVE and air-sparge systems were conducted to evaluate the concurrent operation of both the air-sparge and SVE systems. Specific objectives were to evaluate the rate of capture of sparge air by the SVE system, evaluate if VOC concentrations in the SVE wells increased with the addition of sparge air to the subsurface, and evaluate how the injection of sparge air affected the SVE zone of effective sweep. Additional details regarding these activities are presented in the Remediation System Continued Technical Evaluation Report (LFR, 2004d). The air sparge system was not expanded beyond the original pilot-test grid.

1.2.5 Soil Sampling Off-Terminal

April through June 2001 – Aquiver and GeoSyntec conducted a cone penetration testing/laser induced fluorescence (CPT/LIF) investigation that consisted of 127 locations from the Terminal manifold area to the northern parking area of the Stadium, 39 of which were in the off-Terminal area, for the purpose of source area delineation (Aquiver and GeoSyntec, 2001). A total of 46 soil samples (22 from the off-Terminal area) were collected during CPT/LIF borings and sent for analysis of total petroleum hydrocarbons as gasoline (TPHg) and extractable fuel hydrocarbons (EFH)

by EPA Method 8015 modified, and benzene, toluene, ethylbenzene, and total xylenes (BTEX) and MTBE by EPA Method 8260B. Additional details regarding these activities are presented in the Conceptual Site Model Report (Aqui-Ver and Equilon, 2001).

May 2002 – LFR conducted a performance evaluation of the original SVE system, consisting of extraction wells RW-1 through RW-7. Prior to testing, 3 groundwater/vadose zone observation wells and 2 vadose zone observation wells were installed parallel and perpendicular to the groundwater flow direction adjacent to extraction wells RW-1, RW-3, RW-5, and RW-7, for a total of 20 new monitoring locations. Three soil samples were collected and submitted for each set of vapor monitoring probes for a total of 12 soil samples (nine from the off-Terminal area). Soil samples were submitted for moisture content and density analysis by ASTM Method D2937, specific gravity by ASTM Method D854 and air permeability by API Method RP40. Additional details regarding these activities are presented in the Soil Vapor Extraction System Evaluation Report (LFR, 2002b).

July through September 2003 – LFR conducted a CPT/LIF investigation that consisted of a total of 40 locations, 28 of which were in the off-Terminal area, to further characterize lithology and residual LNAPL distribution. A total of 37 soil samples (three from the off-Terminal area) were collected from the CPT/LIF borings and sent for analysis of TPHg, total petroleum hydrocarbons as diesel (TPHd), and EFH by EPA Method 8015 modified, BTEX, MTBE, and tertiary butyl alcohol (TBA) by EPA Method 8260B. Additional details regarding these activities are presented in the Additional LNAPL Distribution and Lithologic Characterization Report (LFR, 2003c).

April 2003 – Eleven (11) soil samples collected during the installation of ASM-04 and two soil samples collected during the installation of ASM-10 were analyzed for physical properties, which include moisture content by ASTM Method D2216 and bulk density, grain density, total porosity, air filled porosity, water and NAPL pore fluid saturation, and native state effective permeability to air by ASTM Method RP40. Additional details regarding these activities are presented in the Remediation System Technical Evaluation Report (LFR, 2003a).

October 2003 – Thirteen (13) additional SVE wells (RW-22 A & B through RW-34 A & B) and eight multi-level SVM probes (SV-8 through SV-15) were installed. One soil sample was collected from each new SVE well to further characterize the distribution of petroleum hydrocarbons in the off-Terminal area. Samples were analyzed for TPH by EPA Method 8015 (modified for gasoline and diesel), BTEX, and MTBE by EPA Method 8260B. An additional seven soil samples (collected from well borings RW-22, RW-24, RW-26, RW-27, RW-29, RW-33, and RW-34) were submitted for analysis of soil physical properties (including moisture content) by ASTM Method D2216 and bulk density, grain density, total porosity, air filled porosity, water and NAPL pore fluid saturation, and native state effective permeability to air by ASTM Method RP40. Additionally, four soil samples were collected from each multi-level SVM probe location (28 samples total), excluding SV-15. These samples were analyzed for TPH by EPA Method 8015 (modified for gasoline and diesel) and for BTEX and MTBE by

EPA Method 8260B. Additional details regarding these activities are presented in the Soil Vapor Extraction System Expansion Report (LFR, 2004e).

April through June 2005 – Thirty (30) soil samples were taken during the installation of monitoring wells R-60 through R-70 for further characterization of the off-Terminal area. Samples were analyzed for grain size by ASTM Method D422M/D4464. Additional details regarding these activities are presented in the Report on the Installation of Wells for Mass Flux Monitoring and Additional Delineation of the Off-Terminal Area (LFR, 2005a).

May 2005 – As part of additional soil investigation activities conducted to further characterize the vertical distribution, composition, leachability, and mobility of LNAPL in the northeastern parking lot of Qualcomm Stadium, nine soil borings were advanced on May 17 to May 19, 2005. 179 soil samples were collected and submitted for analysis for residual LNAPL saturation and capillary pressures in the water / LNAPL system. Two additional soil samples were sent to the City of San Diego for bench-scale testing of alternative remedial technologies. Additional details regarding these activities are presented in the Results of Additional Soil Investigation in the Off-Terminal Area Report (LFR, 2005d).

1.2.6 Soil Vapor Sampling – Off-Terminal

January through July 1992 – Simon Hydro-Search collected 88 soil gas samples throughout the Terminal down into the northern portion of the Stadium parking lot (Simon Hydro-Search, 1992). The 30 samples collected in the Stadium parking lot indicated total volatile hydrocarbon (TVH) concentrations as high as 390,000 parts per million by volume (ppmv) and benzene as high as 62,000 ppmv underneath the Stadium parking lot (CDM, 1999).

August through September 2002 – Multi-level SVM probe SV-01 was originally sampled on August 21 and September 9, 2002 as part of a health risk assessment and analyzed for VOCs by EPA Method TO-14a, TPH by EPA Method 8015b, and fixed gases (e.g., methane, carbon dioxide, nitrogen, and oxygen) by thermal conductivity sensor. Additional details regarding these activities are presented in the Health Risk Assessment, Off-Site Areas – Mission Valley Terminal (ENVIRON and LFR, 2003).

November through December 2003 – Samples were collected from multi-level SVM probes SV-08 through SV-15 for evaluation of rebound concentrations. Samples were collected on November 17 and 18, 2003 just after the SVE system was shut down, and subsequent samples were collected on November 25, December 1, December 8, and December 15 while the system remained offline. The samples were analyzed for VOCs by EPA Method TO-14 and fixed gases by ASTM Method D1946-90.

June through November 2004 – Quarterly analysis of soil vapor samples collected from SV-01 and SV-08 through SV-15 began in June 2004 in accordance with the Interim Work Plan for Remedial Progress Monitoring and Reporting Program. The

samples were analyzed for VOCs by EPA Method TO-14 and fixed gases by ASTM Method D1946-90.

November 2004 through April 2005 – Soil gas samples from SV-01 and SV-08 through SV-15 were collected quarterly and analyzed for VOCs by EPA Method TO-15 and fixed gases by ASTM Method D1946-90.

April 2005 through Present – Soil gas samples from SV-01 and SV-08 through SV-15 are collected quarterly and analyzed for total hydrocarbon concentration, hydrocarbon fraction composition (C₄-C₅, C₆-C₇, C₈-C₁₀, C₁₁-C₁₄), and speciated volatile organic hydrocarbons by EPA Method TO-15 (GC-MS) and for fixed gases (oxygen, carbon dioxide, and nitrogen) by ASTM Method D1946-90. Additionally, samples are collected from a subset of 25 percent of the monitored SVM probes on a biweekly basis. All biweekly samples are analyzed by EPA Method TO-14 (GC-MS) for total hydrocarbon concentration, hydrocarbon fraction composition (C₄-C₅, C₆-C₇, C₈-C₁₀, C₁₁-C₁₄), BTEX, and MTBE.

1.2.7 LIF Investigations – Off-Terminal

April through June 2001 – Aqi-Ver and GeoSyntec conducted a CPT/LIF investigation that consisted of 127 locations from the Terminal manifold area to the northern parking area of the Stadium, 39 of which were in the off-Terminal area, for the purposes of source area delineation. Additional details regarding these activities are presented in the Conceptual Site Model Report (Aqi-Ver and Equilon, 2001).

December 2002 – LFR conducted a second CPT/LIF investigation that consisted of 16 off-Terminal locations for the purpose of siting the air-sparging pilot test area. Additional details regarding these activities are presented in the Remediation System Technical Evaluation Report (LFR, 2003a).

July through September 2003 – LFR conducted a third CPT/LIF investigation that consisted of a total of 40 locations, 28 of which were off-Terminal locations, selected to further characterize lithology and residual LNAPL distribution. Additional details regarding these activities are presented in the Additional LNAPL Distribution and Lithologic Characterization Report (LFR, 2003c).

1.2.8 Surface Water Sampling

March and October 1999 – Two surface water samples were collected from the San Diego River in March 1999 and six additional samples were collected in October 1999. The samples were collected during low-flow conditions since impacts from contaminants in groundwater would likely be most observable during such conditions. MTBE was the only constituent detected in the samples, and was detected in only two of the eight samples, as described in the Corrective Action Plan (CDM, 1999).

August 2002 – LFR collected four surface water samples from the San Diego River which were analyzed for BTEX, MTBE, 1,2-dichloroethane (EDC), and TBA by EPA Method 8260B. Additional details regarding these activities are presented in the Health Risk Assessment, Off-Site Areas – Mission Valley Terminal (ENVIRON and LFR, 2003).

Additionally, receiving water samples collected from Murphy Canyon Creek on a monthly basis and analyzed for hardness and turbidity in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit No. CAG919002, Order No. 2001-96.

1.2.9 Off-Terminal Health Risk Assessment

October 2002 – Environ Corporation (Environ) and LFR performed a health risk assessment to characterize potential human health or ecological risks due to exposure to site-related chemicals that have migrated to off-Terminal area. Details regarding these activities are presented in the Health Risk Assessment, Off-Site Areas – Mission Valley Terminal (ENVIRON and LFR, 2003).

January 2003 – A Supplemental Health Risk Assessment was prepared for the purpose of developing risk-based target concentrations (RBTCs) for potential future commercial worker exposure to VOCs in indoor air for uses other than the current Stadium, as well as to develop mass flux targets to address potential migration of groundwater to a potential future water supply well located downgradient of the Terminal. Details regarding these activities are presented in the Supplemental Health Risk Assessment (LFR, 2004c).

1.2.10 Microcosm Study

March 2004 – A study was conducted by the University of California, Davis to evaluate the potential for aerobic biodegradation of MTBE through bench scale microcosm testing of soil and sediment samples collected from off-Terminal area. The microcosm study found evidence of aerobic degraders of MTBE in soil samples from the Upper Alluvium, and in a sediment sample collected from the San Diego River (Skow, 2004).

1.3 Previous Feasibility Studies/Corrective Actions

Site characterization and remedial activities have been ongoing since the late 1980's. The initial site characterization was completed in 1992 and a corrective action plan was submitted. Manual product recovery (hand bailing/skimming) activities were conducted from 1992 until activities were suspended in November 2004 due to small product accumulations that are not conducive to recovery by hand bailing and to allow for undisturbed monitoring of LNAPL thicknesses in wells LF-4, T-2, and R-53AS, when measurable.

1.3.1 Free Product Removal

LNAPL recovery by hand bailing or skimmers has occurred at the Terminal since the late 1980s and have been documented since as early as 1992 (CDM, 1999). Free product recovery activities have been suspended since November 2004 due to small product accumulations that are not conducive to recovery by hand bailing and to allow for undisturbed monitoring of LNAPL thicknesses in wells LF-4, T-2, and R-53AS, when measurable. Approximately 6,136 gallons (38,350 pounds [lbs] of hydrocarbons, assuming a product density of approximately 6.25 lbs per gallon) of free product has been recovered to date from both the on-Terminal and off-Terminal areas combined (LFR, 2005c).

1.3.2 Soil-Vapor Extraction

1.3.2.1 Pilot Scale Soil-Vapor Extraction Tests

In April 1998, Park Corporation conducted pilot scale tests to evaluate the feasibility of SVE as an appropriate remediation technology for removing petroleum hydrocarbon vapors from subsurface soils and residual LNAPL at the Site, as well as to evaluate site-specific parameters (i.e., flow, vacuum,) required for design and installation of a full scale system. Pilot scale tests were conducted on groundwater extraction well RW-1, located in the parking lot of the Shell Lease Area, and groundwater extraction well RW-5, located in the northern parking area of the Stadium (Park Corporation, 1998). The pilot test concluded that significant vapor concentrations of TPH compounds (> 37,000 ppmv as indicated by laboratory analysis) were extractable from RW-1 and that a zone of influence of at least 150 feet was estimated for the extraction wells in this area.

1.3.2.2 Installation of a Full Scale Soil-Vapor Extraction System

Vapor extraction at the Mission Valley Terminal began in November 1999 as part of ongoing remedial activities, which started with free-product recovery in January 1992 followed by groundwater extraction beginning in May 1994. Groundwater extraction wells RW-1 through RW-7 were converted to groundwater/vapor extraction wells and an SVE system was installed in November 1999. Soil vapor was initially extracted from wells RW-1 and RW-2 in November 1999. Subsequently, extraction began from RW-5 in August 2000 and from RW-3, RW-4, RW-6, and RW-7 in September 2001.

The SVE system operated from November 1999 through August 2001 utilizing a Bobcat catalytic oxidizer capable of extracting 250 standard cubic feet per minute (scfm). On August 20, 2001, the Bobcat catalytic oxidizer was replaced by a Stealth Cobra 1000 Thermal/Catalytic Oxidizer capable of extracting approximately 500 scfm.

1.3.2.3 Performance Evaluation of Original SVE System

In May 2002, a performance evaluation of the original SVE system (consisting of extraction wells RW-1 through RW-7) was completed. The specific objectives of the SVE evaluation were to: correlate applied well-head vacuum (AWHV) to vapor-flow rates, calculate an estimated zone of effective influence of the SVE system, estimate operation parameters and the duration of remediation system operation for reduction and attenuation of VOC concentrations in soil, and evaluate optimal operation parameters for the SVE system based on the estimated area of effective influence in conjunction with additional site assessment and monitoring data. The conclusions and recommendations were reported in the Soil Vapor Extraction System Evaluation Report (LFR, 2002b) which was completed in partial fulfillment of Task C.3 of TSO R9-2002-0042, and was submitted to the CRWQCB on November 22, 2002.

1.3.2.4 Phase I Expansion and Performance Evaluation

Based on the recommendations presented in the Soil Vapor Extraction System Evaluation Report (LFR, 2002b), 11 new SVE wells (RW-10 through RW-20) were installed in the Phase I area in December 2002. In February 2003, a new target SVE well (RW-21) was installed in the Phase I area with a short screened interval centered in a lower permeability, finer-grained zone to evaluate the effectiveness of SVE in this lithologic zone. Concurrently, five vapor monitoring wells (SV-03 through SV-07) were installed in the Phase I area to monitor the effectiveness of the new SVE wells. The 12 new SVE wells were permanently connected to the existing SVE system infrastructure in February and March 2003.

Additional performance evaluation activities were conducted from April through June 2003 to evaluate the Phase I expansion of the SVE system and the newly added air sparge grid. The overall objective of the Phase I performance evaluation activities was to improve and enhance the remedial effectiveness of systems operating in the off-Terminal area. The objectives, specific to SVE, were to estimate the vacuum ROI, effective soil permeability, the zone of effective sweep, and the relationship between applied well head vacuum and the resultant flow rate, and calculate mass extraction rates as it relates to SVE wells located in the vadose zone. Additionally, tests were performed at RW-21 for the same objectives specific to an SVE well located in less permeable, finer-grained soils (targeted SVE). The conclusions and recommendations were reported in the Remediation System Technical Evaluation Report (LFR, 2003a), which was completed in fulfillment of Task C.5 of the TSO and submitted to the CRWQCB on July 8, 2003.

1.3.2.5 Phase I Expansion and Continued Performance Evaluation

As recommended in the Remediation System Technical Evaluation Report (LFR, 2003a), vapor extraction wells RW-10 through RW-20 were placed on-line on April 10, 2003 and RW-1, RW-2, and RW-7 were taken off-line on July 1, 2003.

Because the Phase I performance evaluation focused on the site-specific characteristics of SVE and air sparge systems running independently of one another, it was also recommended that additional performance evaluation tests be conducted to evaluate the effects of concurrent operation of these two systems.

Performance evaluation activities continued on the Phase I SVE expansion and air-sparge grid in order to observe the effects of concurrent operation of both the SVE and air-sparge systems, as recommended in the Remediation System Technical Evaluation Report (LFR, 2003a). The overall objective of the continued performance evaluation activities was to evaluate the concurrent operation of both the air-sparge and SVE systems and the effects of the air-sparge system on the efficiency of the SVE system to evaluate whether or not continued operation and/or additional expansion of the current air-sparge grid was warranted. The objectives, specific to SVE, were to estimate the rate of capture of sparge air by the SVE system, evaluate whether VOC concentrations in the SVE wells would increase with the addition of sparge air to the subsurface, and evaluate how air sparging affects the SVE zone of effective sweep. The results and conclusions were reported in the Remediation System Continued Technical Evaluation Report (LFR, 2004d) which was submitted to the CRWQCB on January 23, 2004. Submittal of the Remediation System Continued Technical Evaluation Report (LFR, 2004d) was not a requirement of the TSO but was completed as a follow-up to the Remediation System Technical Evaluation Report, which was completed in partial fulfillment of Task C.5 of the TSO. The report recommended that the SVE system continue to operate without the air sparge system as an SVE enhancement.

1.3.2.6 Phase II Expansion

Based on the recommendations presented in the Remediation System Technical Evaluation Report (LFR, 2003a), 13 new SVE wells (RW-22 through RW-34) were installed in the Phase II area in October 2003 to complete SVE coverage of the off-Terminal residual LNAPL plume.

Following installation, each of the new SVE wells (RW-22 A & B through RW-34 A & B) underwent a vapor extraction test to evaluate which of the new SVE wells had the greatest VOC mass extraction rates and warranted permanent connection to the existing SVE system infrastructure, and which wells should undergo temporary, short duration extraction events. The results and conclusions were reported in the Soil Vapor Extraction System Expansion Report (LFR, 2004e) which was submitted to the CRWQCB on March 1, 2004. Submittal of the Soil Vapor Extraction System Expansion Report (LFR, 2004e) was not a requirement of the TSO, but was completed as a follow-up to the Remediation System Technical Evaluation Report, which was completed in partial fulfillment of Task C.5 of the TSO.

The report recommended that all 13 new wells be connected to the existing SVE system. On May 19, 2004, RW-22 A & B through RW-34 A & B were placed on-line and are currently extracting soil vapor.

SVE is ongoing and has physically removed approximately 493,927 lbs of hydrocarbons since SVE activities began up through the second quarter of 2005. Additional VOC removal has occurred through enhanced aerobic biodegradation.

1.3.2.7 SVE System Infrastructure Assessment

In October 2005, upgrades will be completed to the existing SVE treatment system intended to reduce makeup fuel costs and further improve SVE system performance. This work includes the installation of a natural gas line, replacing a 5-inch portion of the SVE conveyance trunk line crossing San Diego Mission Road with a 12-inch conveyance line and a 10-inch conveyance line, replacing the existing 30-horsepower (hp) SVE blower with a new 40-hp Sutorbilt blower designed to extract approximately 1,000 scfm at 9 inches of mercury vacuum, and replacing the SVE system's 40-gallon air/water separator with a 125-gallon air/water separator.

1.3.3 Air Sparging

1.3.3.1 Phase I Expansion and Performance Evaluation

Based on the recommendations presented in the Soil Vapor Extraction System Evaluation Report (LFR, 2002b), 14 new air sparge wells (AS-01 through AS-14) were installed in the Phase I area in December 2002. Concurrently, 12 dual-nested air sparge monitoring wells (ASM-01 through ASM-12) were installed in the Phase I area to monitor the effectiveness of the new air sparge wells, as well as to facilitate evaluation of the air sparge grid to improve and enhance the remedial effectiveness of SVE.

Performance evaluation activities were conducted from April through June 2003, to evaluate the Phase I expansion of the SVE system and the newly added air sparge grid. The overall objective of the Phase I performance evaluation activities was to improve and enhance the remedial effectiveness of systems operating in the off-Terminal area. The objectives, specific to air sparging, were to calculate the breakout pressure and maximum achievable flow rate for each well, estimate the rate of capture of sparge air by the SVE system, and estimate the air sparging zone of influence within the Phase I grid. The Phase I air sparge evaluation included pressure distribution testing, helium tracer distribution testing, and DO testing. The results and conclusions were reported in the Remediation System Technical Evaluation Report (LFR, 2003a), which was completed in fulfillment of Task C.5 of the TSO and submitted to the CRWQCB on July 8, 2003.

1.3.3.2 Phase I Expansion and Continued Performance Evaluation

As recommended in the Remediation System Technical Evaluation Report (LFR, 2003a), performance evaluation activities continued on the Phase I SVE expansion and air-sparge grid in order to observe the effects of concurrent operation of both the SVE and air-sparge systems. The overall objective of the continued performance evaluation

activities was to evaluate the concurrent operation of both the air-sparge and SVE systems and the effects of the air-sparge system on the efficiency of the SVE system, to evaluate whether continued operation and/or additional expansion of the current air-sparge grid was warranted. Specific objectives were to evaluate the rate of capture of sparge air by the SVE system, evaluate if VOC concentrations in the SVE wells increase with the addition of sparge air to the subsurface, and evaluate how air sparge affects the SVE zone of effective sweep. The results and conclusions were reported in the Remediation System Continued Technical Evaluation Report (LFR, 2004d) which was submitted to the CRWQCB on January 23, 2004. Submittal of the Remediation System Continued Technical Evaluation Report (LFR, 2004d) was not a requirement of the TSO but was completed as a follow-up to the Remediation System Technical Evaluation Report, which was completed in partial fulfillment of Task C.5 of the TSO.

Based on the recommendations presented in the Remediation System Continued Technical Evaluation Report (LFR, 2004d), the air sparge system was not expanded beyond the test grid and the SVE system continues to operate without the air sparge system as an SVE enhancement.

1.3.4 MTBE Ex-Situ Treatment Technology Pilots

Two treatment technologies were evaluated for treating dissolved MTBE: advanced oxidation and enhanced biodegradation. A field test of advanced oxidation was performed by Applied Process Technology (APT) using their high pressure oxidation (HiPox) unit in late January and early February 1999. An enhanced biodegradation pilot system using U.S. Filter/Envirex's fluidized bed bioreactor technology was initiated on March 2, 1999. The objective of both tests was to evaluate the effectiveness and costs, both capital and operating, of removing dissolved MTBE (CDM, 1999).

1.3.4.1 Advanced Ex-Situ Oxidation

APT's process applies hydrogen peroxide and ozone in a line-pressure reactor, referred to as a "HiPox" system. The HiPox process oxidizes MTBE and its byproducts, in order of occurrence: TBA, tertiary-butyl-formate (TBF), and acetone (CDM, 1999).

APT evaluated the process using water from the influent batch tank and from groundwater from four extraction wells. The influent batch tank water was a mixture of both process water from Terminal operations (probably from tank draws) and extracted groundwater. The ratio of each influent stream was unknown. MTBE was reduced from 230,000 parts per billion (ppb) to 0.7 ppb, but APT did not calculate the costs for this removal efficiency, stating that it would be cost-prohibitive (CDM, 1999).

The HiPox process was evaluated using extracted groundwater only, and costs were calculated for a 100-gpm flow rate, reducing MTBE concentrations in groundwater from 9,500 ppb to 100 ppb, 15 ppb, and 5 ppb (CDM, 1999).

1.3.4.2 Enhanced Ex-Situ Biodegradation

The U.S. Filter/Envirex system uses a GAC fluidized bed bioreactor to support microbes that biodegrade MTBE and other organic compounds.

The biological treatment system used in the study was a Model 30 fluidized bed reactor manufactured by U.S. Filter, Envirex Products. The 15-foot tall by 20-inch diameter tower was loaded with GAC, upon which bacteria were grown as a bio-film (CDM, 1999).

Three field trials were conducted. The first trial (FT1) was conducted from March 3 to August 20, 1999; the second trial (FT2) was conducted between October 26, 1999 and March 3, 2000; and the third trial (FT3) was conducted from April 5 to June 10, 2000. In FT1, the reactor was loaded with 166 kilograms (kg) of Weststates coconut-based GAC. For FT2, the reactor was charged with 170 kg of Calgon coconut-based GAC. For FT3, the carbon from the second trial (FT2) was left in the reactor and used again. The results of this evaluation can be found in Factors Influencing Biological Treatment of MTBE Contaminated Ground Water (Stringfellow et al., 2001).

Results from the study found that MTBE treatment was more sensitive to upset than gasoline hydrocarbon treatment. Events such as excess iron accumulation inhibited MBTE treatment, but not hydrocarbon treatment. Multiple regression analysis identified biomass accumulation and temperature as the most important variables controlling the efficiency of MTBE treatment. The influent concentration and loading of hydrocarbons, but not MTBE, also impacted MTBE treatment efficiency. The results of this study suggest the following guidelines for improving MTBE treatment: long cell retention times in the reactor are necessary for maintaining MTBE treatment, loading optimization should be based on bio-film or biomass measures rather than reactor size for better process control, and temperatures should be controlled if possible (Stringfellow et al., 2001).

1.3.5 Off-Terminal Hydraulic Containment

1.3.5.1 Installation of Full Scale Hydraulic Containment Barrier

In November 1992, Applied Environmental Services (AES) installed two new monitoring wells, PW-4 and PW-6, with the intention of converting the two monitoring wells to SVE/groundwater extraction wells. PW-4 was installed in the parking lot of the Shell Lease Area, and PW-6 was installed in the northern Stadium parking lot. In December 1992, LFR installed five additional groundwater extraction wells (RW-2, RW-3, RW-4, RW-5, and RW-7) in the northern Stadium parking lot and subsequently changed the designation of PW-4 to RW-1 and PW-6 to RW-6.

In March 1993, Terra Services conducted specific-capacity tests on all seven extraction wells to estimate maximum and practical well yields. The results of the specific

capacity tests were subsequently utilized for design of a full-scale hydraulic barrier (CDM, 1999).

Groundwater extraction from extraction wells RW-1 through RW-7 initially began in May 1994, during which time the system operated at an average daily flow rate of approximately 100 to 150 gpm. Treated water was discharged to Murphy Canyon Creek until the NPDES permit was revoked by the CRWQCB in December 1994, when the system discharged LNAPL to the creek (CDM, 1999).

Groundwater extraction was restarted, following system modifications to prevent further LNAPL discharge, in September 1996 under a new NPDES permit. The system was subsequently shut down again when the second NPDES permit was suspended in December 1996 due to two permit violations for discharging arsenic to Murphy Canyon Creek. Arsenic was present in discharge water at concentrations above the NPDES discharge limit established in the September 1996 permit (CDM, 1999).

Groundwater extraction was started a third time in August 1998. Treated water was stored in holding tanks and periodically trucked to a sanitary sewer discharge location (City of San Diego Trucked Industrial Waste Discharge Permit 25-0065) about 12 miles from the Site until August 1999, when discharge to a temporary sewer connection adjacent to the Terminal began (City of San Diego Industrial User Discharge Permit 06-0507-01A).

The system was shut down again when the permit to discharge to the temporary sewer connection expired in August 2001 and could not be renewed. The system was subsequently restarted a fourth time in October 2001. The off-Terminal hydraulic containment barrier has generally remained in operation since that time, with the exception of planned periodic shutdowns for maintenance and testing activities, or unplanned shutdown events (CDM, 1999). Extracted groundwater is currently pumped to the Terminal property, where it is treated in the facility's groundwater treatment system and discharged to Murphy Canyon Creek in accordance with NPDES Permit No. CAG919002, Order No. 2001-96.

1.3.5.2 Groundwater Extraction Evaluation of Existing Recovery System

In July and August 2002, a performance evaluation of the original groundwater extraction system (consisting of extraction wells RW-1 through RW-7) was completed. The specific objective of the groundwater extraction system evaluation was to evaluate the efficiency and effectiveness of the existing groundwater extraction system so that future system expansion and optimization could be evaluated to address dissolved-phase MTBE impacts downgradient of the existing system. The conclusions and recommendations were reported in the Groundwater Extraction Evaluation of Existing Recovery System Report (LFR, 2002c) which was completed in partial fulfillment of Task C.3 of the TSO, and was submitted to the CRWQCB on November 21, 2002.

1.3.5.3 Phase I Expansion and Performance Evaluation

Based on the recommendations presented in the Groundwater Extraction Evaluation of Existing Recovery System Report (LFR, 2002c), three new groundwater extraction wells (RW-3A, RW-8, and RW-9) and six new groundwater monitoring well clusters (R-43 through R-48) were installed in order to further evaluate the effectiveness of the groundwater extraction system. In November and December 2002, extraction well RW-3A was installed to replace historically poor performing extraction well RW-3. In October and November 2002, extraction wells RW-8 and RW-9 were installed southwest of the main containment barrier in the northern and northwestern Stadium parking lots.

Groundwater is currently being extracted from wells RW-3A through RW-9, treated in the facility's water treatment system, and discharged to Murphy Canyon Creek in accordance with NPDES Permit No. CAG919002, Order No. 2001-96.

Groundwater extraction is ongoing, and has removed approximately 13,214 lbs of hydrocarbons since groundwater extraction activities began through the second quarter of 2005.

1.3.6 Alternative Remediation Evaluation for Off-Terminal Source Reduction

A detailed evaluation of alternative remediation technologies for off-Terminal source reduction was completed in early 2004. The results of evaluation were reported in the Alternative Remediation Evaluation for Off-Site Source Reduction Report dated April 26, 2004 (LFR, 2004f).

Included in the report are detailed descriptions of the alternative treatment technologies reviewed, a discussion of technological feasibility with respect to remediation of both the vadose and saturated zones, and a discussion of promising alternative treatment technologies recommended for comprehensive, detailed evaluation if the current and proposed treatment systems (expanded SVE, continued operation of the existing off-Terminal hydraulic containment barrier, and installation and operation of an on-Terminal hydraulic containment barrier) do not result in adequate progress towards achieving the remedial objectives for the off-Terminal area.

The technologies evaluated included the following:

- In-Situ Chemical Oxidation
 - ozone enhanced air sparging
 - H₂O₂ injection catalyzed with ferrous iron
 - potassium permanganate injection
 - persulfate injection

- Enhanced In-Situ Bioremediation
 - bio-sparging
 - Oxygen Release Compound™
 - cometabolic bioremediation
- Thermally Enhanced Mobilization with SVE
 - radio frequency/electromagnetic heating
 - electrical resistance heating
 - steam flooding
- Other Technologies
 - pneumatic and hydro fracturing
 - soil washing
 - in-situ surfactant/co-solvent flushing
 - targeted high-vacuum SVE
 - in-situ seismic stimulation
 - ART integrated remediation system
 - excavation

The initial screening summarized the capabilities of each of the technologies reviewed in relation to the site-specific conditions of the off-Terminal area. Based on the information compiled for the initial screening, three alternative treatment technologies (electrical resistance heating, in-situ seismic stimulation [ISS], and ART accelerated remedial technology) were recommended for more comprehensive, detailed evaluation should the preferred remedial actions fail to produce adequate progress towards achieving the remedial objectives for the off-Terminal area. A subsequent pilot test of the ISS technology was conducted in the on-Terminal area at monitoring well R-52AS. The pilot test failed to produce positive results and the ISS technology has since been removed from the list of alternative remedial technologies recommended for potential further evaluation.

1.3.7 In-Situ Seismic Stimulation

ISS technology is an emerging procedure for enhancing the performance of groundwater remediation systems. ISS involves transmitting high-energy, low frequency acoustical waves into the subsurface to enhance COC mobility and increase hydraulic conductivity. The acoustical waves are generated by electrically powered Terfenol – D wave generators that are small enough to fit into a 2-inch well.

This technology is intended for sites with low permeability soils where physical forces (e.g., capillary forces) hold NAPL within the pore space, soil micro-heterogeneities are

prevalent, and soil has a high sorptive capacity. ISS has been used in the oil production industry as an enhancement for petroleum extraction, although its use as a remediation technology is relatively new. Laboratory bench-scale studies simulating sites with low permeability soils have shown increases in permeability of the saturated zone and potentially in the overlying unsaturated zones.

1.3.7.1 In-Situ Seismic Stimulation Pilot Study

The objective of the ISS pilot study was to evaluate the technical feasibility and effectiveness of the technology as a potential enhancement to existing remedial technologies currently being utilized to remediate residual LNAPL in off-Terminal area. Specifically, the pilot test was intended to evaluate the use of ISS to increase dissolution of LNAPL into groundwater, and to evaluate its effectiveness in enhancing hydraulic conductivity.

The pilot test results were inconclusive, and suggest that ISS was not immediately successful as an enhancement to existing remedial actions. ISS did not appear to increase the mobility or dissolution of the residual LNAPL. Evaluations of changes in hydraulic conductivity were inconclusive. Additional details regarding this pilot study are presented in the In-Situ Seismic Stimulation Pilot Study Report (LFR, 2004h).

1.3.8 Property Boundary Hydraulic Containment

1.3.8.1 Aquifer Testing at Property Boundary

Groundwater extraction wells RW-35 through RW-37 were installed in the downgradient portion of the Terminal property along the southern property boundary to prevent further migration of hydrocarbon impacted groundwater from the Site and to assist in dewatering the lower saturated portion of the LNAPL smear zone in the off-Terminal area.

Aquifer testing was conducted that indicated that the property boundary wells can achieve the desired dewatering in the off-Terminal residual LNAPL source zone; however, to reach target water elevations within a matter of months, rather than years, an increase in the current 200-gpm NPDES discharge limit has been obtained (LFR, 2004i).

Groundwater extraction from wells RW-35 through RW-37 began in February 2005. Since this time, the total system flow rate for all of the groundwater extraction wells has remained below 200 gpm due to process limitations associated with the capacity of the groundwater treatment system. However, subsequent modifications to the treatment system were completed in September 2005 and the flow rates for extraction wells RW-35 and RW-36 have been increased to levels intended to increase the rate of dewatering of the off-Terminal LNAPL source zone. Hydraulic containment of both the Terminal property and off-Terminal source area continue to be maintained while

groundwater levels in this area are being monitored at an increased frequency for evidence of dewatering in the off-Terminal residual LNAPL source zone.

2.0 SITE CONCEPTUAL MODEL

A SCM has been developed for the off-Terminal area to assist in the development and implementation of corrective actions. A SCM consists of three elements:

- definition of the nature and extent of contaminant sources
- description of the fate and transport mechanisms and the overall distribution of contaminants
- identification of potential exposure pathways and receptors

A SCM is used to summarize the relationships between a chemical sources, exposure pathways, and potential receptors. The SCM identifies potential or suspected chemical sources, potentially impacted media, and potential receptors. It also identifies the potential exposure routes for contacting impacted media. These source-pathway-receptor relationships can provide the basis for a quantitative exposure and risk evaluation. Only complete (or potentially complete) source-pathway-receptor relationships are included in quantitative risk evaluations.

The potentially complete current and future exposure pathways for the off-Terminal areas have been evaluated in the Receptor Pathway Assessment Off-Site Areas Report (LFR, 2002a) and the Health Risk Assessment Off-Site Areas Report (ENVIRON and LFR, 2003) by evaluating the SCM in relation to current and expected land use and parcel zoning, current and expected groundwater use, and the beneficial uses of groundwater and surface water.

The following sections describe the off-Terminal SCM by presenting the general hydrogeologic setting, the distribution of constituents in off-Terminal source areas, and the dominant fate and transport mechanisms through which the identified potential receptors are exposed. An evaluation of the potential impacts to receptors is also included. This summary of the SCM is generally consistent with state guidance on site conceptual models as applied to MTBE releases (SWRCB, 2000).

2.1 General Setting

The Mission Valley Terminal is a 10.5-acre AST facility located at 9950 and 9966 San Diego Mission Road, San Diego, California. The Terminal and surrounding area are shown on Figure 2.1-1. The Terminal is located in Murphy Canyon, which is oriented in a north/south direction and opens into the larger Mission Valley at its southern end. Murphy Canyon and Mission Valley are surrounded by relatively steep slopes from the surrounding mesas.

The off-Terminal area is downgradient (south) from the Terminal south of and including San Diego Mission Road and includes Qualcomm Stadium, the Stadium parking lot, and downgradient areas near the San Diego River.

Ground surface elevations in the off-Terminal area gently slope to the southwest from an elevation of approximately 60 feet amsl near San Diego Mission Road to approximately 50 feet amsl near the San Diego River. The off-Terminal area is bordered by the Terminal to the north; Murphy Canyon Creek and Interstate Highway 15 (I-15 or Escondido Freeway) to the east; office and retail buildings to the south, beyond the San Diego River; and office and retail buildings to the west, followed by residential areas.

The Terminal, immediately to the north of the off-Terminal area, has been in operation since 1962, and is owned by SFPP, L.P., operating partnership of Kinder Morgan Energy Partners, L.P. Some portions of the Terminal are currently or have been historically leased to Texaco, Shell, Exxon Mobil, and CENCO-Powerine. Historical lease areas are shown in (Figure 1.1-1). Petroleum products are brought to the Terminal through a pipeline that receives product from the Los Angeles Basin. Petroleum products currently or historically stored at the Terminal include leaded gasoline, unleaded gasoline, gasoline additives, jet fuel, diesel, ethanol, and transmix (i.e., a mixture of gasoline, diesel and jet fuel) (CDM, 1999). Petroleum hydrocarbons have historically been released in the Terminal area and have migrated as LNAPL in the subsurface to downgradient off-Terminal areas directly south of San Diego Mission Road including the northeast Stadium parking lot. Dissolved petroleum constituents have migrated to downgradient areas in the vicinity of the Stadium and near the nearby San Diego River.

2.1.1 Regional and Local Hydrogeology

2.1.1.1 Hydrostratigraphy

The Mission Valley Terminal is located in Murphy Canyon, which is located within the Mission San Diego Hydrologic Sub Area of the Lower San Diego Hydrologic Subunit, as designated in the San Diego RWQCB Basin Plan (“the Basin Plan”) (CRWQCB, 1994). The Site is adjacent to Murphy Canyon Creek. Murphy Canyon Creek is the western-most tributary to the San Diego River, which discharges into the Pacific Ocean through Mission Bay, which is located about 5 miles west of the Site.

The Mission Valley area geologic units consist primarily of relatively impermeable Pleistocene and Tertiary bedrock formations overlain by permeable Holocene alluvium deposited in channels historically cut by Murphy Creek and the San Diego River. The geologic units, listed from upper stratigraphic units down to the lower bedrock formations, are summarized in Table 2-1. Figure 2.1-2 illustrates the surficial alluvial deposits and the surrounding bedrock formations, including the surrounding mesas.

Locally, geologic materials beneath the on-Terminal and off-Terminal areas include the Tertiary Friars Formation, which is overlain by the Tertiary Stadium Conglomerate. The Friars Formation is described as fine- to medium-grained sandstone containing several sandy claystone beds. In some localities the Friars Formation grades upward into the Stadium Conglomerate, a cobble conglomerate with coarse-grained sandstone matrix, which is conformably overlain by the Mission Valley Formation. Gastil and Higley report that in this location the Friars Formation is fairly well cemented (indurated) and contains a significant fraction of fine-grained and clay minerals (Gastil and Higley, 1977). Boring logs for wells and borings drilled in the on- and off-Terminal area are consistent with this finding.

The Mission Valley Formation is described as a fine- to medium-grained, poorly to moderately sorted sandstone, which is conformably overlain by the Pomerado Conglomerate, a Poway-type (well-rounded, siliceous, metavolcanic stones) conglomerate with lenses of medium-grained sandstone resembling that of the Mission Valley Formation.

Through time, the San Diego River and Murphy Canyon Creek have incised through portions of these formations, exposing them in part within the Terminal area. Surficial materials within Murphy Canyon are composed of Quaternary alluvial deposits of silt, sand, and cobbles derived from bedrock sources. The alluvium thickens from the Terminal toward the San Diego River. Basal gravel is commonly encountered at the contact between Quaternary alluvium and the underlying Friars Formation in the San Diego River Valley. The basal gravel consists of a 3- to 15-foot thick coarser-grained unit composed mostly of sandy gravel, with sub-angular to well-rounded gravel up to 4 inches in diameter and clayey to silty gravel lenses.

Alluvium encountered during drilling and well installations at the Terminal are distinctly of fluvial origin, as indicated by fining upward sequences as well as lenses of clay, silt, sand, gravel, and cobbles.

Interpreted Hydrostratigraphy

An analysis of the geologic materials directly beneath the on- and off-Terminal areas was performed as part of ongoing updates to the numerical groundwater flow and solute transport model (LFR, 2004a, Appendix A). To represent the lithologic characteristics in detail for the model, data from boring logs and aquifer tests were interpolated between boreholes using Geologic Indicator Kriging (GIK). GIK is a methodology for building three-dimensional geologic models, and is performed with kriging algorithms based on the United States Environmental Protection Agency's (U.S. EPA) Geo-EAS geostatistical software (U.S. EPA, 1991). GIK addresses the complexities of the subsurface lithology by using and honoring observed soil texture from points located along the boring logs located within Mission Valley and Murphy Canyon. At the time of the analysis, this included 5,480 lineal feet of interpreted soil textures along 117 boring logs. Figure 2.1-3 presents an oblique view of the boring logs used in the analysis, and Figure 2.1-4 presents the interpolated distribution of the

Friars Formation and overlying alluvium from the GIK analysis. The geologic distributions are based on detailed interpretations of on- and off-Terminal boring logs classified with the Unified Soil Classification System (USCS) (ASTM 1990). Five material types were assigned indicators, including a surficial fill material, three types of alluvium (low, medium, and high hydraulic conductivity), and the Friars Formation sandstone. The alluvium ranges from USCS classifications of clays and silts (CL and ML) up to sands, gravels, sand mixtures, and gravel mixtures (SP, SW, GC, GP, and GW).

Hydraulic conductivity values for the alluvium assumed in the GIK analysis were based on published values for these types of lithologic materials (LFR, 2004a; Appendix A) and from various site-specific aquifer test data. Assigned hydraulic conductivities for the alluvium range from 10 feet per day (ft/d) for clayey fill and other low hydraulic conductivity materials up to 150 ft/d for gravel mixtures and other high hydraulic conductivity materials. A hydraulic conductivity of 1 ft/d was assumed for the Friars Formation, which is consistent with published values for this sandstone formation type (USGS, 1989).

Figures 2.1-5 through 2.1-7 present oblique views of the interpreted hydrostratigraphy that demonstrate the distributions of individual layers in relation to each other. The interpolated material distributions are consistent with the geologic conceptual model of a coarser-grained sequence of sediments (basal gravel) overlying the Friars Formation. This basal gravel unit is expected to exert a significant influence on groundwater flow and transport in the deeper alluvium (Figure 2.1-5). Above the high conductivity alluvium (basal gravel) overlying the Friars Formation, a generally fining-upward sequence occurs, as indicated by the predominance of the medium and low conductivity units in the shallower layers (Figures 2.1-6 and 2.1-7). The occurrence of high conductivity alluvium above the Friars Formation is also consistent with differences in the response in the shallow and deeper portions of the aquifer observed during aquifer testing (LFR, 2002c). In general, the interpreted hydrostratigraphy indicates there are no areally extensive regions of fine-grained material in the central portions of the Mission Valley hydrologic unit, which is consistent with boring log data and the existing MTBE plume geometry. Close inspection of the interpreted hydrostratigraphy indicates a layer of relatively fine-grained silt/clay material is present near the top of the saturated zone in the residual LNAPL area located on- and off-Terminal.

2.1.1.2 Sources and Sinks of Groundwater

The primary sources of recharge to and discharge from the off-Terminal area are represented in the current groundwater flow model (LFR, 2004a, Appendix A). Water recharge to the off-Terminal area occurs as groundwater inflow from the mouth of Murphy Canyon, infiltration of precipitation, infiltration of irrigation water from the Stadium and practice fields (see Figure 2.1-2), mesa front recharge, and seasonal discharges from the San Diego River and unlined portions of Murphy Canyon Creek. In addition, water recharge to the off-Terminal areas occurs as baseflow from upgradient portions of the San Diego River valley (LFR, 2005c). Groundwater discharges from the off-Terminal area as subsurface groundwater flow to downgradient

areas of the San Diego River valley, as seasonal discharge to the surface waters of San Diego River and unlined portions of Murphy Canyon Creek, and via the remedial extraction wells in the northern and northwestern portions of the Stadium parking lot.

2.1.1.3 Magnitude and Direction of Groundwater Flow

Groundwater elevations in the off-Terminal areas for May 2005 are shown on Figure 2.1-8. On average, groundwater levels are approximately 1.59 feet higher than those observed one year ago in May 2004, although prior to these recent increases groundwater levels have declined approximately 5 to 6 feet over the last 10 years.

The direction of groundwater flow changes from predominantly north to south through Murphy Canyon, to a more northeast to southwest direction as the groundwater enters the broader river valley. Groundwater flow directions in this area are also influenced by the remedial extraction wells in the vicinity of the Stadium, with groundwater flowing under the influence of and toward groundwater extraction wells RW-3A through RW-9. The inset on Figure 2.1-8 shows a detailed interpretation of groundwater elevations within the capture area of the extraction system. As indicated in the inset, groundwater flow is pulled south to southwest out of Murphy Canyon into extraction wells RW-35 through RW-37. Additionally, capture of water by extraction wells RW-3A through RW-9 occurs from the eastern side of Murphy Canyon, from Mission Valley, and from mesa-front recharge.

As shown on Figure 2.1-8, groundwater flow outside and southwest of this capture zone continues to be influenced by the extraction system, such that groundwater flow downgradient of the extent of capture is a convergence of western regional flow sub-parallel to the San Diego River channel and southern flow from recharge along the northern edge of Mission Valley west of the Stadium. These converging flow patterns appear to result in a west-southwest groundwater flow direction at the southwestern and downgradient end of the monitoring well network near well cluster R-29.

Downgradient of the Stadium, groundwater flows under a gentler slope, with hydraulic gradients ranging from 0.002 to 0.004 feet per foot (ft/ft). As groundwater approaches the San Diego River, the predominant flow direction is westward, toward the Pacific Ocean.

Groundwater flow velocities can be estimated for the given range of hydraulic gradients, the values of hydraulic conductivity for the alluvium (10 to 150 ft/d), and estimates for effective porosity ranging from 0.25 to 0.3. Given these values, groundwater flow velocities in the areas downgradient of the Stadium range from 0.1 to 2.4 ft/d. These ranges are in general agreement with velocity values in the calibrated groundwater flow model.

2.2 Distribution of Hydrocarbons

Petroleum hydrocarbons are found on the Site as LNAPL, in vapor (soil gas), and dissolved in groundwater. A description of the distribution of hydrocarbons in each of these phases is provided below.

2.2.1 LNAPL Phase

2.2.1.1 *Lateral Extent*

Several phases of investigation have been conducted to assess the horizontal and vertical extent of LNAPL in the off-Terminal area. Methods used to assess the extent of LNAPL have included evaluation of product thickness data in monitoring wells, the magnitude of hydrocarbons in the dissolved phase, LIF data, and soil core data. Figure 2.2-1 shows the historical observation of LNAPL thickness in monitoring wells and the location of the monitoring wells. These separate lines of evidence were used to compile the estimated maximum historical extent of LNAPL at the Site, as illustrated on Figure 2.2-2. (Note: Figure 2.2-2 also shows the estimated maximum extent of LNAPL in the on-Terminal area.)

The following sections discuss and describe the data that were used to develop the understanding of the extent of LNAPL in the off-Terminal area.

Groundwater Data

Separate-phase and residual fuel product has been detected at several locations in the on- and off-Terminal areas. Because benzene readily degrades in groundwater in the Terminal area, as discussed below, it is also a good indicator of proximity to the fuel hydrocarbon source feeding the dissolved plume, particularly where residual product is present but does not show up in monitoring wells. Where benzene in groundwater is noted at concentrations above 1,000 to 10,000 ppb, there is likely a LNAPL source nearby. This interpretive criterion was used to help compile the LNAPL distribution shown on Figure 2.2-2. Detections of LNAPL or residual LNAPL inferred from high benzene concentrations in groundwater have been found throughout the off-Terminal area, from the Terminal boundary to R-11, which is located south of the Terminal in the Stadium parking lot.

Samples of LNAPL were collected in 1992 and 2001 from the manifold area, the Shell lease (former Texaco) area, and the northeastern Stadium parking area (Aqui-Ver and Equilon, 2001). These samples indicate that the LNAPL in the manifold area, along the Terminal access road, and in the northeastern Stadium parking area is of similar composition and is distinct from the LNAPL on the eastern side of the Shell lease area.

LIF Data

The full extent of the LNAPL impacted soil also was characterized using the LIF tool. This tool operates on the principle that fuel hydrocarbons fluoresce when excited using light of a certain wavelength. The tool uses an optical wave guide (e.g., fiber optic cable) to direct laser light on subsurface soils. Fluorescence is observed and quantified via a photo detector. The LIF tool is advanced into the subsurface by direct push so that a continuous log of fluorescence with depth is obtained. Prior to use of the LIF at each location, changes in equipment configuration are accounted for by calibration of the LIF tool to a standard. The LIF response to subsurface fuel hydrocarbon impact is then expressed as a percentage of the response to the standard. The LIF tool was advanced into the subsurface at 77 locations in the off-Terminal areas from 2001 to 2003 (Aqui-Ver and Equilon, 2001; LFR, 2003c). Figure 2.2-2 shows the maximum LIF response at each location and the extent of LNAPL inferred from LIF response of 10 percent of standard or greater in the off-Terminal areas.

Soil Core Data

Soil sampling has been conducted in the on- and off-Terminal LNAPL-impacted areas with samples analyzed by EPA Method 8015 (or similar) for TPH in the gasoline and diesel ranges and at narrower carbon number ranges. Soil concentration data have been used to estimate LNAPL saturation by applying phase-partitioning theory, with resulting estimates generally in the 1 to 2 percent LNAPL saturation range (LFR, in prep). Samples have also been analyzed for LNAPL saturation by the Walkley-Black method, and these data also generally indicate LNAPL saturation in the 1 to 2 percent range. While these saturations may appear to be too low for LNAPL mobility, it is likely that they represent residual saturations that remain after an actively flowing LNAPL front has passed the location.

2.2.1.2 Vertical Distribution of LNAPL

LIF and soil core data also have been used to assess the vertical distribution of LNAPL within the soil column. Vertical extent data inferred from LIF and soil core data are presented on Figures 2.2-3 (top surface of LNAPL) and 2.2-4 (bottom surface of LNAPL). Included on these figures are the top and bottom elevations of the LNAPL-impacted soils as inferred from soil sample profiles collected in the off-Terminal area. Also included are the highest and lowest elevations of LNAPL observed in monitoring wells, i.e., the highest elevation historically observed in a monitoring well for the air/LNAPL interface and the lowest elevation historically observed in a monitoring well for the LNAPL/water interface. Both the soil profile data and the historical range of LNAPL elevations correlate well with the results of the LIF survey.

2.2.1.3 LNAPL Composition

Soil samples collected in May 2005 from six locations and at multiple depths in the off-Terminal area were analyzed for carbon fractions in the C₄₋₅, C₆, C₇, C₈, C₉, C₁₀,

C₁₁, C₁₂, C₁₃-C₁₄, C₁₅-C₁₆, C₁₇-C₁₈, C₁₉-C₂₀, C₂₁-C₂₂, C₂₃-C₂₄, C₂₅-C₂₆, and C₂₇-C₂₈ ranges. These data show the combined effects of original release type (gasoline, diesel, jet fuel or transmix), mixing of different releases, and weathering. The composition of each soil sample is shown graphically in Appendix A. Also shown are several rapid optical scanning tool (ROST) response spectra. The ROST is the specific type of LIF tool that was used at the Terminal. It records LIF response at several different wavelengths, with fluorescence emitted at shorter wavelengths being more typical of lighter aromatic and short chain hydrocarbons and longer wavelengths being more typical of heavier, longer-chain hydrocarbons.

2.2.2 Petroleum Hydrocarbons in Soil Gas

The primary source of vapor-phase petroleum hydrocarbons in soil gas in the on-Terminal area is off-gassing from the residual LNAPL discussed above. Based on this source, the distribution of vapor-phase petroleum hydrocarbons is likely coincident with the distribution of LNAPL. The soil gas samples collected throughout the Terminal down into the northern portion of the Stadium parking lot by Simon Hydro-Search (1992), TRC (2000), and (ENVIRON and LFR ,2005) indicate that high concentrations of soil gas exist in the Stadium parking lot. Soil vapor monitoring conducted as part of SVE performance evaluation has shown total VOC concentrations in soil gas as high as 12,000 ppmv (LFR, 2005c). Generally, total VOC concentrations in soil gas are greater at depth (near the LNAPL source) and diminish closer to the ground surface.

2.2.3 Petroleum Hydrocarbons in Groundwater

Similar to soil gas, the primary source for dissolved-phase petroleum hydrocarbons is dissolution from the residual LNAPL. As such, dissolved-phase hydrocarbons in groundwater in the off-Terminal area are most highly impacted in areas coincident with the LNAPL-impacted soil. Figure 2.2-5 shows the extent of benzene-impacted groundwater in the on-Terminal and directly off-Terminal areas as of May 2005. Benzene is currently found from the property boundary south to well cluster R-36 and west to well cluster R-44. As discussed above, dissolved benzene is generally found in close proximity to LNAPL-impacted soil, though in the off-Terminal area south of the Shell lease area, it does not extend as far east as the interpreted extent of LNAPL. This is likely due to the diesel nature of the releases in this area. Figure 2.2-6 shows the extent of MTBE-impacted groundwater at the Site as of May 2005. MTBE is observed from the property boundary as far downgradient (to the southeast) as well cluster R-28 in May 2005, and has been observed as far south as well cluster R-29. High concentrations (in the ppm range) are observed at the property boundary and in the area of the LNAPL-impacted soil. Again, the highest concentrations appear to be confined to the western portion of the LNAPL plume near the property boundary; however, MTBE is less degradable than benzene (see below), so the MTBE plume is more laterally diffuse. Figure 2.2-7 shows the extent of TBA-impacted groundwater at the site as of May 2005. TBA is a gasoline component and a product of MTBE degradation. The main TBA plume, like the MTBE plume, extends from the property boundary southeast to

well cluster R-21. Figure 2.2-8 shows the extent of groundwater impacted by total oxygenates in the on-Terminal and directly off-Terminal areas as of May 2005. Except for a few observations of other oxygenates at very low concentration, MTBE and TBA are the only gasoline oxygenates observed at the Terminal.

2.2.4 Surface Water

No surface water impacts have been observed in either the San Diego River or Murphy Canyon Creek. This finding is consistent with the general lack of hydraulic continuity between surface and groundwater in the off-Terminal area. Off-Terminal, Murphy Canyon Creek appears to be a losing reach prior to discharge into the San Diego River.

2.2.5 Impact to Underground Utilities

Several underground utility alignments exist in public rights-of-way in the vicinity of the contaminant plume in Murphy Canyon and Mission Valley. These utilities are typically installed and buried in trenches that are less than 10 feet deep. Depths to groundwater and or LNAPL impacted soil are typically greater than 10 feet below ground surface (bgs), so there is little or no chance that utilities will come in contact with contaminated liquids. There is also little or no chance that utility trenches will serve as preferential pathways for transport of contaminants.

2.3 Hydrocarbon Fate and Transport Mechanisms

The fate and transport of hydrocarbons in the LNAPL, vapor, and dissolved phases generally starts with transport of LNAPL, then volatilization to soil gas and dissolution to groundwater or surface water, and/or transport via groundwater to surface water. In all these phases, natural attenuation processes act to reduce the mass and concentrations of hydrocarbons over time and with distance. The mechanisms of transport and natural attenuation specific to each phase are discussed in more detail below.

2.3.1 LNAPL

2.3.1.1 *Mobility of LNAPL*

Fate and transport of LNAPL is governed by several mechanisms. Mobility of LNAPL, which is a function of pore fluid (water, LNAPL, and soil gas) saturations, is its potential to be moved. The flow of LNAPL will also depend on the presence of a gradient in the LNAPL. A horizontal gradient may be due to gradients within a LNAPL “lens” on an inclined water table or may be due to water flowing past and through the submerged portion of the LNAPL “lens”. Vertical gradients in the LNAPL may also be present if the LNAPL is still actively draining through the vadose zone and has not come to a semi-stable distribution near the water table. Water table fluctuations will also induce vertical gradients in the LNAPL as it is induced to further drain or buoyantly flow upward back toward a semi-stable distribution near to the water table.

This type of vertical movement will leave “smear” zones where product is residually trapped by capillary forces and dead end pores both above and below the water table.

LNAPL in the subsurface does not, in general, fully saturate the aggregate pore space. Fuel hydrocarbons are generally non-wetting fluids and therefore, in the range of pore sizes, the smallest pores will be occupied by water (the wetting fluid), larger pores will be occupied by LNAPL, and soil gas (where present) will occupy the largest pores. The capillary equilibrium of water, LNAPL, and soil gas and the mobility of each phase in a porous medium has been theoretically described by Burdine (1953), Brooks and Corey (1964), Mualem (1976), and van Genuchten (1980). The actual residual saturation (also called irreducible or immobile saturation) is highly dependent upon the previous saturation history. (These concepts were recently discussed in more detail by Adamski et al., 2003. Research by Johnson and Adamski, 2005, has shown a linear relationship between maximum and residual saturation.)

LNAPL in the on-Terminal area appears to be generally at or near residual saturation (LFR, 2005d). Therefore the mobility of the LNAPL is likely to be very limited both vertically and laterally, limiting the potential for further expansion of the volume of LNAPL-impacted soils. Given site heterogeneities in sediment type and LNAPL distribution, there may be localized areas where LNAPL saturations and mobility are sufficient to allow movement of LNAPL under the natural gradients at the Site. However, it is unlikely that these localized areas are sufficiently large to cause significant LNAPL mobilization or expansion. It is more likely that only localized redistribution of LNAPL may occur in response to changing hydrologic conditions.

2.3.1.2 Weathering of LNAPL

Weathering or natural attenuation of the LNAPL occurs through two mechanisms: volatilization and dissolution. For the exposed (unsubmerged) portion of the residual LNAPL, volatilization is likely the most significant weathering mechanism because of the high volatility of many fuel hydrocarbon constituents. The fate of the resulting soil vapors is discussed below. Dissolution in groundwater and vadose zone pore waters is likely to be less significant than vaporization because of the low solubility of many fuel hydrocarbon components. Percolation of vadose zone pore waters, and thus weathering by dissolution, is likely less significant under buildings or paved areas such as the Terminal access road than in areas where soils are exposed to infiltration. Also, the low precipitation rates in the San Diego area are likely to make contributions to weathering by dissolution in percolating vadose zone water less significant than other weathering mechanisms. For the submerged portions of the residual LNAPL, dissolution in groundwater is likely a significant weathering mechanism, especially in the areas where LNAPL resides in coarser-grained soils and groundwater flow transports dissolved chemicals away from the LNAPL. The fate of the resulting dissolved-phase plume is discussed below.

The longevity of the LNAPL is affected by several factors. The volatile fractions of the LNAPL may be depleted in coarse-grained vadose zone soils in years to decades under natural conditions, or much faster if weathering is accelerated by active SVE. The

lower volatility fractions are likely to remain in the soil for a very long time; however, these fractions tend to pose a low threat to groundwater quality, and tend to produce low to undetectable soil gas concentrations. In finer-grained vadose zone soils, volatilization is likely to be a much less significant attenuation mechanism because of the low intrinsic permeability of these soils, coupled with a low relative permeability to air due to lower air-filled porosity. Localized impacts in these soils may persist for very long periods and may continue to be a source of sufficient strength to be of concern for localized impacts to soil gas (LFR, 2004a, Appendix F). Dissolution from submerged LNAPL will tend to deplete the soluble constituents and leave the less soluble constituents. Dissolution is a relatively slow process under natural conditions, and the soluble constituents in submerged LNAPL may require long time periods to attenuate to the point where they no longer pose a threat to groundwater quality (LFR, 2004a, Appendix D).

2.3.2 Petroleum Hydrocarbons in Soil Gas

Soil gas provides a transport pathway from impacted soils and groundwater to the land surface. Advective soil gas transport is governed by the intrinsic and relative permeability of the vadose zone soils, soil porosity, and a driving pressure gradient. In the shallow vadose zone soils at the Site, the only significant natural pressure gradients are expected to be from barometric pressure changes. Diffusive soil gas transport depends on the air filled porosity and the soil gas concentrations gradients. Typically, soil gas concentrations are highest deeper in the soil column near the source zone, and lowest near the ground surface, driving diffusive transport toward the land surface.

The fate of hydrocarbon vapors in soil gas under natural conditions is controlled by several natural attenuation processes. Hydrocarbon vapors may dissolve in vadose zone pore water and adsorb to soil. This can result in transport of hydrocarbons from soil gas to groundwater, and it may also provide a temporary sink for the hydrocarbons that will eventually desorb and revolatilize to soil gas. Redistribution of the hydrocarbon vapors by diffusion or advection to the atmosphere will result in permanent removal. Destruction of hydrocarbons in the vadose zone by biodegradation may also occur within the vadose zone pore water. Biodegradation in the vadose zone depends on dissolution of vapors into pore water and on the availability of oxygen and nutrients. Because of the availability of oxygen in the vadose zone, especially at shallow depths below the ground surface under natural conditions, biodegradation in the vadose zone can be a significant contributor to overall natural attenuation of hydrocarbons. Under induced air flow conditions such as SVE or soil venting, the transport of atmospheric concentrations of oxygen deeper in the vadose zone and closer to the LNAPL source of vapors can enhance biodegradation.

2.3.3 Petroleum Hydrocarbons in Groundwater

As discussed above, groundwater in the off-Terminal area tends to flow through very hydraulically conductive soils under a moderate hydraulic gradient. Within the area of hydraulic capture, groundwater flow and resulting transport of contaminants is to the

groundwater extraction wells. Downgradient of the area of hydraulic capture, the transport of contaminants in groundwater may, for conservative solutes, be as rapid as approximately 2 ft/day in the coarser-grained portions of the alluvium and under average hydraulic gradient conditions. At these velocities, conservative species in groundwater would be transported from the transect of monitoring well clusters R-63 through R-70 to the most recent position of observed MTBE in groundwater above reporting limits at monitoring well cluster R-28 (0.52 micrograms per liter [$\mu\text{g/l}$] in May 2005), a distance of approximately 2,500 feet in about 1,250 days (about 3.5 years). In the less hydraulically conductive portions of the alluvium, transit of this distance, again under average hydraulic gradient conditions, may take approximately 5,000 days (about 14 years). An estimate of the mass flux across the transect of well clusters R-63 through R-70 concluded that approximately 8 g/day of MTBE and TBA was transported by groundwater in May 2005 (LFR, 2005c).

Attenuation of contaminants in groundwater occurs via several physical and biological mechanisms. Some of these mechanisms redistribute contaminants, and some transform and/or destroy (completely mineralize) contaminants. Physical mechanisms that redistribute contaminants include diffusion and dispersion, which dilute mass within larger volumes of groundwater; volatilization, which redistributes the contaminants to the soil gas; and sorption, which redistributes the contaminants to the solid phase (soil). Of these physical mechanisms, the only one that ultimately reduces the mass in the groundwater is volatilization. Mass that is sorbed may desorb back to the groundwater. The only significant biological mechanism that transforms and/or destroys contaminants is biodegradation.

In the on-Terminal area and the off-Terminal LNAPL-impacted area, the highest concentration portions of the groundwater plume underlie LNAPL-impacted soil, so volatilization is not likely to be a significant mechanism for reduction of dissolved contaminants in groundwater. Biodegradation, however, is most likely responsible for some contaminant destruction. Indicators of biological activity that are observed in the on-Terminal groundwater include increased concentrations of methane, alkalinity, and ferrous iron with respect to background conditions, and decreased concentrations of DO, nitrate, and sulfate with respect to background conditions (LFR, 2005c). These conditions are indicative of reducing, anaerobic, and methanogenic conditions in groundwater. Biodegradation likely includes destruction of the aliphatic and aromatic fractions (including BTEX) of the petroleum waste constituents. Evidence of biodegradation of these fuel hydrocarbon components is observed near the perimeters of the LNAPL-impacted regions, where BTEX concentrations tend to decrease from milligrams per liter [mg/l] levels to below the reporting limits within about 200 feet. Conversely, MTBE concentrations decrease less rapidly with distance away from the LNAPL-impacted soil. Biodegradation of MTBE and TBA may also occur, although recent research suggests that biodegradation of MTBE and TBA may be relatively slow, particularly under anaerobic conditions (Smith and Hyman, 2004). Significant concentrations of TBA in groundwater are observed in the on-Terminal area, often in the same order of magnitude and sometimes exceeding the MTBE concentrations. The ratio of TBA to MTBE in groundwater in equilibrium with fresh oxygenated gasoline containing MTBE is from 0.02 to 0.2. This ratio is exceeded in most locations where

both chemicals are detected in groundwater, which suggests that incomplete biodegradation of MTBE to TBA is occurring at the Site.

Natural attenuation of MTBE and TBA downgradient of the residual LNAPL/source zone can be investigated through various lines of evidence. The primary line of evidence is the interpreted stability, expansion or contraction of the MTBE and TBA plumes. Secondary indicators of biodegradation of MTBE and TBA are geochemical indicators of biological activity. Secondary indicators of natural attenuation of MTBE include the presence of TBA, which can be produced by MTBE biodegradation. A third line of evidence for natural attenuation of MTBE is the presence of microbes capable of MTBE metabolism.

The primary line of evidence for natural attenuation is the stability, expansion or contraction of a contaminant plume. Beyond the extent of capture of the groundwater extraction system (from well cluster R-47 and to the southwest), the lateral extent of the MTBE plume has been better defined just south of the Stadium with the addition of well clusters R-63 through R-70. Since the initiation of operation of the expanded groundwater extraction system (RW-8 and RW-9) in February 2003, the groundwater flow system southwest of the Stadium has been relatively stable; no large changes to the groundwater extraction system have occurred during this time period. Even with the large increases in groundwater elevations observed during the fourth quarter of 2004 and the first quarter of 2005, the groundwater flow patterns have remained generally the same. In general, the MTBE concentrations observed in well R-17 and well clusters R-21, R-23 through R-31, and R-46 have been stable or have varied with no clear trend over the past nine quarters. Decreasing concentrations of MTBE have been observed over the last 10 quarters (since February 2003) in wells R-21AM, R-25AS, R-28AS, and R-28FS. Detectable concentrations of MTBE (above the laboratory reporting limit) were observed in R-28AM for the seventh quarter but have decreased from peak levels observed in 2004 (from 7.8 $\mu\text{g/l}$ in February 2004 to 0.52 $\mu\text{g/l}$ in May 2005). Increasing MTBE concentrations were observed in well R-23AM from May 2002 to May 2005 and in well R-23AD from August 2001 to May 2005. Over the longer term (for approximately the previous three years), reductions in MTBE concentrations have been observed in all wells in cluster R-21, as well as in wells R-25AM, R-26AM, and R-28AS.

TBA, a degradation product of MTBE, and other organic and inorganic chemicals can be used as secondary lines of evidence for the occurrence of biodegradation. While TBA is a product of MTBE biodegradation, it is also present in fresh gasoline. Analysis of MTBE to TBA ratios can give insight into the occurrence of natural attenuation. Elevated concentrations of total alkalinity, methane, and ferrous iron, with respect to background concentrations, are indicative of biologically mediated respiration, methanogenesis, and ferric iron reduction, respectively. Depletion of DO, nitrate, and sulfate, with respect to background concentrations, is indicative of biologically mediated aerobic oxidation, nitrate reduction, and sulfate reduction, respectively. These patterns or geochemical “footprints” are indicative of biological activity.

The TBA to MTBE ratio in fresh gasoline is from 0.02 to 0.2 (Shell, 2003). Ratios greater than this may be indicative of TBA generation as a product of MTBE degradation. TBA:MTBE ratios observed in the off-Terminal area indicate a change in TBA:MTBE ratio over that of fresh gasoline that is consistent with biotransformation of MTBE to TBA. In all wells in cluster R-21 and in wells R-25AS, R-26AM, and R-28AS, where significant MTBE reductions have been observed, TBA has been observed to persist at concentrations that are approximately equal to the previously observed MTBE peak concentrations. Within the area of influence of the groundwater extraction system, wells R-2, R-12, SFPP-8, and T-6 through T-8 appear to exhibit similar behavior, and as noted above, wells R-42AS, R-43AS, and R-44AS appear to be undergoing similar transformations.

Figure 2.3-1 shows MTBE, TBA, and natural attenuation indicator concentrations in wells along the horizontal and vertical total oxygenates plume axis (i.e., in a line of wells showing the highest concentrations of MTBE plus TBA, with only one well selected from each well cluster). At the upgradient (northeast) end of the line of wells, MTBE concentrations are more than three orders of magnitude higher than at the downgradient (southwest) end. In addition to the concentrations of natural attenuation indicators observed in wells along the MTBE plus TBA plume axis, Figure 2.3-1 also shows the same parameters for well R-19, which is located northwest of the plume axis and has historically shown non-detectable concentrations of all contaminants of concern. Analyte concentrations in R-19 are believed to be indicative of background groundwater quality in the Mission Valley Terminal and Qualcomm Stadium area. Similar concentrations for all analytes were observed this quarter in well S-12. This well is at the northern end of the Terminal, and chemicals of concern (COCs) have not been observed in it since at least March 2000, so it may also represent background groundwater quality in Murphy Canyon. Elevated alkalinity along the plume axis with respect to the background concentration at well R-19 is believed to be indicative of biological activity.

In general, concentrations of ferrous iron, nitrate, methane, and sulfate observed in the second quarter of 2005 are similar to those observed over the past nine quarters. At well R-43AS, which is near the source zone, conditions are strongly indicative of highly reducing conditions resulting from anaerobic biological activity; methane is more than two orders of magnitude higher than background, ferrous iron is approximately two orders of magnitude higher than background, alkalinity is elevated, and nitrate and sulfate are both significantly lower than background. At well R-44AM, where TPHg and BTEX concentrations are approximately two orders of magnitude lower, sulfate concentration rebound to near background and methane and ferrous iron concentrations drop, indicating that the highly reducing conditions in the residual LNAPL source area do not persist very far outside that area. These trends continue at well R-38AS, which is further from the residual LNAPL source area but also appears to be outside the core of the plume. At wells R-40AS, R-42AS, and R-47AM, concentrations of ferrous iron and methane above background suggest that these locations are still within the anaerobic, reductive shadow from the upgradient residual LNAPL source area. At wells R-69AM, R-21FS, R-25FS, and R-23AM, where ferrous iron and sulfate are near background concentrations, nitrate and DO

concentrations below background continue to indicate an anaerobic, slightly reducing environment. Although elevated methane concentrations are observed at R-25FS and R-23AM, the other parameters are not suggestive of methanogenesis in the area around the wells, and the methane may be from a more distant source. At well R-28AM, nitrate concentration above the reporting limit and DO concentration above background suggest an aerobic, oxidative environment; however, these indications are not present further downgradient at well R-29AS.

A tertiary line of evidence for natural attenuation of MTBE is evaluation of the groundwater and aquifer materials for the presence of organisms capable of MTBE metabolism. An aerobic microcosm study was conducted using three samples of alluvial aquifer material from locations approximately adjacent to the screened portions of wells R-48AS, R-48AM, and R-48AD and a sample of San Diego River sediment from a location approximately 400 feet west of well cluster R-28 (LFR, 2004b). Analytical results indicate that, under laboratory conditions, aerobic degradation rates for the alluvial aquifer materials, equivalent to a first-order half-life of 21 to 79 days, are faster than the maximum degradation rates inferred from the monitoring data (LFR, 2004g). Much higher rates were observed in the microcosm sample from the river sediments. The microcosm study demonstrates the existence of aerobic MTBE degraders in the alluvial aquifer and river sediment materials; however, the results cannot be used to infer specific rates of degradation under field conditions.

2.3.4 Surface Water

Surface waters may intercept contaminated groundwater in the off-Terminal areas. at the Site but are unlikely to transport the contaminants very far because of natural attenuation in the benthic sediments. Murphy Canyon Creek appears to be a losing stream in the vicinity of the off-Terminal area. The San Diego River is generally a gaining stream in the off-Terminal area near the Stadium, though overbank storage may occur during periods of high river stage. Murphy Canyon Creek in the off-Terminal area lies east of any observed groundwater quality impacts. The San Diego River may intercept contaminated groundwater to the southwest of the Stadium in the vicinity of monitoring well clusters R-23, R-25, R-26, R-28, R-29, and R-30. Historically, the AS wells in these clusters have shown low to non-detect concentrations of MTBE and TBA (tens of $\mu\text{g/l}$). Benthic sediments in the San Diego River have been shown to contain microorganisms capable of rapid aerobic biodegradation of MTBE (Skow, 2004). Biodegradation of MTBE in these sediments may be contributing to the lack of any significant observed increases in MTBE concentrations in the San Diego River (LFR, 2003c).

2.4 Potential Off-Terminal Receptor Exposure Pathways

The selection of the potentially complete current and future exposure pathways in the off-Terminal area consists of an evaluation of the potential populations that may be exposed to contamination (receptors), and identification of the mechanisms by which those populations may be exposed (exposure pathways).

Once the potential receptors are identified, the complete exposure pathways by which individuals in each of these potentially exposed populations may contact chemicals present in environmental media are determined. An exposure pathway is defined as “the course a chemical or pollutant takes from the source to the organism exposed” (U.S. EPA, 1988). An exposure route is “the way a chemical or pollutant enters an organism after contact” (U.S. EPA, 1988). A complete exposure pathway requires the following four key elements:

- chemical source
- migration route (i.e., environmental transport)
- an exposure point for contact (e.g., soil, air, or water)
- human exposure route (e.g., inhalation or ingestion)

An exposure pathway is not complete unless all four elements are present.

The following sections summarize the evaluations of receptors and receptor pathways, including a description of the beneficial uses of off-Terminal impacted environmental media, the potential populations that may be exposed to contamination via these media, and the mechanisms by which those populations may be exposed.

2.4.1 Groundwater

2.4.1.1 Designated Beneficial Uses

Beneficial uses for the Mission San Diego Sub Area of the Lower San Diego Hydrologic Unit are outlined in the San Diego Basin Plan (CRWQCB, 1994). There are both potential and existing designated beneficial uses for this hydrologic unit. Existing beneficial uses include agricultural and industrial use. Municipal supply is designated as a potential beneficial use.

2.4.1.2 Identification of Existing and Future Uses

No current groundwater withdrawals for municipal, agricultural or industrial uses from the shallow unconfined aquifer occur within the extent of the delineated groundwater plume or within 1 mile downgradient of the Terminal. Groundwater within this area is not currently used due to the high background concentrations of total dissolved solids (TDS) and ions. Magnesium and sulfate are high for domestic use; chloride and TDS concentrations are high for domestic and irrigation use (California Department of Water Resources [CDWR], 2002). The Basin Plan acknowledges this poor background groundwater quality by assigning a water quality objective of 3,000 mg/l for TDS in groundwater within the Mission San Diego Hydrologic Sub Area, which contains lower Mission Valley and its adjacent drainage areas. Most other groundwater within San Diego County is assigned a water quality objective for TDS of 1,500 mg/l (CRWQCB, 1994).

The City of San Diego currently plans to develop the groundwater of Mission Valley for municipal supply. Although the City's plans regarding well locations, the number of extraction wells, and extraction rates are uncertain, Addendum No. 5 to CAO 92-01 requires cleanup of the off-Terminal areas by the year 2013.

2.4.2 Surface Water

2.4.2.1 Designated Beneficial Uses

As designated in the Basin Plan, beneficial uses for both the San Diego River and Murphy Canyon Creek include agricultural, industrial, recreation, warm water fisheries, wildlife habitat, and rare species habitat (CRWQCB, 1994).

2.4.2.2 Identification of Existing and Future Uses

All designated uses for the creek as outlined in the Basin Plan are existing uses. In addition, remediated groundwater from the KMED groundwater extraction and treatment system is permitted to discharge to Murphy Canyon Creek under CRWQCB Order No. 2001-96, NPDES Permit No. CAG919002.

2.4.3 Soil Gas and Soil

The presence of chemicals in subsurface soil in the off-Terminal area is associated with the LNAPL smear zone where LNAPL has flowed horizontally at and near the water table. The smear zone is the result of an oscillating groundwater table and, due to the conservative nature of risk evaluations on groundwater sources, analysis of vapor risk due to a groundwater source accounts for emissions from this smear zone. As a consequence, subsurface soil is not considered a separate source from groundwater for the purposes of estimating vapor emissions to indoor and ambient air in the risk assessment. Further, as the depth to the smear zone in the residual LNAPL area is approximately 18 feet bgs, direct contact with contaminated soil (i.e., the smear zone located directly above the groundwater table) is not considered a complete exposure pathway.

2.4.4 Receptor Exposure Scenarios

All individuals at the Stadium are potential receptors. Since the risk assessment addressed the most frequently exposed individuals, the potential exposures and risks to all other receptors will be lower than the receptors evaluated in the risk assessment. Potentially exposed populations quantitatively evaluated in the risk assessment include Stadium workers, Stadium visitors, construction/utility maintenance workers, and recreational users of the San Diego River. Players have not been quantified, as they are not considered a critical (more frequently exposed) population.

As there is no direct contact with contaminated soils or groundwater under the current scenario, the potentially complete pathways for the Stadium workers and Stadium visitors include inhalation of volatile chemicals in indoor or ambient air and perception of odor. Surface water exposures that are potentially complete include exposures to recreational users of the San Diego River (dermal contact), and to sensitive ecological receptors that inhabit the San Diego River.

Under the future scenario, the potentially complete exposure pathways for the Stadium workers, Stadium visitors, recreational users of the San Diego River, and sensitive ecological receptors in and/or near the San Diego River are the same as for the current scenario.

Future construction workers have been evaluated during both shallow (less than 5 feet) and deep (less than 10 feet) trenching scenarios. For both shallow and deep trenching, potentially complete pathways for the construction worker include inhalation of volatile chemicals in ambient trench air and perception of odor. In addition, as groundwater is as shallow as approximately 6 feet bgs in the Stadium parking lot closer to the San Diego River, it is assumed that a construction worker involved in deep trenching in this area could directly contact groundwater. However, this exposure mechanism would likely be minimized due to the required removal of water from working excavations.

Future potable uses of groundwater are a potential future exposure pathway. As stated above, the CAO requires groundwater be remediated to background quality or to the quality that is technically feasible. To assess future impacts to potential users, current concentrations of COCs in groundwater were compared to proposed water quality objectives for groundwater.

3.0 OFF-TERMINAL CORRECTIVE ACTION OBJECTIVES

The overall objectives of off-Terminal corrective action are, to the extent technically practicable, to remove residual LNAPL from subsurface soil and groundwater as soon as practicable, and no later than December 31, 2010 (CRWQCB, 2005). In addition, concentrations of dissolved-phase petroleum hydrocarbon waste constituents are to be reduced to applicable water quality objectives as soon as practicable, and no later than December 31, 2013.

Addendum No. 5 to Cleanup and Abatement Order 92-01 states that concentrations of dissolved-phase petroleum hydrocarbon waste constituents must be reduced to background water quality conditions as soon as practicable, and no later than December 31, 2013. It also states that if cleanup to background water quality conditions is technologically or economically infeasible, alternative groundwater cleanup levels greater than background may be proposed to the CRWQCB, supported by a technical evaluation. Alternative cleanup levels shall be sufficiently stringent to ensure that all groundwater in the affected water body will meet applicable water quality objectives needed to protect present and anticipated beneficial uses of waters, including both primary and secondary Maximum Contaminant Levels (MCLs), and not

result in water quality less than that prescribed in the Basin Plan (CRWQCB, 1994). In addition, State Water Resources Control Board (SWRCB) Resolution 92-49 states that cleanup levels may be less stringent than background if they are consistent with the maximum benefit to the people of the State, do not unreasonably affect present and anticipated beneficial uses, and do not result in water quality less than that prescribed in Water Quality Control Plans and Policies (SWRCB, 1996).

While the Basin Plan and the CAO indicate the CRWQCB's preference for restoration of background water quality concentrations in groundwater in the off-Terminal area, cleanup of groundwater to background water quality conditions is neither technologically nor economically feasible. Therefore, proposed alternate cleanup levels for off-Terminal groundwater include primary MCLs, secondary MCLs, and taste-and-odor thresholds for chemicals with no established secondary MCL. The following technical evaluation provides the basis for this conclusion, and the rationale for the proposed alternate cleanup levels.

Background Water Quality

Background concentrations of COCs in groundwater are typically less than standard laboratory detection limits. Recent studies of shallow groundwater quality throughout California, using special high-resolution analytical methods with extremely low reporting limits, indicate that non-zero background concentrations of MTBE do frequently occur in urban settings such as the Mission Valley area, and are typically found in concentrations of a few tenths of a microgram per liter ($\mu\text{g}/\text{l}$ or ppb). For example, MTBE was detected above a laboratory reporting limit of $0.17 \mu\text{g}/\text{l}$ in 14 percent of 178 active water supply wells in the Los Angeles basin, with a median detected concentration of $0.18 \mu\text{g}/\text{l}$ (Shelton et al., 2001). However, from a practical standpoint, with the use of standard laboratory analytical techniques, these background concentrations of MTBE are indistinguishable from zero.

Technical and Economic Feasibility of Achieving Background Water Quality in Off-Terminal Groundwater

Subsurface conditions in the on- and off-Terminal areas include heterogeneous conditions and extensive zones of residual LNAPL. These conditions increase the difficulty of cleanup, regardless of the remediation technology (NRC, 1994). These difficulties are exacerbated at relatively low cleanup goals, such as cleanup to background or complete restoration. Experimental work on MTBE dissolution from a residually trapped LNAPL source indicates that, under heterogeneous field conditions, MTBE may be released very slowly from source zones, which can greatly extend the longevity of MTBE source zones and plumes (Rixey and Joshi, 2000).

In-situ remedial technologies such as SVE and groundwater extraction tend to exhibit diminished effectiveness over time as mass removal becomes mass-transfer limited. Over time, as the portions of the subsurface in contact with flowing soil gas or groundwater become cleaned up, removal of the remaining contaminant mass becomes

diffusion limited. Additional mass removal depends on diffusion of contaminants from stagnant (bypassed) higher-concentration zones towards the cleaned-up zones having greater rates of gas or water flow. As cleanup in the off-Terminal area progresses, diffusion-limited conditions are expected to occur in finer-grained soils and zones of residual trapped LNAPL present in portions of the off-Terminal area.

These site-specific conditions indicate that the chances of achieving non-detectable concentrations at all subsurface locations via in-situ remedial technologies are very low. Conservative designs can increase overall remedial effectiveness and reduce (but not eliminate) the uncertainty associated with achieving background water quality. Extended, indefinite operation of a conservatively designed in-situ remedial technology (such as SVE) may eventually remove all of the soluble petroleum hydrocarbons from the target remedial zone; however, it would not be an economically feasible strategy.

Ex-situ soil removal and treatment methods are economically infeasible due to the presence of large volumes of clean overburden combined with roadways, utilities, and the Stadium parking lot overlying portions of the off-Terminal source zone and groundwater plume. The potential impacts on land use, traffic, and the logistical challenges of staging large volumes of excavated soil within a space-limited and access-limited area all contribute to the economic infeasibility of ex-situ soil treatment alternatives.

Proposed Alternate Cleanup Levels

The Basin Plan states that groundwater in the Mission San Diego Hydrologic Sub Area is designated for use as Municipal or Domestic Supply. For the COCs (BTEX and fuel oxygenates), water quality objectives for Municipal and Domestic Supply are typically more stringent than for other potential beneficial uses, such as Agricultural Supply or Industrial Service Supply and Process Supply (Marshack, 2003). To be conservative, only water quality objectives applicable to Municipal and Domestic Supply (potable uses) have been considered for development of proposed cleanup levels for the off-Terminal area. The Basin Plan also includes the narrative objective that “Waters shall not contain taste or odor producing substances at concentrations which cause a nuisance or adversely affect beneficial uses.” Therefore, the following alternate groundwater cleanup levels are proposed. Reduce the concentration of each dissolved-phase petroleum hydrocarbons to the most stringent of the following target concentrations: primary MCLs, secondary MCLs, and taste-and-odor thresholds for chemicals with no established secondary MCL, as soon as practicable and no later than December 31, 2013. Dissolved-phase petroleum hydrocarbon waste constituents include, but are not limited to, BTEX, oxygenates (e.g., MTBE), TPH, and degradation products (e.g., TBA).

The Basin Plan (CRWQCB, 1994) does not contain specific numerical criteria for MTBE in groundwater. Since the Basin Plan was last modified, California has adopted a primary drinking water MCL for MTBE of 13 $\mu\text{g}/\text{l}$, based on health concerns, and a secondary MCL of 5 $\mu\text{g}/\text{l}$, based on aesthetic (odor) criteria. Therefore, the most

stringent water quality objective proposed for MTBE in groundwater in the off-Terminal area is 5 $\mu\text{g/l}$.

No primary or secondary MCLs have been promulgated for TBA. The California Department of Health Services (DHS) has identified an action level of 12 $\mu\text{g/l}$ for TBA. Action levels are health-based advisory levels established by DHS for chemicals in drinking water that lack MCLs (Cal/EPA, 2002). Therefore, the proposed water quality objective for TBA in off-Terminal groundwater is 12 $\mu\text{g/l}$.

The California primary MCLs for BTEX constituents are 1 $\mu\text{g/l}$ for benzene, 150 $\mu\text{g/l}$ for toluene, 300 $\mu\text{g/l}$ for ethylbenzene, and 1,750 $\mu\text{g/l}$ for xylenes. The primary MCL for ethylene dibromide (EDB) is 0.05 $\mu\text{g/l}$. Federal secondary MCLs, based on taste and odor considerations for drinking water, are 40 $\mu\text{g/l}$ for toluene, 30 $\mu\text{g/l}$ for ethylbenzene, and 20 $\mu\text{g/l}$ for xylenes. Benzene has no established State or Federal secondary MCL; however, a taste and odor threshold of 170 $\mu\text{g/l}$ has been identified for benzene in drinking water (Amoore and Hautala, 1983). Therefore, 1 $\mu\text{g/l}$ is proposed as the most stringent water quality objective for benzene in groundwater for the off-Terminal area. The following table summarizes the proposed cleanup levels for selected soluble petroleum hydrocarbons in the off-Terminal area:

Chemical	Proposed Cleanup Level	Basis
MTBE	5 $\mu\text{g/l}$	Secondary MCL
TBA	12 $\mu\text{g/l}$	DHS Health-Based Advisory Levels
Benzene	1 $\mu\text{g/l}$	Primary MCL
Toluene	40 $\mu\text{g/l}$	Secondary MCL
Ethylbenzene	30 $\mu\text{g/l}$	Secondary MCL
Xylenes	20 $\mu\text{g/l}$	Secondary MCL
Ethylene Dibromide	0.05 $\mu\text{g/l}$	Primary MCL

The proposed cleanup levels are sufficiently stringent to ensure that groundwater quality in the off-Terminal area will not unreasonably affect present and anticipated beneficial uses of waters, and will result in water quality consistent with that prescribed in the Basin Plan (CRWQCB, 1994). The proposed cleanup levels for off-Terminal groundwater are consistent with the designated beneficial uses of groundwater and surface water for the Mission San Diego Hydrologic Sub Area, and the applicable water quality objectives (including narrative objectives), as identified in the Basin Plan (CRWQCB, 1994).

These objectives can be met with corrective actions designed for:

- Off-Terminal LNAPL Source Abatement
- Off-Terminal Dissolved-Phase Hydraulic Containment and Treatment
- On-Terminal Dissolved-Phase Hydraulic Containment and Treatment
- Off-Terminal Dissolved-Phase Monitored Natural Attenuation

Each of these corrective actions is discussed in the following sections.

3.1 Off-Terminal LNAPL Source Abatement

The overall objectives of off-Terminal LNAPL source abatement are to remove residual LNAPL from subsurface soil to the extent technically practicable no later than December 31, 2010, and to reduce concentrations of dissolved-phase petroleum hydrocarbons in off-Terminal groundwater to the proposed water quality objectives no later than December 31, 2013 (CRWQCB, 2005).

Source abatement is intended to reduce concentrations of soluble petroleum hydrocarbons including, but not limited to, BTEX, oxygenates (e.g., MTBE), TPH, and degradation products (e.g., TBA). A reduction in concentrations of soluble petroleum hydrocarbons will reduce the extent and magnitude of dissolved-phase hydrocarbons downgradient of the residual LNAPL plume, in addition to contributing to the overall objective to remove residual LNAPL from subsurface soil to the extent technically practicable. The reduction of the contaminant source strength will also reduce the potential for future impacts to the San Diego River, and enable current and anticipated beneficial uses of groundwater within portions of the Mission San Diego Hydrologic Sub Area proposed for development for municipal use by the City of San Diego while off-Terminal corrective actions continue.

Source abatement is also intended to reduce concentrations of volatile petroleum hydrocarbons including, but not limited to, BTEX, oxygenates (e.g., MTBE), and TPH. A reduction in concentration of volatile petroleum hydrocarbons will reduce the potential for human exposure to these constituents in soil gas, in addition to contributing to the overall objective, which is to remove residual LNAPL from off-Terminal subsurface soil to the extent technically practicable.

Finally, source abatement is also intended to reduce the extent and magnitude of potential mobilization of LNAPL resulting from changes in groundwater levels. Both off-terminal and on-Terminal hydraulic containment is expected to further reduce this possibility by lowering the groundwater table in the off-Terminal area.

Off-Terminal LNAPL source reduction will be achieved through the following measures:

- LNAPL recovery through skimming and bailing (if applicable)
- SVE with groundwater suppression

- Hydraulic containment of on-Terminal dissolved-phase petroleum hydrocarbon and LNAPL

These proposed corrective measures are discussed in detail in Section 4.

3.2 Off-Terminal Dissolved-Phase Hydraulic Containment and Treatment

The overall objective of off-Terminal dissolved-phase hydraulic containment and treatment is to reduce the dissolved-phase mass discharge of soluble petroleum hydrocarbons from the off-Terminal source zone into the portion of the Mission San Diego Hydrologic Sub Area proposed for future development for municipal use and to assist in lowering the groundwater table in the off-Terminal area.

Reduction of dissolved mass discharge of soluble petroleum hydrocarbons will protect potential receptors and help to restore the groundwater for beneficial uses. Continued operation of a containment remedy downgradient of the off-Terminal source area is expected to continue until off-Terminal source abatement is complete, and is intended to reduce or eliminate the mass discharge from the off-Terminal LNAPL source zone in order to protect beneficial uses of groundwater in downgradient regions.

Additional lowering of the groundwater table in the off-Terminal area is intended to further expose the LNAPL smear zone to SVE influence, thus contributing to the overall objective of LNAPL source abatement. Lowering of the groundwater table is intended to contribute significantly to this objective by:

- Exposing additional regions of the off-Terminal residual LNAPL to SVE influence, which should result in more rapid and effective overall mass reduction of LNAPL by SVE in the off-Terminal source area.
- Exposing a greater portion of the residual LNAPL smear zone to SVE influence is expected to increase the rate of oxygen replenishment to this zone, further enhancing the contribution of biodegradation to overall LNAPL mass reduction.
- Additional lowering of the groundwater table in the off-Terminal source area will further reduce the volume of residual LNAPL in contact with groundwater and, therefore, reduce the dissolution of dissolved-phase contaminant mass originating from this area.

Off-Terminal dissolved phase hydraulic containment and treatment will be achieved through continued operation of the existing off-Terminal hydraulic containment barrier. This proposed corrective measure is discussed in detail in Section 4.

3.3 On-Terminal Dissolved-Phase Hydraulic Containment and Treatment

The overall objectives of on-Terminal dissolved phase hydraulic containment and treatment is to assist in lowering the groundwater table in the off-Terminal.

Additional lowering of the groundwater table in the off-Terminal area is intended to further expose the LNAPL smear zone to SVE influence, thus contributing to the overall objective of LNAPL source abatement. Lowering of the groundwater table is intended to contribute significantly to this objective by:

- Exposing additional regions of the off-Terminal residual LNAPL to SVE influence, which should result in more rapid and effective overall mass reduction of LNAPL by SVE in the off-Terminal source area.
- Exposing a greater portion of the residual LNAPL smear zone to SVE influence is expected to increase the rate of oxygen replenishment to this zone, further enhancing the contribution of biodegradation to overall LNAPL mass reduction.
- Additional lowering of the groundwater table in the off-Terminal source area will further reduce the volume of residual LNAPL in contact with groundwater and, therefore, reduce the dissolution of dissolved-phase contaminant mass originating from this area.

On-Terminal dissolved-phase hydraulic containment and treatment will be achieved through continued operation of the existing on-Terminal hydraulic containment barrier. This proposed corrective measure is discussed in detail in Section 4.

3.4 Off-Terminal Dissolved-Phase Monitored Natural Attenuation

The overall objective of off-Terminal dissolved-phase monitored natural attenuation is to reduce concentrations of dissolved-phase petroleum hydrocarbons in off-Terminal groundwater to the proposed water quality objectives no later than December 31, 2013 (CRWQCB, 2005).

Upgradient corrective actions (on- and off-Terminal dissolved-phase hydraulic containment, coupled with off-Terminal LNAPL source abatement) are intended to reduce or eliminate further mass discharge of dissolved-phase petroleum hydrocarbons to groundwater. However, there currently exist regions of groundwater affected by dissolved-phase petroleum hydrocarbons that are not targeted by these upgradient corrective actions. In these downgradient regions, and in regions of affected groundwater within the off-Terminal source zone that may remain after off-Terminal LNAPL source abatement and hydraulic containment cease, water quality objectives are expected to be achieved through the use of monitored natural attenuation.

3.5 Contingency Corrective Action(s)

Should off-Terminal source abatement fail to meet milestones as set forth in Section 5 of this report, contingency corrective actions will be implemented in order to meet the intended objectives previously described for off-Terminal LNAPL source abatement.

Contingency corrective action for off-Terminal LNAPL source reduction will be achieved through the following measures (as required):

- expanded SVE
- electrical resistive heating
- modified on- or off-Terminal hydraulic containment barrier groundwater extraction rates
- installation of additional on- or off-Terminal groundwater extraction wells

Should off-Terminal dissolved-phase hydrocarbon abatement fail to meet milestones as set forth in Section 5 of this report, contingency corrective actions will be implemented in order to meet the intended objectives as previously described for off-Terminal dissolved-phase hydraulic containment and treatment.

Contingency corrective action for off-Terminal dissolved-phase hydraulic containment and treatment will be achieved through the following measures:

- modified groundwater extraction rates
- installation of additional groundwater extraction wells

Contingency corrective action for on-Terminal dissolved-phase hydraulic containment and treatment will be achieved through the following measures:

- modified groundwater extraction rates
- installation of additional groundwater extraction wells

Contingency corrective actions for off-Terminal dissolved-phase monitored natural attenuation may include the following measures, as required:

- enhanced bioremediation via oxygen addition (iSOC)
- wellhead treatment

Proposed corrective measures are discussed in detail in Section 4.

4.0 OFF-TERMINAL CORRECTIVE ACTIONS

The corrective actions discussed in this section are designed, to the extent technically practicable, to remove residual LNAPL from subsurface soil and groundwater no later than December 31, 2010 (CRWQCB, 2005). In addition, concentrations of dissolved-phase petroleum hydrocarbons are to be reduced to their primary MCLs, secondary MCLs, or taste-and-odor thresholds for chemicals with no established secondary MCL, as described in Section 3, no later than December 31, 2013.

The corrective action are designed for:

- off-Terminal LNAPL source abatement
- off-Terminal dissolved-phase hydraulic containment and treatment
- on-Terminal dissolved-phase hydraulic containment and treatment
- off-Terminal dissolved-phase monitored natural attenuation

Specific corrective actions proposed for these objectives are described below. Performance metrics and milestones for these actions are provided in Section 5. The monitoring and reporting program intended to monitor and evaluate the effectiveness of these actions is discussed in Section 6.

4.1 LNAPL Recovery through Skimming and Bailing (If Applicable)

The depth to water (and measurable thickness of LNAPL, if present) is monitored and determined from direct measurements taken during quarterly groundwater monitoring events. Fluid level measurements are currently obtained from 127 monitoring wells located in the off-Terminal area.

If LNAPL is encountered in monitoring wells at sufficient thicknesses, it is recovered by hand bailing and transferred to the groundwater treatment system's existing oil/water separator, or shipped off-site for disposal.

LNAPL monitoring frequency and removal protocols in the off-Terminal area are anticipated to continue for the duration of this project.

4.2 Soil Vapor Extraction

SVE is currently being performed on 29 wells, located predominantly in the off-Terminal residual LNAPL area. These wells are RW-3 through RW-7, RW-10 through RW-20, and RW-22 through RW-34. The extracted vapor is conveyed to the Terminal property and is treated in the facility's thermal oxidizer vapor treatment system in accordance with the County of San Diego Air Pollution Control District (APCD) Permit to Operate No. 974060.

Additionally, a SVM probe network is in place to monitor changes in soil gas concentrations in response to SVE. This network consists of 15 multi-level SVM probe clusters in the off-Terminal area, designated SV-01, SV-08 through SV-15, and SV-18 through SV-23. SV-01 and SV-08 through SV-15 consist of four individual sampling probes (with the exception of SV-15, which consists of three individual sampling probes) distributed from approximately 4 feet bgs to approximately 3 feet above the groundwater table at the time of installation. SV-18 through SV-23 consist of four individual sampling probes (with the exception of SV-20, which consists of three individual sampling probes) distributed from approximately 4 feet bgs to approximately

the total depth of the LNAPL smear zone. The multi-level probes are designed to provide a vertical profile of volatile organic hydrocarbons and fixed gases in soil gas.

The SVE system has removed approximately 493,927 lbs of hydrocarbons to date. The effectiveness of this technology for LNAPL source abatement led to its selection as the preferred technology for source abatement in the off-Terminal area. Operation of this technology is expected to continue, in conjunction with the water table suppression from the combined effects of off-Terminal and on-Terminal groundwater extraction, until residual LNAPL in off-Terminal subsurface soil has been removed to the extent technically and economically practicable.

SVE remediation performance monitoring is currently being conducted on a routine basis in accordance with the schedule outlined in Monitoring and Reporting Program, CAO 92-01, Addendum No. 5. As remediation progresses, changes to this monitoring schedule may be proposed in response to changing site conditions. SVE performance metrics and milestones are presented in Section 5. The monitoring and reporting program is presented in Section 6.

4.3 Dissolved-Phase Hydraulic Containment and Treatment

The off-Terminal groundwater extraction system was started in May 1994, and LFR assumed operation of the system in January 2002. Groundwater is currently extracted from 10 recovery wells, 7 of which are extracting groundwater for the purpose of off-Terminal dissolved-phase hydraulic containment and treatment (RW-3A and RW-4 through RW-9). Groundwater extraction wells RW-3A through RW-7 are located along the downgradient edge of the off-Terminal residual LNAPL source zone to provide for hydraulic containment of dissolved-phase hydrocarbons emanating from the off-Terminal source zone and to contribute to lowering of the groundwater table in the off-Terminal area. Wells RW-8 and RW-9 are located further downgradient and southwest of the off-Terminal residual LNAPL source zone and are extracting groundwater for the purpose of downgradient MTBE plume mass reduction and treatment. Groundwater extraction wells RW-35 through RW-37 are located in the on-Terminal area and are extracting groundwater for the purpose of on-Terminal dissolved-phase hydraulic containment and treatment and lowering of the groundwater table in the off-Terminal area. Groundwater extraction wells RW-35 and RW-36 are located just north of San Diego Mission Road along the southern side of the Shell building in the Shell Lease Area, and groundwater extraction well RW-37 is installed north of the Friars Road overpass in the Terminal road. Extracted groundwater is pumped to the Terminal property, where it is treated in the facility's groundwater treatment system and discharged to Murphy Canyon Creek in accordance with NPDES Permit No. CAG919002, Order No. 2001-96.

The existing off-Terminal hydraulic containment barrier (RW-3A through RW-7) is currently providing for effective hydraulic containment of dissolved-phase hydrocarbons emanating from the off-Terminal source zone and is effectively contributing to groundwater suppression in the off-Terminal area. The effectiveness of

this technology to prevent further migration of dissolved-phase petroleum hydrocarbons downgradient of the off-Terminal LNAPL source zone and to contribute to lowering the groundwater table in the off-Terminal area led to its selection as the preferred technology for off-Terminal dissolved-phase hydraulic containment and treatment. Operation of this containment remedy downgradient of the off-Terminal source zone is expected to continue until concentrations of dissolved-phase petroleum hydrocarbons are reduced to the proposed cleanup levels.

Likewise, downgradient extraction wells RW-8 and RW-9 are also currently providing effective reduction of MTBE and TBA concentrations in areas downgradient of the source zone. The success of this technology to reduce concentrations of MTBE and TBA downgradient of the off-Terminal LNAPL source zone led to its selection as the preferred technology to meet the objective of reducing the dissolved-phase mass discharge of soluble petroleum hydrocarbons from the off-Terminal source zone. Operation of this remedy downgradient of the off-Terminal source zone is expected to continue until concentrations of dissolved-phase petroleum hydrocarbons are reduced to the proposed cleanup levels.

The on-Terminal hydraulic containment barrier has in been operation since February 2005, operating at flow rates intended to maintain effective hydraulic containment of dissolved-phase hydrocarbons while having minimal influence on groundwater levels in the off-Terminal area. In September 2005, the operating flow rates of RW-35 and RW-36 were increased to assist in lowering the groundwater table in the off-Terminal area. Flow rates were determined using the numerical groundwater flow model developed for the Site and vicinity (LFR 2004c), and are summarized on the following table:

Recovery Well	Pumping Rate (gpm)
RW-3A	20
RW-4	10
RW-5	20
RW-6	10
RW-7	20
RW-8	0
RW-9	10
RW-35	100
RW-36	100
RW-37	0
Total	290

The results of simulations using a cumulative groundwater extraction flow rate of 290 gpm for both the on- and off-Terminal wells indicated that desired off-Terminal groundwater levels should be achievable within approximately three months under the aforementioned pumping scenario thus leading to its selection as the preferred technology for on-Terminal hydraulic containment and treatment.

Groundwater monitoring and evaluation of effectiveness of the groundwater extraction system is being conducted on a routine basis in accordance with the schedule outlined in the Monitoring and Reporting Program, CAO 92-01, Addendum No. 5. As remediation progresses, changes to this monitoring schedule may be proposed in response to changing site conditions. Groundwater extraction performance metrics and milestones are presented in Section 5 and the monitoring and reporting program is presented in Section 6.

Groundwater monitoring and evaluation of the effectiveness of hydraulic containment and lowering of the groundwater table in the off-Terminal area are being conducted on a routine and frequent basis in accordance with the schedule outlined in the Monitoring and Reporting Program, CAO 92-01, Addendum No. 5. Groundwater monitoring frequency and protocols are anticipated to continue for the duration of the operation of the hydraulic containment barriers and for many years thereafter. As remediation progresses, changes to this monitoring schedule may be proposed in response to changing site conditions. Hydraulic containment barrier performance metrics and milestones are provided in Section 5. The monitoring and reporting program intended to monitor and evaluate effectiveness of hydraulic containment is provided in Section 6.

4.4 Off-Terminal Dissolved-Phase Monitored Natural Attenuation

Upgradient corrective actions (hydraulic containment and off-Terminal LNAPL source abatement) are intended to reduce or eliminate further mass discharge of dissolved-phase petroleum hydrocarbons to groundwater. However, a plume of dissolved-phase MTBE and TBA currently exists downgradient of the groundwater extraction system. In this downgradient region, and in affected portions of the off-Terminal source zone that may remain after off-Terminal source abatement and hydraulic containment cease, water quality objectives are expected to be achieved through monitored natural attenuation.

Monitoring of dissolved-phase natural attenuation parameters indicate that natural attenuation (e.g., biodegradation, volatilization or other mechanisms of permanently removing or transforming contaminants) is likely to be contributing to contaminant mass reduction in the area downgradient of the groundwater extraction system. Concentrations of dissolved-phase BTEX and TPHg have historically decreasing rapidly with distance downgradient of the off-Terminal residual LNAPL zone. MTBE concentration data from groundwater monitoring wells located outside of and downgradient from the capture zone of the hydraulic containment generally indicate that MTBE is either stable or has attenuated to some degree. Concentrations of TBA, a degradation product of MTBE, appear to indicate that MTBE is undergoing biodegradation. Elevated concentrations of

total alkalinity, methane, and ferrous iron, with respect to background concentrations, are indicative of biologically mediated respiration, methanogenesis, and ferric iron reduction, respectively. Depletion of DO, nitrate, and sulfate, with respect to background concentrations, are indicative of biologically mediated aerobic oxidation, nitrate reduction, and sulfate reduction, respectively. These patterns or geochemical “footprints” are indicative of biological activity.

Monitoring of this containment remedy is anticipated to continue until concentrations of dissolved-phase petroleum hydrocarbons are reduced to the proposed cleanup levels.

Groundwater monitoring and evaluation of natural attenuation mechanisms are being conducted on a routine basis in accordance with the schedule outlined in the Monitoring and Reporting Program, CAO 92-01, Addendum No. 5. Changes to this monitoring schedule may be proposed in response to changing site conditions. Natural attenuation performance metrics and milestones are presented in Section 5 and the monitoring and reporting program is presented in Section 6.

4.5 Contingency Corrective Action(s)

4.5.1 Soil Vapor Extraction

Should progress towards off-Terminal source abatement appear to deviate significantly from performance metrics as described in Section 5 of this report or if additional SVE data assessments (discussed below) conclude that current SVE well density is insufficient to meet source abatement objectives, contingency corrective actions will be implemented in order to meet the intended objectives as previously described for the off-Terminal LNAPL source abatement.

Initial Assessment as to the Need for Additional SVE Wells

The Work Plan to Assess the Potential Need for Additional Soil Vapor Extraction Wells in the Off-Terminal LNAPL Area was submitted on July 12, 2005 (LFR, 2005b). The following summarizes the work plan and its applicability to contingency corrective actions.

A report further evaluating the vertical distribution and saturation of LNAPL in the off-Terminal area was submitted on July 28, 2005. The results of this investigation are to be used in conjunction with historical site characterization/monitoring data and previously compiled SVE system performance evaluation data to: (1) further refine and update the interpreted vertical/lateral distribution and estimation of LNAPL mass present in the off-Terminal area; and (2) evaluate the potential need to install additional SVE wells and/or additional SVM probes in order to achieve the remedial goals during the time frame specified in Addendum No. 5. The following data evaluations will be conducted:

- Historical and current vacuum measurements from the existing SVM probes will be reviewed to evaluate whether areas potentially exist within the off-Terminal LNAPL plume where the vacuum influence may be insufficient (i.e., less than 0.1 inch of water).
- Historical and current analytical data from the existing SVM probes (including data from the rebound testing conducted in late 2003) will be evaluated to characterize VOC concentration trends over time.
- Historical and current analytical data and field measurements from the existing, newly installed, and temporary SVM probes (including data from the rebound testing conducted in late 2003) will also be evaluated to characterize oxygen and carbon dioxide concentration trends over time.
- Historical data collected from SVE wells and soil vapor monitoring points will be evaluated for trends in pressure drawdown versus distance, VOC concentration reduction from baseline versus distance, and oxygen and carbon dioxide concentrations versus distance in evaluating the adequacy of the existing SVE well density and total area of coverage.

The above-described data analysis will also be utilized in evaluating the potential value of remedial system performance and progress monitoring data that could be obtained in the future via the installation of additional SVM probes within the off-Terminal LNAPL area. Following the completion of the above-described tasks, a report will be prepared which includes, but is not necessarily limited to, the following:

- presentation of the updated interpretation of the vertical/lateral distribution and mass estimation for the off-Terminal LNAPL area
- SVM probe vacuum influence measurements
- SVM probe VOC concentration data
- SVM probe oxygen concentration data
- SVM probe carbon dioxide concentration data
- discussion of SVE well and SVM probe construction relative the updated interpretation of LNAPL distribution and estimated groundwater elevations resulting from dewatering activities
- recommendations for additional SVE testing, as warranted
- Site plans depicting:
 - the areal extent of the off-Terminal LNAPL plume, along with the existing SVE well locations and their estimated area of effective vacuum influence
 - proposed locations and construction details for additional SVE wells, as warranted
 - proposed locations and construction details for additional SVM probes, as warranted

Additional SVE wells and SVM probes will be installed according the conclusions presented in this report.

Future Assessment as to the Need for Additional SVE Wells

The effectiveness of SVE and remedial progress will be continually evaluated based on routine monitoring data. However, a more comprehensive evaluation similar to that described above will be performed in 2007 and 2009, following future soil sampling events. Additional SVE wells and/or SVM probes may be installed, if warranted, based on the conclusions presented in these reports. Should it be determined that SVE is not on track to meet the objectives of LNAPL source abatement, alternative remedial technologies will be re-evaluated and implemented as needed.

Alternative Remedial Technologies

In early 2004, LFR conducted a detailed evaluation of alternative remediation technologies applicable for off-Terminal source reduction, the results of which were reported in the Alternative Remediation Evaluation for Off-Site Source Reduction Report dated April 26, 2004 (LFR, 2004f).

The report details evaluations conducted on alternative remediation technologies and their respective applicability for remediation of the off-Terminal LNAPL plume. Included in the report are detailed descriptions of the alternative treatment technologies reviewed, a discussion of technological feasibility with respect to enhancing vadose zone and unsaturated smear zone source reduction, a section addressing petroleum hydrocarbons in the saturated zone of the off-Terminal residual LNAPL plume, and a discussion of promising alternative treatment technologies recommended for comprehensive, detailed evaluation if the current and proposed treatment systems (expanded SVE, continued operation of the existing off-Terminal hydraulic containment barrier, and operation of an on-Terminal hydraulic containment barrier) do not meet their objectives.

The initial screening of technology alternatives yielded an understanding of the capabilities of each of the technologies reviewed in relation to the site-specific conditions, specifically for off-Terminal source reduction. Based on the screening, it was determined that limited use of electrical resistive heating (ERH) in isolated “hot-spot” areas could provide significant SVE enhancement while providing effective treatment of petroleum hydrocarbons in the saturated residual LNAPL.

Should alternative remedial technologies be required, ERH will be reevaluated for potential implementation.

4.5.2 Dissolved-Phase Hydraulic Containment and Treatment

Should off-Terminal hydraulic containment fail to lower the off-Terminal groundwater table sufficiently to expose a greater portion of the residual LNAPL smear zone to SVE influence or if hydraulic containment of dissolved-phase hydrocarbons is insufficient, contingency corrective actions will be performed.

The initial contingency response will be to increase groundwater extraction rates for the existing off-Terminal hydraulic containment wells. Groundwater extraction rates will be increased, as needed, up to and including the maximum extraction rate for each well's respective pump. Should increased extraction still fail to meet the objectives of the off-Terminal hydraulic containment barrier, additional groundwater extraction wells will be installed in the off-Terminal area, as needed.

Should on-Terminal hydraulic containment fail to lower the off-Terminal groundwater table sufficiently to expose a greater portion of the residual LNAPL smear zone to SVE influence, contingency corrective actions will be performed.

The initial contingency response will be to increase groundwater extraction rates for the existing on-Terminal hydraulic containment wells. Groundwater extraction rates will be increased, as needed, up to and including the maximum extraction rate for each well's respective pump. Should increased extraction still fail to meet the objectives of the on-Terminal hydraulic containment barrier, additional groundwater extraction wells will be installed in the on-Terminal area, as needed.

4.5.3 Off-Terminal Dissolved-Phase Monitored Natural Attenuation

Should progress towards reduction of dissolved-phase petroleum hydrocarbons to the proposed remedial goals appear to deviate significantly from performance metrics as described in Section 5, contingency corrective actions will be implemented in order to meet the intended objectives as previously described for dissolved-phase monitored natural attenuation.

The contingency response will include installation of in-situ submerged oxygen curtain (iSOC) technology in selected groundwater monitoring wells. The iSOC technology is a gas delivery system which supersaturates the monitoring well in which it is installed with DO. Groundwater supersaturated with DO disperses into adjacent groundwater, thus enhancing aerobic biodegradation of COCs. Selection of groundwater monitoring wells in which the iSOC technology would be employed would depend on the specific COCs and concentrations in the monitoring wells. The iSOC technology would be employed in monitoring wells in locations where the trend in concentrations of dissolved-phase petroleum hydrocarbons indicates inadequate progress towards achieving the proposed water quality objectives by December 31, 2013.

4.5.4 Water Supply Well Dissolved-Phase Hydrocarbon Abatement

Should a private water supply well(s) be installed in areas impacted by off-Terminal dissolved-phase hydrocarbons prior to the corrective actions (as detailed in this report) meeting the proposed water quality objectives, wellhead treatment will need to be implemented.

5.0 OFF-TERMINAL REMEDIATION PERFORMANCE METRICS AND CLEANUP MILESTONES

This section presents a discussion of metrics and milestones intended to monitor and demonstrate the effectiveness of corrective actions implemented for off-Terminal soil and groundwater remediation. Cleanup milestones established by Addendum No. 5 of CAO 92-01 are also presented. These milestones are included on the timeline depicted in Figure 5.0-1.

5.1 Off-Terminal LNAPL Source Abatement

This section presents performance metrics and milestones for removal of residual LNAPL from subsurface soil and groundwater in the off-Terminal area.

5.1.1 Cleanup Milestones

As stated in Addendum No. 5 to Cleanup and Abatement Order 92-01, the CRWQCB has set a milestone for LNAPL source abatement corrective actions that will, to the extent technically practicable, remove residual LNAPL from subsurface soil and groundwater as soon as practicable, and no later than December 31, 2010 (CRWQCB, 2005). The corrective actions selected to meet this milestone includes the following components:

- continued SVE
- water table suppression in the off-Terminal residual LNAPL area

Performance metrics that will be used to monitor the effectiveness of these measures in meeting the corrective action objectives are discussed in the following section.

5.1.2 Performance Metrics

Performance metrics shall be used to monitor and demonstrate the effectiveness of corrective actions implemented for off-Terminal source abatement. It is to be expected that remedial effectiveness will be greater in some areas relative to others, considering the heterogeneity of soil types and distribution of LNAPL in the off-Terminal LNAPL area. Performance metrics for these varying areas are not mutually exclusive and will be evaluated in combination with one another to comprehensively evaluate the remedial

performance and cleanup, both spatially and temporally. Future soil sampling shall take into consideration the relative status of performance metrics throughout the Site.

If ongoing evaluation of corrective action effectiveness indicates that metrics are not on track to meet their respective corrective action objectives, appropriate contingency measures detailed in Section 4.5 will be further evaluated for implementation.

5.1.2.1 SVE System Flow Rate

The SVE system will be upgraded to provide a cumulative system flow rate of approximately 1,000 scfm as allowed by the current APCD air emissions permit. This cumulative flow rate will be managed to result in effective extraction of soil vapors throughout the LNAPL area.

The cumulative system flow rate will be monitored and evaluated in two ways. First, measurements will be collected from the total undiluted flow rate entering the vapor extraction system. Second, a summation of measurements collected from each individual SVE well will be used as verification of the total system influent flow rate.

5.1.2.2 Soil Vapor Extraction Influence

Monitoring will be conducted to demonstrate compliance with the performance criteria outlined in the Monitoring and Reporting Program (MRP) of CAO Number 92-01, Addendum No. 5. These criteria require that all SVM probes being monitored are:

- under vacuum at all screened depths
- exposed to vapor flow and not water saturated
- sufficiently aerated by the vapor flow such that oxygen concentrations exceed 10 percent by volume at all depths at each location

The CRWQCB has set a milestone for these criteria to be met no later than March 10, 2006 (CRWQCB, 2005).

Presence of vacuum influence shall be verified through direct field measurement. Each probe's exposure to vapor flow and location relative to the saturated zone shall be demonstrated using interpretation of water table elevation contours relative to probe depths in quarterly reporting as well as field observations. The concentration of oxygen shall be measured directly during routine field monitoring events.

5.1.2.3 Concentration and Composition of Vapor Phase Hydrocarbons

It is expected that total hydrocarbon concentrations will initially increase at many SVM probes, especially those positioned in deeper soil, as additional source is exposed following dewatering. After this initial increase, it is expected that total hydrocarbon concentrations should steadily decrease as a result of mass removal. As a guideline, it

is expected that the total hydrocarbon concentration of in situ soil vapors at each SVM probe should approach values of less than 0.01 milligrams of TPH per liter of vapor (mg-TPH/l-vapor) as remediation nears completion. The total hydrocarbon concentration shall be determined by analysis of samples collected from the network of SVM probes.

It is also expected that the hydrocarbon fraction composition of vapor phase hydrocarbons will remain relatively stable for some time after de-watering is implemented (and new source material is exposed), followed by a gradual but obvious shift towards heavier hydrocarbon fractions, as the lighter fractions are preferentially removed by the SVE system. As a guideline, the composition of extracted soil vapor should be predominantly composed of the heavier hydrocarbon fraction (< C₈ fraction contributing less than 1 percent of the total hydrocarbons) as remediation nears completion.

The composition of extracted soil vapors shall be determined through analysis of samples collected from the network of SVE wells and SVM probes.

5.1.2.4 Soil Vapor Mass Extraction Rate

It is expected that mass extraction rates will initially increase at many SVE wells, especially those targeting deeper soil, as extraction flow rates are increased and additional source is exposed following dewatering. Once target groundwater elevation has been reached, mass extraction rates should steadily decrease as more of the total system mass is removed. As a guideline, the mass extraction rate at each SVE well should approach a value of less than 1 pound of TPH per day (lb-TPH/d) as remediation nears completion.

Mass removal rates shall be estimated based on field measurements of flow rate and the total hydrocarbon concentration at each extraction well.

5.1.2.5 Oxygen Utilization Rates

In accordance with the MRP of CAO Number 92-01, Addendum No. 5, respirometry data will be routinely collected to monitor biodegradation processes within the LNAPL area. It is expected that oxygen utilization rates will initially increase at many SVM probes, especially those positioned in deeper soil, as additional source is exposed following dewatering, as new and oxygen-deficient zones are exposed. Oxygen utilization rates are then expected to decrease as mass is removed, and oxygen is circulated to the soil column. As a guideline, the oxygen utilization rates measured during respirometry testing should approach a value of 1 milligram TPH per kilogram of soil per day (mg-TPH/kg/d) as remediation nears completion.

Oxygen utilization rates shall be estimated based on performance of site-wide respirometry testing (U.S. EPA, 1995).

5.1.2.6 Dewatering of Off-Terminal Residual LNAPL Area

Results of numerical modeling indicate that groundwater extraction from recovery wells RW-3A through RW-7 (off-Terminal hydraulic containment) and RW-35 through RW-37 (on-Terminal hydraulic containment) will result in the drawdown of groundwater levels in the off-Terminal area sufficient to expose the deepest extent of impacted soils as defined by the SCM included in this report.

This initial finding will be confirmed by comparing the interpreted elevation contours representing the bottom surface of the impacted soils to interpreted water table elevation contours developed during quarterly monitoring. These data will be used to assess the extent to which dewatering in the off-Terminal residual LNAPL area has exposed impacted soils to SVE influence. Additionally, SVM probes positioned within the deeper portion of the soil column will be routinely monitored to assess for indications of water saturation.

5.2 Off-Terminal Dissolved-Phase Hydrocarbon Abatement

This section presents performance metrics and milestones for reduction of dissolved-phase petroleum hydrocarbons to proposed water quality objectives.

5.2.1 Cleanup Milestones

As stated in Addendum No. 5 to Cleanup and Abatement Order 92-01, the CRWQCB has set a milestone for reduction of concentrations of dissolved-phase petroleum hydrocarbons to applicable water quality objectives as soon as practicable, and no later than December 31, 2013 (CRWQCB, 2005). The corrective actions selected to meet this milestone include the following components:

- off-Terminal hydraulic containment
- on-Terminal hydraulic containment
- natural attenuation

Performance metrics that will be used to monitor the effectiveness of these measures in meeting the corrective action objectives are discussed in the following section.

5.2.2 Performance Metrics

Performance metrics shall be used to monitor and demonstrate effectiveness of corrective actions implemented for off-Terminal dissolved-phase hydrocarbon abatement. It is to be expected that remedial effectiveness will be greater in some areas relative to others, considering the heterogeneity of sediments and contaminant distribution at the Site. Performance metrics for these varying areas are not mutually exclusive and will be evaluated in combination with one another to comprehensively evaluate the remedial performance and cleanup, both spatially and temporally. Metrics

for dissolved-phase hydrocarbon abatement assume that the source abatement metrics detailed in Section 5.1.2 are on track to meet their respective corrective action objectives.

If ongoing evaluation of the effectiveness of corrective action indicates that metrics are not on track to meet their respective corrective action objectives, appropriate contingency measures detailed in Section 4.5 will be further evaluated for implementation.

The performance metrics that will be routinely evaluated to assess progression towards the cleanup milestone include:

- a significant reduction in dissolved-phase petroleum hydrocarbons migrating beyond the property limits of the Terminal
- decreasing trends in the concentration of petroleum hydrocarbons in groundwater
- decreasing rates of mass extraction from the off-Terminal recovery wells (RW-3A through RW-9)
- decreasing trends for contaminant mass discharge across downgradient transects
- maintenance of existing groundwater capture zones for off-Terminal recovery wells (RW-3A through RW-9) through evaluation of groundwater elevation data

6.0 MONITORING AND REPORTING PROGRAM

6.1 Soil Vapor Monitoring

6.1.1 Soil Vapor Monitoring Probes

Monitoring of in situ soil vapors will be conducted biweekly. This monitoring will include collecting field measurements of total hydrocarbon concentrations, vacuum, and respiration gases (i.e., oxygen, carbon dioxide) from each individual SVM probe. Field measurement of total hydrocarbon concentrations will be performed using a flame ionization detector (FID) calibrated to a hexane standard.

Samples will be collected from a subset of 25 percent of the monitored SVM probes on a biweekly basis. This subset of probes, which have been selected based on their higher total hydrocarbon concentrations relative to the other off-Terminal SVM probes, will remain consistent. All samples will be collected in summa canisters and analyzed by EPA Method TO-14 - Gas Chromatography-Mass Spectrometry (GC-MS) for total hydrocarbon concentration, hydrocarbon fraction composition (C₄-C₅, C₆-C₇, C₈-C₁₀, C₁₁-C₁₄), BTEX, and MTBE. Additionally, samples will be collected from all monitored SVM probes on a quarterly basis and analyzed for total hydrocarbon concentration, hydrocarbon fraction composition (C₄-C₅, C₆-C₇, C₈-C₁₀, C₁₁-C₁₄), and

speciated volatile organic hydrocarbons by EPA Method TO-15 (GC-MS) and for fixed gases (oxygen, carbon dioxide, and nitrogen) by ASTM Method D1946-90.

A site-wide respirometry test will be conducted on a quarterly basis to evaluate the oxygen utilization rate and estimate the biodegradation rate within the off-Terminal residual LNAPL source area. Recent tests were performed over a three-day system shutdown period, with field readings collected every four hours.

Changes to this monitoring schedule may be proposed in response to changing site conditions.

6.1.2 Soil Vapor Extraction System

The SVE system will be monitored on a weekly basis. This monitoring will include collecting field measurements of total hydrocarbon concentrations, flow rate, and vacuum from the cumulative system influent and each individual SVE well. Field measurements will also be collected for respiration gases (i.e., oxygen, carbon dioxide) from each individual SVE well. Field measurement of total hydrocarbon concentrations will be performed using a FID calibrated to a hexane standard.

Samples will be collected from a subset of 25 percent of the monitored vapor extraction wells, on a weekly basis. This subset of wells, which have been selected based on their higher total hydrocarbon concentrations relative to the other vapor extraction wells, will remain consistent. All samples will be collected in summa canisters and analyzed by EPA Method TO-14 (GC-MS) for total hydrocarbon concentration, hydrocarbon fraction composition (C₄-C₅, C₆-C₇, C₈-C₁₀, C₁₁-C₁₄), BTEX, and MTBE. Additionally, samples will be collected from all of the operational SVE wells on a monthly basis and analyzed for these parameters.

6.2 Groundwater Monitoring

6.2.1 Groundwater Monitoring Wells

Groundwater monitoring will be conducted quarterly. Groundwater elevations will be measured in all monitoring wells at the Site and samples will be collected quarterly in accordance with the schedule outlined in the Monitoring and Reporting Program, CAO 92-01, Addendum No. 5. All samples will be analyzed using EPA Method 8015 for TPHg and TPHd, and EPA Method 8260B for speciated hydrocarbon constituents (including but not necessarily limited to BTEX, ethylene dibromide, MTBE, TBA, and all other fuel oxygenates).

Additionally, samples collected from all groundwater monitoring wells located within the dissolved-phase plume will also be analyzed for biodegradation indicators. These indicators include total alkalinity, biochemical oxygen demand, chemical oxygen demand, total organic carbon, methane, ferrous iron, sulfate, and nitrate.

Future changes to this monitoring schedule may be proposed in response to changing site conditions.

6.2.2 Groundwater Extraction System

The groundwater extraction system will be monitored on a weekly basis. This monitoring will include collecting field measurements of flow rate from each individual groundwater extraction well.

Samples will be collected from all groundwater extraction wells on a quarterly basis. Groundwater samples will be analyzed for TPHg and TPHd using EPA Method 8015, and for speciated hydrocarbon constituents (including but not necessarily limited to BTEX, ethylene dibromide, MTBE, TBA, and all other fuel oxygenates) using EPA Method 8260B.

6.3 Soil Sampling

Soil core samples will be collected from the off-Terminal LNAPL source area no less than every two years. Baseline soil sampling was performed in May 2005. It is expected that soil sampling will be performed in the same locations for each sampling event. However, future soil sampling will take into consideration the relative status of performance metrics throughout the Site, and new locations may be proposed.

Soil samples will be analyzed for TPH distribution and composition and leachability analysis. Total hydrocarbon distribution will be analyzed by EPA Method 8015 Modified for carbon number fractions in the TPHg range and by EPA Method 8015B for carbon number fractions in the TPHd range. Total hydrocarbon composition will be analyzed by EPA Method 8260B including but not necessarily limited to BTEX and oxygenates. Leachability analysis shall be performed using EPA Method 1312 (synthetic precipitation and leaching procedure [SPLP]) and will be analyzed for the same TPH fraction and composition parameters.

6.4 Reporting

Groundwater monitoring and remedial progress reports will continue to be prepared and submitted to the CRWQCB on a quarterly basis no later than 30 days following the end of each quarter. The reports will include but not necessarily be limited to the requirements outlined in the Monitoring and Reporting Program, CAO 92-01, Addendum No. 5. These requirements include the presentation of data and supporting discussions on the following topics:

- groundwater elevations
- groundwater analytical results
- groundwater extraction results (flow rates, mass removal rates)

- SVE results (flow rates, mass removal rates, influence)
- evaluation of remedial effectiveness and performance relative to cleanup and performance milestones
- release report for any releases occurring during the quarter
- status report for relevant activities occurring during the reporting period and scheduled for the next quarter

Quarterly groundwater monitoring and remedial progress reports will also present the following items, which are not specifically mentioned in the Monitoring and Reporting Program, CAO 92-01, Addendum No. 5:

- evaluation of groundwater suppression efforts
- analytical results for in situ soil vapor monitoring
- respirometry testing results
- contaminant mass discharge estimates
- analytical results for soil sampling conducted in that quarter

7.0 REFERENCES

- Adamski, M., V. Kremesec, R.J. Charbeneau. 2003. Residual Saturation. What is It? How is It Measured? Should We Use It? Petroleum Hydrocarbons and Organic Chemicals in Groundwater, Prevention, Assessment, and Remediation Conference. NGWA/API. August.
- Amoore, J.E. and E. Hautala. 1983. Odor as an Aid to Chemical Safety: Odor Thresholds Compared with Threshold Limit Values and Volatilities for 214 Industrial Chemicals in Air and Water Dilution. *Journal of Applied Toxicology*. 3:272-290.
- Aqui-Ver, Inc. and Geosyntec Consultants, Inc. 2001. Site Investigation Report, MissionValley Terminal, San Diego, California. July 31.
- Aqui-Ver, Inc. and Equilon. 2001. Conceptual Site Model Report, Equilon Mission Valley and San Diego Terminals. November 2.
- ASTM D2487-00. 1990. Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System). ASTM International.
- Brooks, R.H. and A.T. Corey. 1964. Hydraulic Properties of Porous Media. Hydrology Paper 3. Colorado State University. Fort Collins.
- Burdine, N.T. 1953 Relative Permeability Calculations from Pore-Size Data. *Transactions A.I.M.E.* no. 198. pp. 71-77.

- Cal/EPA. 2002. Drinking Water Action Levels: Contaminants of Current Interest. Last Update: May 2, 2002. California Department of Health Services (CDHS): <http://www.dhs.ca.gov/ps/ddwen/chemical/AL/actionlevels.htm>.
- California Department of Water Resources (CDWR). 2002. Draft Update to California's Groundwater - Bulletin 118. California Department of Water Resources, draft description of Mission Valley Groundwater Basin, <http://www.waterplan.water.ca.gov/groundwater/basndesc/9-14V2.1.pdf>. January 15.
- California Regional Water Quality Control Board, San Diego Region (CRWQCB). 1994. Water Quality Control Plan for the San Diego Basin (9). September 8.
- _____. 2005. Addendum No. 5 To Cleanup and Abatement Order No. 92-01, Kinder Morgan Energy Partners LP, o/p SFPP, LP, Powerine Oil Company, Santa Fe Pacific Pipeline Partners, LP, and ExxonMobil Oil Corporation, Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego County. April 13.
- Camp Dresser and McKee. 1999. Mission Valley Terminal Corrective Action Plan. October 29.
- ENVIRON and LFR Levine·Fricke. 2003. Health Risk Assessment, Off-Site Areas – Mission Valley Terminal. 9950 and 9966 San Diego Mission Road, San Diego California. August 11.
- _____. 2005. Health Risk Assessment, On-Site Areas – Mission Valley Terminal.
- Gastil, G. and R. Higley. 1977. Guide to San Diego Stratigraphy: Prepared for AAPG-SEG Petroleum Exploration School Field Trip. San Diego State. December.
- Johnston, C.D., and M. Adamski. 2005 Relationship Between Initial and Residual LNAPL Saturation for Different Soil Types. Petroleum Hydrocarbons and Organic Chemicals in Groundwater, Prevention, Assessment, and Remediation Conference. NGWA/API. August.
- LFR Levine·Fricke. 2002a. Receptor Pathway Assessment Off-Site Areas, Mission Valley Terminal, San Diego, California. July 24.
- _____. 2002b. Soil-Vapor Extraction System Evaluation Report, Mission Valley Terminal, San Diego, California. November 22.
- _____. 2002c. Groundwater Extraction Evaluation of Existing Recovery System, Mission Valley Terminal, San Diego, California. November 21.
- _____. 2003a. Remediation System Technical Evaluation Report, Mission Valley Terminal, San Diego, California. July 8.

-
- _____. 2003b. Addendum to the Mass Flux Report, Mission Valley Terminal, San Diego, California. November 20.
- _____. 2003c. Additional LNAPL Distribution and Lithologic Characterization, Mission Valley Terminal, San Diego, California. December 12.
- _____. 2004a. Summary Report, Time Schedule Order R9-2002-0042 Mission Valley Terminal, San Diego, California. January 30.
- _____. 2004b. Numerical Groundwater Flow and Transport Model. Mission Valley Terminal, San Diego, California. January.
- _____. 2004c. Supplemental Health Risk Assessment Off-Site Areas Mission Valley Terminal, San Diego, California. January 30.
- _____. 2004d. Remediation System Continued Technical Evaluation Report, Mission Valley Terminal, San Diego, California. January 23.
- _____. 2004e. Soil Vapor Extraction System Expansion Report, Mission Valley Terminal, San Diego, California. March 1.
- _____. 2004f. Alternative Remediation Evaluation for Off-Site Source Reduction Report, Mission Valley Terminal, San Diego, California. April 26.
- _____. 2004g. Aerobic Microcosm Study, Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California; TSMC: 400-0054.02:dorsk. August 4.
- _____. 2004h. In-Situ Seismic Stimulation Pilot Study Report, Mission Valley Terminal, San Diego, California. October 29.
- _____. 2004i. Aquifer Testing and Design of a Property Boundary Containment Barrier Report, Mission Valley Terminal, San Diego, California. December 3.
- _____. 2005a. Report on the Installation of Wells for Mass Flux Monitoring and Additional Delineation of the Off-Terminal Area, Mission Valley Terminal, San Diego, California. June 27.
- _____. 2005b. Work Plan to Assess the Potential Need for Additional Soil Vapor Extraction Wells in the Off-Terminal LNAPL Area, Mission Valley Terminal, San Diego, California. July 12.
- _____. 2005c. Quarterly Groundwater Monitoring and Remedial Progress Report, 2nd Quarter 2005, Mission Valley Terminal, San Diego, California. July 29.

- _____. 2005d. Results of Additional Soil Investigation in the Off-Terminal Area, Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California. July 28.
- Marshack, J. 2003. A Compilation of Water Quality Goals, California Environmental Protection Agency, Regional Water Quality Control Board, Central Valley Region. August.
- Mualem, Y. 1976. A New Model for Predicting the Hydraulic Conductivity of Unsaturated Porous Media. *Water Resources Research*. no. 12, pp. 513-522.
- National Research Council (NRC). 1994. Alternatives for Ground Water Cleanup. Committee on Ground Water Cleanup Alternatives, National Academy Press, Washington, D.C. ISBN: 0-309-58624-0, 336 pages.
- The Park Corporation. 1998. Results of a Five Day Vapor Extraction Test at Kinder Morgan Energy Partners, L.P.'s Operating Partnership, SFPP, L.P. Mission Valley Terminal, San Diego, California. August 17.
- Rixey, W. and S. Joshi. 2000. Dissolution of MTBE from a Residually Trapped Gasoline Source: A summary of research results. American Petroleum Institute, Soil and Groundwater Technical Task Force, Technical Bulletin No. 13: <http://www.api.org/mtbe>
- Shelton, J.L., K.R. Burow, K. Belitz, N.M. Dubrovsky, M. Land, and J. Gronberg. 2001. Low-Level Volatile Organic Compounds in Active Public Supply Wells as Ground-Water Tracers in the Los Angeles Physiographic Basin, California, 2000. U.S. Geological Survey, National Water-Quality Assessment Program, Water-Resources Investigations Report 01-4188: <http://ca.water.usgs.gov/archive/reports/wrir014188/wri014188.pdf>
- Simon Hydro-Search. 1992. Product Pipeline Soil Sampling Report, Mission Valley Terminal, San Diego, California. August 27.
- Skow, Kate. 2004. Characterization of MTBE Biodegradation Potential in Groundwater Sediment Samples from the Kinder-Morgan Gas Field in Mission Valley, CA. UC-Davis. March 3.
- Smith, C.A. and M.R. Hyman. 2004. Oxidation of Methyl tert-Butyl Ether by Alkane Hydroxylase in Dicyclopropylketone-Induced and n-Octane-Grown *Pseudomonas putida* GPO1. *Applied and Environmental Microbiology*, August 2004, p. 4544-4550, Vol. 70, No. 8.
- State Water Resources Control Board (SWRCB). 1996. Resolution No. 92-49, Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304. As Amended on April 21, 1994 and October 2, 1996.

- _____. 2000. Guidelines for Investigation and Cleanup of MTBE and Other Ether-Based Oxygenates. Final Draft, March 27.
http://www.waterboards.ca.gov/ust/cleanup/docs/mtbe_finaldraft.pdf
- Stringfellow, W.T., R.D. Hines, D.K. Cockrum, and S.T. Kilkenny. 2001. Factors Influencing Biological Treatment of MTBE Contaminated Groundwater. Berkeley Lab Report LBNL-48941.
- TRC, Inc. 2000. Soil Gas and Groundwater Sampling Report, Mission Valley Terminal, San Diego, California. September 8.
- United States Environmental Protection Agency. 1988. Superfund Exposure Assessment Manual. EPA/540/1-88/001. Office of Remedial Response. Washington, D.C.ERCLA
- _____. 1991. Geo-EAS (Geostatistical Environmental Assessment Software) User's Guide. Evan J. Englund, U.S. EPA, and Allen R. Sparks, Computer Sciences Corporation. EPA Contract 68-01-7325.
- _____. 1995. EPA/540/R-95/534a. Manual – Principles and Practices of Bioventing – Volume II: Bioventing Design. September.
- United States Geological Survey. 1989. Basic Ground-Water Hydrology. USGS Water-Supply Paper 2220. United States Government Printing Office, Denver, CO.
- van Genuchten, M.T. 1980. A Closed-Form Equation for Predicting the Hydraulic Conductivity of Unsaturated Soil. Soil Sci. Soc. Am. J. vol. 44, pp. 892-898.

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Appendix B-4

Remedial Compliance Evaluation – Northwest Off-Terminal LNAPL Zone, Arcadis, March 28, 2014

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ENVIRONMENT

Subject:
Remedial Compliance Evaluation – Northwest Off-Terminal LNAPL Zone,
Mission Valley Terminal, San Diego, California (SL607392800:smcclain)

Dear Mr. McClain:

Date:
March 28, 2014

ARCADIS U.S., Inc., has prepared the enclosed report for Mission Valley Terminal, located at 9950 and 9966 San Diego Mission Road, San Diego, California, on behalf of SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. This report presents an evaluation of remedial compliance for the northwest off-Terminal light non-aqueous phase liquid (LNAPL) zone.

Contact:
Rick Ahlers, P.E.

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If you have questions regarding the material presented in this report, please contact Rick Ahlers at 760.214.4768 or Jennifer Rothman at 714.730.9052.

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Sincerely,

Our ref:
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ARCADIS U.S., Inc.

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**SFPP, L.P., an operating partnership of
Kinder Morgan Energy Partners, L.P.**

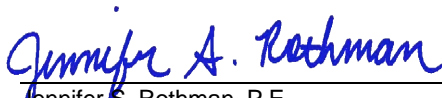
**Remedial Compliance Evaluation –
Northwest Off-Terminal LNAPL
Zone**

Mission Valley Terminal, San Diego, California

March 28, 2014



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**Remedial Compliance
Evaluation – Northwest
Off-Terminal LNAPL Zone**

Mission Valley Terminal
San Diego, California

Prepared for:
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5g Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-17

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5h Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-19

5j Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-20

5k Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-21

5l Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-22

5m Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-23

5n Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-24

5o Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-25

- 6a Northwest Zone SVM Probe and SVE Well Field TPH Concentrations, December 23, 2013
- 6b Northwest Zone SVM Probe and SVE Well Field TPH Concentrations, January 28, 2014
- 7a Northwest Zone SVM Probe and SVE Well Field O₂ Concentrations, December 23, 2013
- 7b Northwest Zone SVM Probe and SVE Well Field O₂ Concentrations, January 28, 2014
- 8a Northwest Zone SVM Probe and SVE Well Field CO₂ Concentrations, December 23, 2013
- 8b Northwest Zone SVM Probe and SVE Well Field CO₂ Concentrations, January 28, 2014
- 9a Northwest Zone SVM Probe and SVE Well Laboratory Analytical TPH Concentrations, December 23, 2013
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- 11 Cumulative TPH Extracted vs. Volume of Soil Vapor Extracted
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Appendices

- A Soil Vapor Monitoring Time-Series Graphs
- B Rebound Testing and Confirmation Soil Sampling Report

Acronyms and Abbreviations

ARCADIS	ARCADIS U.S., Inc.
AST	aboveground storage tank
BTEX	benzene, toluene, ethylbenzene, and total xylenes
<C ₈ fraction	fuel hydrocarbons lighter and/or more volatile than octane
CADPH	California Department of Public Health
CAP	corrective action plan
CAO	Cleanup and Abatement Order
CO ₂	carbon monoxide
COC	constituent of concern
EDB	1,2-dibromoethane
free product	used synonymously with LNAPL, often specifically in reference to LNAPL observed in groundwater wells
ft	foot/feet
ft ²	square feet
ft ³	cubic feet
g/cc	grams per cubic centimeter
GWE	groundwater extraction
GWETS	groundwater extraction and treatment system
HC	hydrocarbon
HypeVent	a model of LNAPL depletion by volatilization
ITRC	Interstate Technology & Regulatory Council
kg/m ³	kilogram(s) per cubic meter
Kinder Morgan	Kinder Morgan Energy Partners, L.P.
LFR	LFR Inc. and LFR Levine-Fricke
LNAPL	light non-aqueous phase liquid
MCLs	maximum contaminant levels
mg/kg	milligram(s) per kilogram

mg/L	milligrams per liter
MTBE	methyl tertiary-butyl ether
O ₂	oxygen
ppmv	parts per million by volume
RTDF	Remediation Technologies Development Forum
RTO	regenerative thermal oxidizer
RWQCB	California Regional Water Quality Control Board, San Diego Region
scfm	standard cubic feet per minute
SFPP	SFPP, L.P.
SVE	soil vapor extraction
SVETS	soil vapor extraction and treatment system
SVM	soil vapor monitoring
TBA	tertiary butyl alcohol
Terminal	Mission Valley Terminal
TPH	total petroleum hydrocarbons
TPH-GRO	total petroleum hydrocarbons as gasoline-range organics
VOC	volatile organic compound

1. Executive Summary

Addendum No. 5 to Cleanup and Abatement Order (CAO) No. 92-01 (Addendum No. 5), issued by the California Regional Water Quality Control Board, San Diego Region (RWQCB), included Directive No. 2 requiring removal of “residual light non-aqueous phase...liquid (LNAPL) from subsurface soil and ground water...to the extent technically practicable” from the off-Terminal area of Mission Valley Terminal (“the Terminal”) in San Diego, California (RWQCB 2005). The RWQCB has stated that, for the purpose of setting soil cleanup levels, it “interprets ‘to the extent technically practicable’ to be comparable to the ‘technical and economic feasibility’ requirement in Resolution 92-49” (RWQCB 2011a).

In September 2005, Kinder Morgan Energy Partners, L.P. (Kinder Morgan) submitted a Corrective Action Plan (CAP) that selected the remedial strategy of soil vapor extraction (SVE) coupled with localized lowering of the groundwater table (“dewatering”) to comply with Directive No. 2 (LFR 2005b). This strategy was selected after evaluation of characterization data showed that dewatering could effectively expose the entire LNAPL zone to the influence of SVE. Following discovery of a previously undetected northwestern portion of the off-Terminal LNAPL zone, an expansion of the off-Terminal remedial system was designed using site-specific knowledge gained during remediation of the primary off-Terminal LNAPL zone. Remediation throughout the northwest off-Terminal LNAPL zone was initiated in 2010.

The robust set of system performance metrics and progress goals developed during remediation of the primary off-Terminal LNAPL zone were applied to remediation of the northwest off-Terminal LNAPL zone. Remedial performance was evaluated relative to these metrics and goals, allowing adaptive, optimized operation of the remedial systems. The metrics and goals included those related to basic system operation to optimize vapor throughput and system uptime. SVE and dewatering well performance metrics and goals, such as target flow rates, vacuums, and water table elevations, demonstrated that the remedial strategy influenced the entire primary off-Terminal LNAPL zone. Progress metrics and goals for the selected remedial strategy, such as tracking the fraction of hydrocarbon gases with less than eight carbon molecules (<C₈ fraction) in soil vapor, demonstrated where operation of the selected strategy was likely to remove LNAPL to the extent technically practicable by the end of 2013 and where additional focus was necessary. For example, experience with SVE at gasoline release sites, as well as in the primary off-Terminal LNAPL zone at the Mission Valley Terminal, indicates that a properly designed and implemented SVE system can effectively deplete the volatile components of residual gasoline in soil, particularly the <C₈ fraction. Soil vapor sampling and modeling were used to assess when the <C₈ fraction would be reduced to less than 1 percent (%) of total hydrocarbons in soil vapor. Additional progress metrics,

such as periodic evaluation of soil and leachate concentrations, provided additional lines of inquiry and added to the evaluation of progress toward remedial goals.

Progress metrics demonstrated that, by the end of 2013, remedial goals had been achieved throughout the northwest off-Terminal LNAPL zone. In January 2014, a post-remedial soil vapor rebound test was performed, in accordance with Directive D of Addendum No. 7 to CAO No. 92-01, to generate additional supporting lines of evidence that compliance with Directive No. 2 had been achieved. The results of both remedial progress monitoring and post-remedial testing demonstrate that, by the end of 2013, the selected remedial strategy had removed LNAPL from the northwest off-Terminal LNAPL zone to the extent technically practicable. The results also demonstrate that the cleanup levels achieved are protective of beneficial uses for groundwater, are consistent with the end-state expectations for the selected remedy, and are consistent with the maximum benefit to the people of the State of California.

2. Introduction

This report presents an evaluation of remedial compliance for the northwest off-Terminal LNAPL zone at Mission Valley Terminal, which is located at 9950 and 9966 San Diego Mission Road, San Diego, California (“the Site”; Figure 1). ARCADIS U.S., Inc. (ARCADIS) has prepared this report on behalf of SFPP, L.P. (SFPP), an operating partnership of Kinder Morgan.

Remediation of the off-Terminal LNAPL zone has been conducted to comply with Directive No. 2 of Addendum No. 5 to CAO No. 92-01 (Directive No. 2). Remedial activities have been conducted in two areas of the off-Terminal LNAPL zone. Remediation of the primary LNAPL zone was completed by December 31, 2010 (ARCADIS 2011b). The RWQCB concurred with this conclusion (RWQCB 2011a). The RWQCB restated this in Addendum No. 7 to CAO No. 92-01 (RWQCB 2011b), which also acknowledges that,

“Kinder-Morgan Energy Partners submitted *Results of a Soil Vapor Survey to Assess Extent of Previously Uncharacterized LNAPL-Affect Soil in the Off-Terminal Area, Mission Valley Terminal*, dated July 24, 2009. This investigation discovered an area of LNAPL-affected soil (northwestern off-terminal LNAPL zone) adjacent to the western limits of the primary off-Terminal LNAPL zone.”

Kinder Morgan conducted remediation of the northwest off-Terminal LNAPL zone through the end of 2013 to complete compliance with Directive No. 5.

By the end of the fourth quarter of 2013, metrics used to track remediation indicated that remedial actions achieved compliance with the criteria set forth in Directive No. 2 in the northwest off-Terminal LNAPL zone. Multiple lines of evidence have been used to track remedial progress, and together these lines of evidence demonstrate that the compliance criteria have been met in the northwest off-Terminal LNAPL zone.

Some of the lines of evidence are operational and performance based. These are evaluated to assess whether the system has been well designed and operated, and are considered prerequisites to achieving remedial compliance. These lines of evidence include:

- LNAPL zone characterization;
- remedial system design and evaluation of post-installation monitoring data for design confirmation;

- the consistently high proportion of time that the remedial system was operating;
- continuous remedial system performance monitoring;
- regular progress evaluation through supplemental soil and soil vapor sampling; and
- detailed evaluation of trends in progress monitoring data.

These operational and performance-based lines of evidence show conditions have been created and maintained to achieve remedial compliance in the northwest off-Terminal LNAPL zone.

In addition to evaluating operational and performance-based lines of evidence, ARCADIS conducted a soil vapor rebound test (ARCADIS 2013b). The objective of the rebound test was to evaluate whether LNAPL has been removed across the northwest off-Terminal LNAPL zone to the extent technically practicable. Data collected for this test included soil vapor sampling during rebound using existing SVE and soil vapor monitoring (SVM) sampling points. Data from the soil vapor rebound test, along with other evidence, confirm that the northwest off-Terminal LNAPL zone has reached compliance with Directive No. 2.

This report synthesizes data from historical characterization, active remediation monitoring including periodic soil sampling, and rebound studies to evaluate compliance with Directive No. 2, as well as State Water Resources Control Board Resolution No. 92-49.

3. Background

3.1 Site Description

The Site is comprised of two areas in and around Mission Valley Terminal: the on-Terminal area and the off-Terminal area (Figure 1). The on-Terminal area is an approximately 67-acre property located in Murphy Canyon, and includes 10.5 acres of aboveground storage tank (AST) facilities. The on-Terminal area is oriented north/south and opens into the larger Mission Valley at its southern end. Murphy Canyon and Mission Valley are at the bottom of steep slopes from the surrounding mesa. The off-Terminal area is downgradient from the Terminal, south of and including San Diego Mission Road, and includes the Qualcomm Stadium property and areas near the San Diego River to the south and west of the stadium.

The Terminal has been in operation since 1962 and is owned by SFPP, an operating partnership of Kinder Morgan. Portions of the Site have historically been leased to Texaco, Shell, ExxonMobil, and CENCO-Powerine. Petroleum products are delivered to the Terminal through a pipeline that receives product from the Los Angeles Basin. Petroleum products currently or historically stored at the Terminal include leaded and unleaded gasoline, gasoline additives, jet fuel, diesel, ethanol, and transmix (a mixture of the various refined petroleum products). In the 1980s, petroleum hydrocarbons were released in the Terminal area and migrated as LNAPL in the subsurface to a portion of the parking lot north of the Qualcomm Stadium facility.

Addendum No. 5 (RWQCB 2005) was issued in April 2005 and specifies, among other things, the removal of LNAPL to the extent technically practicable (Directive No. 2) and details of required remedial monitoring (Monitoring and Reporting Program). Addendum No. 6 (RWQCB 2010) was issued in January 2010 and modified some details of the required remedial monitoring. Addendum No. 7 (RWQCB 2011b) was issued in December 2011 to further modify required remedial monitoring and to consolidate the monitoring and reporting programs of Addenda Nos. 5 and 6 into a single document.

3.2 Historical Extent of LNAPL

LNAPLs distribute (flow) through the coarsest-grained soils within a few feet of the water table. LNAPLs will bypass finer-grained interbeds due to insufficient pressure to overcome the entry pressure (LNAPL head required to drive LNAPL into a pore). LNAPL migration coupled with water table fluctuations will “smear” the LNAPL vertically, i.e., when the water table falls, some, but not all, of the LNAPL will drain from soil previously below the water table, and, when the water table rises, some of the LNAPL will flow upward toward the higher water table due to

buoyant forces. With sufficient water table fluctuations and/or time, the LNAPL will become less and less mobile as the smearing action causes the LNAPL to approach residual saturation. Minimally mobile LNAPL (approaching residual saturation) is less likely to be observed as a floating layer of LNAPL (“free product”) in a monitoring well. Dissolution and volatilization of hydrocarbons leads to molecular diffusion into finer-grained soils within the LNAPL zone and into soils above and below the LNAPL zone.

The extent of gasoline LNAPL affecting Mission Valley Terminal soil has been characterized using several methods, including soil screening via field methods, soil sampling, laser-induced fluorescence, soil vapor surveys, dissolved-phase indicators of LNAPL (e.g., high benzene concentrations in groundwater), and observations of LNAPL in groundwater monitoring wells. These data have been used to delineate the lateral and vertical extent of LNAPL-affected soil.

At the Terminal, LNAPL has historically been observed from the western corner of the southern SFPP tank farm area through the manifold area, in a relatively narrow band south into the northern parking area of the stadium property, and from the Texaco area into the northern parking area of the stadium property, collectively referred to as the “Main LNAPL Zone.”

The Main LNAPL Zone is divided along the Terminal’s southern boundary into the “on-Terminal LNAPL Zone” to the north and the “off-Terminal LNAPL Zone” to the south. The off-Terminal LNAPL Zone is the area of residual LNAPL in soil located south and southwest of the Terminal’s southern boundaries, and is depicted on Figure 2 as the area bounded by the “Estimated Extent of Residual LNAPL” line and the Terminal’s southern property boundary. To facilitate discussion of remedial performance and progress, this area is further divided into two sub-areas: (1) the primary and (2) the northwest, as shown on Figure 2. In this report, the portion of the historical off-Terminal LNAPL zone overlain by much of San Diego Mission Road and a 6-acre area of the Qualcomm Stadium parking lot lying north of the stadium facility is referred to as the “primary” portion. The “northwest” portion refers to the area where additional characterization commenced in late 2008 when analysis of SVE monitoring data collected from adjacent newly installed wells indicated that elevated concentrations of total petroleum hydrocarbons (TPH) should be further investigated. Subsequent characterization of the extent of the northwest off-Terminal LNAPL zone conducted through mid 2009 (LFR 2009b) showed that the interface between the northwest and primary portions includes SVE wells RW-38 through RW-40, RW-75, and RW-89 through RW-92, and SVM probes SV-21 through SV-22, SV-36, SV-52, and SV-59 through SV-62. These vapor extraction wells and vapor monitoring locations in this interface area are influenced by vapors originating in the northwest off-Terminal LNAPL zone.

A plan for remediation of the northwest off-Terminal LNAPL zone (LFR 2009c) was submitted to the RWQCB in late 2009, and construction of soil vapor extraction and treatment system (SVETS) No. 2 to remediate this area was completed on October 15, 2010. Testing of SVETS No. 2 commenced on October 28, 2010. Continuous operation of SVETS No. 2 commenced on December 29, 2010.

Detailed site descriptions and discussions of Terminal operations are presented in the *Site Conceptual Model and On-Terminal Corrective Action Plan* (“on-Terminal CAP”; LFR 2005a), the *Site Conceptual Model and Off-Terminal Corrective Action Plan* (“off-Terminal CAP”; LFR 2005b), the *Results of a Soil Vapor Survey to Assess Extent of Previously Uncharacterized LNAPL-Affected Soil in the Off-Terminal Area* (LFR 2009b), and the *Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2013* (ARCADIS 2014a).

4. LNAPL Zone Remediation

4.1 LNAPL Zone Remedial Strategy

The objective of the off-Terminal LNAPL zone remedial strategy is to remove residual LNAPL from subsurface soil to the extent technically practicable. The LNAPL zone remediation is in support of the greater overall objective to reduce concentrations of dissolved-phase petroleum hydrocarbons in off-Terminal groundwater to the proposed water quality objectives no later than December 31, 2013 (i.e., Directive No. 3 of Addendum No. 5 to CAO No. 92-01). Removal of residual LNAPL is intended to reduce concentrations of soluble petroleum hydrocarbons including, but not limited to, TPH (synonymous with total volatile organic compounds [VOCs] as noted in soil vapor data), benzene, toluene, ethylbenzene, and xylenes (BTEX), the fuel oxygenates methyl tertiary-butyl ether (MTBE) and tertiary butyl alcohol (TBA), and the fuel additive 1,2-dibromoethane (EDB).

Off-Terminal vadose zone remediation is being achieved through the following measures, as described in the off-Terminal CAP (LFR 2005b):

- SVE and bioventing supported by water table lowering in the off-Terminal LNAPL zone, and
- hydraulic containment of on-Terminal contamination.

Dewatering is performed to lower the water table and fully expose the off-Terminal LNAPL zone to SVE influence, and is achieved through groundwater extraction in the vicinity of the off-Terminal LNAPL zone. Groundwater extraction and groundwater monitoring activities are documented under separate cover in the quarterly groundwater monitoring and remedial progress reports for the Site.

4.1.1 Selected Approach and Practicable Benchmarks

SVE in combination with dewatering is a very commonly used approach for remediation of subsurface releases of fuel hydrocarbons, particularly fuel hydrocarbons that are volatile at ambient conditions (e.g., gasoline). When dewatering completely exposes the LNAPL zone to the influence of SVE, the depletion of the LNAPL by extraction of volatile fractions and aerobic biodegradation of non-volatile fractions is accelerated far beyond what naturally occurs in the subsurface. In general, SVE is most successful in coarser-grained soil where large volumes of soil vapor can be swept across the LNAPL zone and through the LNAPL-affected soil horizons. Several guidance-level documents are available that compile and synthesize at least

two and a half decades of experience with SVE (Johnson et al. 1990; Johnson and Stanley et al. 1990; U.S. Environmental Protection Agency 1997; U.S. Army Corps of Engineers 2002; Interstate Technology & Regulatory Council 2009).

The constituents of concern (COCs) at the Terminal are all in the volatile range that is amenable to vapor extraction as a remedial strategy. In addition, all of the COCs are aerobically biodegradable, so that the oxygenation action of SVE also contributes to their depletion and in-situ destruction. Further, the LNAPL zone extends from variable heights above the natural water table to only a few feet below the natural water table, so that relatively little dewatering can expose the entire LNAPL zone above the water table. Natural water table fluctuation induced smearing of the LNAPL as well as SVE prior to dewatering led to LNAPL being at or near residual saturation such that dewatering would not cause further downward spreading of LNAPL (LFR 2005a). Because the COCs and LNAPL are amenable to extraction of the volatile fraction and aerobic biodegradation, and there was no threat of inducing LNAPL migration during dewatering, it is reasonable to expect that effective application of SVE and dewatering over a sufficient time period would deplete COCs and LNAPL to acceptably low levels.

Ongoing use of the intersection of San Diego Mission Road and Mission Village Drive as major traffic and utility corridors presented limitations on the footprint of the remedial system infrastructure. SVE with dewatering was therefore favored as the practical remedial solution for this Site because it can be successfully and practicably implemented with all associated infrastructure placed underground, and with buried conveyance lines easily routed around obstructions. SVE and dewatering well placement is flexible enough that a significant variation from the design well spacing can be easily compensated for through the placement and/or operation of neighboring wells. SVE with dewatering is also amenable to an adaptive strategy, where evidence of less than adequate remedial progress can be easily addressed by infill with additional extraction and/or air inlet wells. However, the site-specific experience gained during remediation of the primary LNAPL zone led to a well-designed SVE network targeted to a specific remedial time frame.

4.1.2 Expectations for Selected Remedial Technology

As described in the previous section, SVE with dewatering was selected because it can be expected to remove the volatile and degradable fuel hydrocarbon LNAPL present at the Site so that the released material no longer poses a threat to expected groundwater uses. The general principles of SVE are well understood (Johnson et al. 1990; Johnson and Stanley et al. 1990; DiGiulio and Varadhan 2001) and a set of general expectations for the site-specific application

of SVE was produced by Johnson and Eggers (2005). Similar expectations were described in the off-Terminal CAP (LFR 2005b).

Expectations of what the selected remedial technology can practicably achieve in the off-Terminal LNAPL zone include:

- depletion of the most volatile hydrocarbons from LNAPL,
- depletion of less volatile hydrocarbons from LNAPL to the point where little or no LNAPL remains, and
- depletion of COCs from LNAPL so they no longer pose a risk to groundwater quality.

In practice, these general expectations or remedial goals must be stated in a way that is measurable, i.e., metrics and associated goals must be identified based on the theory of what SVE can be expected to achieve as well as site-specific knowledge.

Soil and vapor sampling at the Site has shown a correlation between areas where LNAPL level concentrations of TPH as gasoline-range organics (TPH-GRO) in soil are present (about 100 milligrams per kilogram [mg/kg]; Brost and DeVaul 2000) and observations of concentrations of TPH in soil vapor of about 500 parts per million by volume (ppmv) (LFR 2008). These are observations from areas of less weathered LNAPL. Where the LNAPL has been depleted of the most volatile hydrocarbons, soil vapor concentrations are likely to be lower than this threshold.

Modeling of volatile depletion of LNAPL (LFR 2007b, 2008) using HypeVent has suggested that at the point when $<C_8$ hydrocarbons in soil vapor are $<1\%$ of total hydrocarbons in soil vapor, TPH concentrations in soil vapor in equilibrium with LNAPL are on the order of 1,000 ppmv. Soil vapor samples represent an aggregate of the concentrations of volatile constituents from surrounding soil, a portion of which may (at the practicable endpoint of the selected remedial technology) have some remaining LNAPL composed of less volatile hydrocarbons as well as adsorbed or dissolved hydrocarbons. Thus, soil vapor samples represent vapor in equilibrium with LNAPL mixed with larger volumes of soil vapor originating from soil potentially absent of hydrocarbons. HypeVent models calibrated against site data suggest that soil vapor samples represent a dilution of vapor in equilibrium with LNAPL on the order of 10 to 100 times.

These two lines of evidence suggest that, when the remedial strategy has been operated to the extent practicable, it is reasonable to expect that:

- TPH-GRO in soil should be about 100 mg/kg,
- TPH-GRO in soil should be composed of heavier hydrocarbon fractions ($>C_8$),
- TPH in soil vapor should be about 10 ppmv to 100 ppmv, and
- $<C_8$ hydrocarbons in soil vapor should be about 0.1 ppmv (less than the reporting limit) to 1 ppmv.

Aerobic biodegradation is an expected mechanism for depletion of LNAPL, and, when occurring at a significant rate, it is expected to induce depletion of oxygen (O_2) and production of carbon dioxide (CO_2) in soil vapor relative to atmospheric levels. As the remedial strategy approaches the practicable limit of application and aerobic biodegradation slows, concentrations of O_2 and CO_2 are expected to approach atmospheric levels.

Since the overall objective of remediation is protection of groundwater resources, and LNAPL is the most significant source of impact to the groundwater at this Site, it is reasonable to expect that the selected remedial strategy will reduce leachable concentrations of COCs to the point at which they would not impact groundwater above the California primary maximum contaminant levels (MCLs) for BTEX and EDB, the California secondary MCL for MTBE, and the California Department of Public Health (CADPH) Notification and/or Response Levels for TBA. While this is not tied to the practicable removal of LNAPL for compliance with Directive No. 2, it is necessary for compliance with Directive No. 3.

Rebound testing is a standard confirmation testing protocol following successful application of the selected remedial technology (SVE with dewatering). It is expected that, during the rebound test, the depletion of LNAPL should be demonstrated by:

- no significant reoccurrence of $<C_8$ in soil vapor,
- no significant reoccurrence of COCs in soil vapor,
- no significant reoccurrence of TPH in soil vapor,
- no significant rate of O_2 depletion from soil vapor, and
- no significant rate of CO_2 reoccurrence in soil vapor.

The last two bullets assume that O₂ depletion and CO₂ reoccurrence are due solely to aerobic biodegradation of hydrocarbons.

4.2 Vadose Zone Remediation System

The northwest off-Terminal SVE system consists of 67 wells operating at up to 3,000 standard cubic feet per minute (scfm). Iterative performance and progress evaluations are used to assess the sufficiency of the SVE system for remediation of the northwest off-Terminal LNAPL zone. Quarterly evaluations of performance and semi-annual evaluations of progress are included in the quarterly monitoring and remedial progress reports. Remedial actions have been augmented as warranted by these evaluations.

The northwest off-Terminal LNAPL zone (Figure 2) includes 67 discrete vapor extraction wells at 59 locations (51 single-completion SVE wells and eight dual-completion wells). The 51 single-completion SVE wells are connected to SVETS No. 2, and the eight dual-completion SVE wells are connected to SVETS No. 1. Each SVE well is mechanically configured to function as either an active extraction well or a passive venting well. When operated in passive venting mode, the well's manifold connection is opened to atmosphere and ambient air is drawn into the well by the vacuum influence in the subsurface during active SVE.

The SVM probe network within the northwest off-Terminal LNAPL zone consists of 30 discrete SVM probes in 19 probe clusters. The SVM probes are used to collect data for evaluation of remedial performance and progress. Each probe cluster consists of one to two depth-discrete probes spanning the vertical extent of the LNAPL smear zone.

The locations of the SVE wells, SVM probes, and groundwater extraction (GWE) wells are shown on Figure 2. Further details of the remedial infrastructure are included in quarterly monitoring reports (ARCADIS 2014b).

4.3 Vadose Zone Remediation System Operation and Monitoring

Performance and progress metrics that make up the comprehensive monitoring program for the northwest off-Terminal LNAPL zone SVETS include:

- Operational status of the remedial system is a line of evidence that the SVETS and groundwater extraction and treatment system (GWETS) are operating as intended. Alarms notify system operators when the system has been automatically shut down. SVETS runtime is recorded and is one component of the data set used to track mass extraction and destruction.

- GWE well flow rate is a line of evidence that the dewatering portion of the remedial strategy is operating as intended.
- Depth to water in groundwater monitoring wells is a line of evidence that the dewatering portion of the remedial strategy is operating as intended to keep the LNAPL zone fully exposed to the influence of SVE.
- Vacuum is a line of evidence that the SVETS (from wells to blower and regenerative thermal oxidizer [RTO]) is operating as intended, that vacuum applied at SVE well screens is sufficient to influence all of the northwest off-Terminal LNAPL zone and, when observed at SVM probes, that the water table and/or capillary fringe is not rising into the LNAPL zone and blocking SVE influence.
- Flow rate is a line of evidence that the SVETS (from wells to blower and RTO) is operating as intended. Flow rate is one component of the data set used to track mass extraction and destruction.
- Monitoring and management of water that becomes entrained in the SVETS is a line of evidence that the SVETS (from wells to blower and RTO) is operating as intended.
- The concentration and composition of TPH in soil vapor is a line of evidence that the remedial strategy is performing as intended. TPH concentration is monitored in the field and by laboratory sample analysis, where TPH composition is also analyzed. TPH concentration is a component of the data set used to track mass extraction and destruction. TPH composition, including specific constituents and hydrocarbon fractions, is one component of the data set used to track remedial progress. Specifically, the $<C_8$ hydrocarbon fraction and its contribution to TPH are expected to decrease as remediation progresses.
- The concentration of O_2 and CO_2 in soil vapor is a line of evidence that the remedial strategy is performing as intended. O_2 and CO_2 data are used to assess whether the vapor extraction system is flushing sufficient quantities of atmospheric air through the LNAPL zone. These data are also components of the data set used to track the aerobic biodegradation component of remedial progress.
- Periodic soil sampling is performed to assess concentrations and composition of hydrocarbons in soil and leachate. A site-specific custom leaching procedure was developed to attain a water-to-soil ratio that is as low as possible to more closely replicate expected hydrocarbon fraction and COC concentrations in soil pore water (standard

leaching procedures include a high water-to-soil ratio and leachate dilution designed for a broad range of analytes and soil conditions). Periodic soil sampling data sets are used as lines of evidence for progress of the remedial strategy.

Details of the procedures and schedules by which these metrics were monitored are available in the quarterly vadose zone and groundwater reports (e.g., ARCADIS 2014a, 2014b) as well as in periodic soil sampling reports (e.g., ARCADIS 2014c).

5. Removal of LNAPL to the Extent Practicable

Removal of LNAPL to the extent practicable is a site-specific standard by which the incremental effort and impacts of remediation to points beyond those protective of the resource are balanced against the incremental benefit of further LNAPL removal. Demonstration that LNAPL has been removed to the extent practicable involves several aspects. State Water Resources Control Board Resolution No. 92-49 addresses these and is understood to be the overarching policy behind the directives of Addendum No. 5 (RWQCB 2005).

For the northwest off-Terminal LNAPL zone, removal of LNAPL to the extent practicable is demonstrated by:

- evidence indicating that conditions at the end of 2013 meet expectations for what the selected technology can achieve,
- evidence indicating that conditions at the end of 2013 are protective of beneficial uses of groundwater and will not result in water quality less than that prescribed, and
- evidence indicating that residual LNAPL has been removed to the extent that ongoing remedial efforts could provide only a disproportionately small incremental benefit.

5.1 Removal of LNAPL to the Extent Technologically Practicable

Multiple lines of evidence are used to demonstrate that conditions in the northwest off-Terminal LNAPL zone are consistent with expectations for what a well designed and operated SVE system can achieve.

5.1.1 Removal of LNAPL from Groundwater Monitoring Wells

Hydraulically recoverable LNAPL or mobile LNAPL has not been observed in the northwest off-Terminal LNAPL zone.

5.1.2 Trends in Remedial Tracking Metrics

The remedial metrics described in Section 4.3 were tracked throughout the course of remedial actions conducted in the northwest off-Terminal LNAPL zone to evaluate the performance and progress of the remedial strategy. Data tables, time-series graphs, and concentration plots, such as those included in the quarterly monitoring reports (e.g., ARCADIS 2014b) and periodic

soil sampling reports (e.g., ARCADIS 2014c) are valuable tools for assessing levels and trends of metrics.

5.1.2.1 Performance Metrics and Goals

Operational metrics show consistent extraction of volatile hydrocarbons since December 2010 when SVETS No. 2 commenced continuous operation (ARCADIS 2011a). Measurable vacuum observed in SVM probes has demonstrated that SVE has influenced portions of the northwest off-Terminal LNAPL zone since at least August 2005 (LFR 2005c) and the entire northwest off-Terminal LNAPL zone since December 2010. Observations of O₂ concentration >10% demonstrate that SVE flow through the northwest off-Terminal LNAPL zone was sufficient to maintain conditions conducive to aerobic biodegradation since early 2011. Dewatering of the northwest off-Terminal LNAPL zone started in November 2010, effectively exposing the formerly saturated portion of the LNAPL smear zone to SVE influence (ARCADIS 2011a), and its performance has been tracked by ongoing monitoring of groundwater elevations in monitoring wells. These metrics and their associated performance goals have provided strong evidence that the remedial strategy is effectively influencing the primary off-Terminal LNAPL zone.

TPH concentration and composition data from soil vapor, soil, and soil leachate were reviewed as appropriate and provided useful metrics for evaluating progress toward the remedial objective for the Site.

5.1.2.2 Soil Vapor Composition and Progress Evaluation

Soil vapor composition was proposed as a metric of remedial progress prior to the issuance of Addendum No. 5 (Johnson and Eggers 2005). It was suggested that the light hydrocarbon fraction consisting of hydrocarbons more volatile (or lighter) than octane (C₈) could be tracked, with the expectation that, as remediation neared the technically practicable endpoint, the lighter than octane hydrocarbons (<C₈ HC) should be less than or equal to about 1% of the total volatile hydrocarbons. This concept was used to develop and calibrate a model of LNAPL depletion by volatilization called HypeVent to predict whether the <C₈ HC target would be met by the end of 2013 (LFR 2007b).

HypeVent was used on multiple occasions to evaluate whether remedial progress appeared to be on track to meet the compliance criteria of Directive No. 2. Its initial use in 2011 helped set target flow rates at individual SVE wells and identified areas of the Site to focus remedial efforts toward meeting the goal of <C₈ HC being <1% of TPH. Through subsequent uses, HypeVent became less useful as the remedial objective was approached. The usefulness of HypeVent

became more limited as overall concentration reductions increased the ratio of the light hydrocarbon reporting limit to the remaining TPH concentrations, resulting in substantial noise in the data set and rendering later time data unusable. The final application of HypeVent to the northwest off-Terminal LNAPL zone took place in January 2013, after which the uncertainty of HypeVent evaluations was too high for them to be useful because of low $<C_8$ HC concentrations and/or low TPH concentrations.

5.1.2.3 Leachate Data and Progress Evaluation

Leachate concentrations in the northwest off-Terminal LNAPL zone have been monitored through periodic soil sampling for laboratory analysis (LFR 2007a, 2009b; ARCADIS 2010, 2011c, 2012, 2013a, 2014c). Periodic soil sampling has been conducted across the entire thickness of the LNAPL zone in 15 locations in the northwest off-Terminal LNAPL zone (LNSB-7 and LNSB-12 through LNSB-25). These 15 locations are shown on Figure 2.

Remediation has reduced the leachable concentrations of COCs with an MCL (toluene, ethylbenzene, xylenes, EDB, and MTBE) below California and federal MCLs by the dates shown in the table below. TBA, which does not have a California or federal MCL, has been reduced below the CADPH Notification Level, and reduced over an order of magnitude below the CADPH Response Level, by the dates shown in the table below. Plots of maximum leachate concentration at each LNSB location versus the cumulative volume of soil vapor extracted from the northwest off-Terminal LNAPL zone since October 2006 are shown on Figures 3a through 3o. The cumulative volume of soil vapor extracted versus time is shown on the inset to Figure 11.

**Date When Maximum Concentrations of All COCs in Leachate
 Were Shown to be below the MCL or CADPH NL for All COCs**

Periodic Soil Boring	Date (Cumulative SVE [ft ³])
LNSB-7	June 2012 (2.2×10 ⁹)
LNSB-12	February 2010 (0.5×10 ⁹)
LNSB-13	February 2010 (0.5×10 ⁹)
LNSB-14	May 2013 (3.6×10 ⁹)
LNSB-15	June 2012 (2.2×10 ⁹)
LNSB-16	May 2013 (3.6×10 ⁹)
LNSB-17	May 2013 (3.6×10 ⁹)
LNSB-18	May 2013 (3.6×10 ⁹)
LNSB-19	December 2013 (4.3×10 ⁹)
LNSB-20	May 2013 (3.6×10 ⁹)
LNSB-21	May 2013 (3.6×10 ⁹)
LNSB-22	May 2013 (3.6×10 ⁹)
LNSB-23	May 2013 (3.6×10 ⁹)
LNSB-24	May 2013 (3.6×10 ⁹)
LNSB-25	May 2013 (3.6×10 ⁹)

Notes:

ft³ = cubic feet

SVE = soil vapor extraction

Leachate data are one line of evidence that is considered when evaluating whether remediation has sufficiently removed LNAPL to mitigate the potential for the LNAPL zone to contribute to groundwater degradation. The trends observed in the leachate data generally supported the evaluation that LNAPL has been removed to the extent that it will not contribute to groundwater degradation.

5.1.2.4 Soil Data and Progress Evaluation

In addition to monitoring leachate concentrations, periodic soil sampling of the same 15 LNSB locations identified in the table above is used to monitor TPH concentration and composition in LNAPL zone soil (LFR 2007c, 2009a; ARCADIS 2010, 2011c, 2012, 2013a, 2014c).

At the time of the last periodic soil sampling event in December 2013, remediation had reduced TPH-GRO concentrations in soil at all 15 locations to below 100 mg/kg and to laboratory reporting limits in 12 of the 15 locations (LFR 2007a, 2009a; ARCADIS 2010, 2011c, 2012, 2013a, 2014c) as shown on Figures 4a through 4o. The maximum observed concentration of TPH-GRO in the final soil sampling at a given location was 3.7 mg/kg at LNSB-12C in December 2009. The TPH-GRO soil concentration threshold for the occurrence of separate phase LNAPL is about 100 mg/kg (Brost and DeVaul 2000). Below a TPH-GRO soil concentration of about 100 mg/kg, TPH-GRO mass is not sufficient to saturate the aqueous, vapor, and solid (adsorbed) phases and thus LNAPL is unlikely to be present. In addition, the time when TPH-GRO concentrations were observed to be below about 100 mg/kg correlates very well with the time when leachate concentrations of COCs with an MCL diminished below the California and federal MCLs and TBA, which does not have a California or federal MCL, diminished below the CADPH Notification Level, as shown in the table above.

Remediation progress can be expressed not just by the reduction of peak concentrations within the vertical interval of the LNAPL zone but also by the reduction of LNAPL volume at defined locations within the LNAPL zone. A metric for evaluating this is called LNAPL specific volume (American Petroleum Institute [API] 2003, 2007; Remediation Technologies Development Forum [RTDF] 2005). LNAPL specific volume is the volume of LNAPL that is present within a column of soil that encompasses the entire thickness of the LNAPL zone (extends from above the top of the LNAPL zone to below the bottom of the LNAPL zone). For example, consider a 1-foot (ft) by 1-ft column of soil 30 ft deep where the bottom of the LNAPL zone is less than 30 ft deep. If all the soil and water were removed from this 30-cubic-foot (ft³) volume, the LNAPL that remained would occupy some thickness in the 1-ft by 1-ft column. That thickness is the LNAPL specific volume. It is usually expressed in the units of length (thickness, e.g., ft), though more accurately it is a volume of LNAPL per unit area of the soil column (e.g., cubic feet per square foot [ft³/ft²]).

The LNAPL and COC specific volume has been estimated for each of the soil cores that have been collected through the LNAPL zone:

$$\left\{ \left[\sum_{i=1}^{n-1} C_i(D_{i+1} - D_i) \right] + C_n(D_n - D_{n-1}) \right\} \frac{\rho_s}{\rho_o} \times \frac{1}{(1,000 \text{ mg/g})(10^6 \text{ cc/m}^3)}$$

Where:

C_i is the TPH-GRO or COC concentration in soil sample i (mg/kg; numbered top to bottom from 1 to n)

D_i is the depth of the top of soil sample i (ft)

ρ_s is soil density (kilogram per cubic meter [kg/m^3]; assumed to be $1,500 \text{ kg}/\text{m}^3$)

ρ_o is LNAPL (oil) density (grams per cubic centimeter [g/cc]; assumed to be $0.78 \text{ g}/\text{cc}$)

Graphs of LNAPL and COC specific volume versus the volume of soil vapor extracted from the off-Terminal LNAPL zone since October 2006 for each periodic soil boring location in the northwest off-Terminal LNAPL zone are shown on Figures 5a through 5o. First, these time-series data demonstrate that LNAPL volume, both in terms of TPH-GRO and COCs, is reduced by about two orders of magnitude or to levels corresponding with laboratory reporting limits at about the same time that TPH-GRO soil concentrations are reduced to about $100 \text{ mg}/\text{kg}$, and at about the same time that leachate concentrations of COCs with an MCL are reduced below the California and federal MCLs and TBA, which does not have a California or federal MCL, is reduced below the CADPH Notification Level. These time-series graphs show significant reductions at three locations: LNSB-7, LNSB-12, and LNSB-14. These locations are particularly relevant examples because TPH-GRO and COC specific volumes were relatively high when remediation began. As of June 2012, TPH-GRO and COC specific volume at these three locations had been reduced by approximately two orders of magnitude, or to levels corresponding with laboratory reporting limits. At these same locations, as of June 2012 TPH-GRO concentrations in soil had also been reduced by at least two orders of magnitude and concentrations in leachate of COCs with an MCL are below California and federal MCLs and TBA, which does not have a California or federal MCL, is below the CADPH Notification Level. At all other locations, the specific volume during the last periodic soil sampling event was comparable to or lower than that at LNSB-7, LNSB-12, and LNSB-14.

Soil data are one line of evidence that is considered when evaluating the extent to which LNAPL has been removed. The trends observed in the soil data support the conclusion that LNAPL has been removed to the extent technically practicable.

5.1.2.5 Soil Vapor Concentration and Progress Evaluation

As documented above, soil and leachate data demonstrate that remediation has been effective at removing LNAPL in the northwest off-Terminal LNAPL zone. However, by its nature, soil sampling only tests a portion of the LNAPL zone. Soil vapor samples, on the other hand, represent larger-scale conditions in the LNAPL zone. The volume purged and collected for multiple 1-liter soil vapor samples represents a volume of soil that is more than an order of magnitude larger than a standard 2-inch-diameter by 6-inch-long soil sample, which contains about one-twentieth of a liter of soil gas. Advective and diffusive transport of soil vapor aggregates the total volume of soil that a soil vapor sample represents. At an SVE well, the

soil vapor samples can be thought of as representing the entire zone of influence of the SVE well. Soil vapor can thus provide a much larger-scale indicator of remedial progress, but by itself is not a direct observation of LNAPL mass, concentration, composition, or leachability.

By examining the soil vapor conditions surrounding the periodic soil sampling locations, a correlation between LNAPL removal and soil vapor conditions can be obtained. Periodic soil borings LNSB-7, LNSB-12, and LNSB-14 are the areas where correlation with surrounding soil vapor data is examined because these LNSB locations represent areas where highly LNAPL-affected initial soil conditions were remediated to remove LNAPL to the extent practicable and to mitigate the risk of future impairment to beneficial groundwater use. The table below lists the SVM probes and extraction wells surrounding these periodic soil boring locations.

Periodic Soil Boring Locations Where Risk Reduction and LNAPL Removal Have Been Demonstrated and Surrounding Soil Vapor Monitoring Probes and Extraction Wells

Periodic Soil Boring	Soil Vapor Monitoring Probes and Extraction Wells
LNSB-7	SV-21 SV-61 RW-39 RW-92 RW-202
LNSB-12	SV-59 RW-90 RW-204
LNSB-14	SV-210 RW-249 RW-250

Soil vapor data of interest at these probes/wells include the concentrations of TPH vapors, <C₈ HC vapors, and oxygen. Time-series graphs of these data are included in Appendix A. Other soil vapor conditions that may be of interest are concentrations of BTEX and MTBE vapors and CO₂ (ARCADIS 2014b).

The following soil vapor conditions in nearby soil borings suggest that LNAPL has been removed to the extent technically practicable:

- TPH concentrations in soil vapor are below about 100 ppmv and in many cases are approaching or below about 10 ppmv.

- $<C_8$ HC concentrations in soil vapor are less than about 1 ppmv, which is the nominal reporting limit for that fraction.
- Oxygen concentrations are within about 2% of atmospheric concentration (20.9%) and in many cases are nearly atmospheric.

LNSB-7 is located at the far east of the northwest off-Terminal LNAPL zone, along the border with the primary off-Terminal LNAPL zone. It is approximately midway between the surrounding SVE wells RW-39, RW-92, and RW-202, and near SVM probe SV-21. Soil vapor conditions at the SVE wells were asymptotic approximately 6 months before the final soil boring at LNSB-7 indicated that LNAPL was removed to the extent technically practicable in June 2012. SV-21AD-R, which was also installed in June 2012, confirms the soil vapor concentrations observed at the SVE wells.

LNSB-12 is located west of LNSB-7 along the border between the northwest and primary off-Terminal LNAPL zones. It is located near RW-90 and SV-59. LNAPL at LNSB-12 was removed to the extent practicable by December 2009, before SVETS No. 2 was brought on line. Surrounding soil vapor TPH concentrations had dropped below approximately 100 ppmv when the final soil boring was advanced, and continued to drop to non-detect levels by June 2012.

LNSB-14 is located at the far west of the northwest off-Terminal LNAPL zone, in the area that was most recently dewatered. It is located near RW-249, RW-250, and SV-210. Soil vapor conditions were asymptotic at about the same time or shortly before LNAPL was removed to the extent practicable at the soil boring.

At other periodic soil borings in the northwest off-Terminal LNAPL zone, LNAPL was generally not observed, and therefore correlations with soil vapor data cannot be made.

Soil vapor conditions are consistent with these observations at SVE wells and SVM probes across the northwest off-Terminal LNAPL zone, where the soil and leachate data demonstrate LNAPL removal to the extent practicable. These soil vapor conditions can be used as lines of evidence in determining that the northwest off-Terminal LNAPL zone is compliant with the requirements of Directive No. 2.

5.1.2.6 Conclusions about Use of Performance and Progress Metrics

The use of remedial performance and progress metrics described in Sections 5.1.2.1 through 5.1.2.5 establishes several key points important to the assertion that the remedial strategy has been applied to the extent technically practicable.

First, the multiple performance metrics establish that the SVE and dewatering systems were designed and operated in an adaptive and iterative manner such that the remedial strategy was applied across the entire northwest off-Terminal LNAPL zone.

Second, the multiple progress metrics establish that natural variability in LNAPL mass distribution across the northwest off-Terminal LNAPL zone and the ability of the remedial strategy to remove that LNAPL were thoroughly evaluated and responded to in a manner resulting in LNAPL removal to the extent technically practicable.

5.1.3 Expectations for Selected Remedial Technology Achieved

5.1.3.1 Expected Soil and Leachate Conditions Achieved

More extensive soil sampling was performed during the Event 9 periodic soil sampling in May 2013 (ARCADIS 2013a) to test soil and leachate throughout the northwest off-Terminal LNAPL zone. The results from 10 of the 11 locations demonstrated LNAPL removal and leachate concentrations that were below both laboratory reporting limits and California and federal MCLs for COCs with an MCL, and TBA concentrations at all 10 locations that were below the CADPH Notification Level. One location (LNSB-19) was resampled during the Event 10 periodic soil sampling in December 2013, at which point it also demonstrated LNAPL removal and leachate concentrations that were below both laboratory reporting limits and California and federal MCLs for COCs with an MCL, and TBA concentrations that were below the CADPH Notification Level (ARCADIS 2014c).

- TPH-GRO was not observed in soil at concentrations above the laboratory reporting limit in 9 of the 11 locations and was not observed above 1.4 mg/kg. The maximum TPH-GRO concentration observed in the final periodic soil samples was 1.4 mg/kg (LNSB-14).
- Benzene in leachate was observed above the California MCL of 0.001 milligram per liter (mg/L) at one location (LNSB-19) during the Event 9 soil sampling. During the Event 10 soil sampling performed at LNSB-91 in December 2013, benzene was not observed above the reporting limit (0.001 mg/L).

- Toluene was not observed in leachate above the California MCL of 0.15 mg/L during Events 9 and 10. The maximum toluene concentration observed in leachate from Events 9 and 10 was 0.01 mg/L (LNSB-19A).
- Ethylbenzene was not observed in leachate above the California MCL of 0.300 mg/L during Events 9 and 10. The maximum ethylbenzene concentration observed in leachate from Events 9 and 10 was 0.0083 mg/L (LNSB-19A).
- Total xylenes was not observed in leachate above the California MCL of 1.75 mg/L during Events 9 and 10. The maximum total xylenes concentration observed in leachate from Events 9 and 10 was 0.059 mg/L (LNSB-19A).
- MTBE was not observed in leachate above the California secondary MCL of 0.005 mg/L or above the laboratory reporting limit of 0.005 mg/L during Events 9 and 10.
- TBA was not observed in leachate from any of the confirmation samples at concentrations above the CADPH Notification or Response Levels of 0.012 mg/L and 1.2 mg/L, respectively, or above the laboratory reporting limit of 0.01 mg/L during Events 9 and 10.

As the above summary indicates, the soil conditions documented during Events 9 and 10 are consistent with the expectations for a well designed and operated SVE system and further support the conclusion that residual LNAPL has been removed to the extent technically practicable. The TPH data indicate that LNAPL has been effectively removed with only relatively small amounts of heavier and less volatile hydrocarbon fractions remaining.

Maximum Observed TPH-GRO Concentration in Soil and COC Concentration in Leachate at the Final Sampling Event for Periodic Soil Boring Locations in the Northwest off-Terminal LNAPL Zone

Periodic Soil Boring	Date	TPH-GRO (mg/kg)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	TBA (mg/L)
LNSB-7	June 2012	<0.39	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01
LNSB-12	February 2010	3.7	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01
LNSB-13	February 2010	<0.49	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01
LNSB-14	May 2013	1.4	<0.001	0.0022	<0.002	0.0022	<0.005	<0.01
LNSB-15	June 2012	<0.4	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01
LNSB-16	May 2013	<0.4	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01
LNSB-17	May 2013	<0.4	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01
LNSB-18	May 2013	<0.39	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01
LNSB-19	December 2013	<0.5	<0.001	0.0045	<0.002	0.0089	<0.005	<0.01
LNSB-20	May 2013	<0.4	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01
LNSB-21	May 2013	<0.39	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01
LNSB-22	May 2013	<0.39	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01
LNSB-23	May 2013	<0.4	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01
LNSB-24	May 2013	<0.4	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01
LNSB-25	May 2013	0.43	<0.001	<0.002	<0.002	<0.002	<0.005	<0.01

Notes:

mg/L = milligrams per liter

mg/kg = milligrams per kilogram

MTBE = methyl tertiary butyl ether

TBA = tertiary butyl alcohol

Observation of TPH in soil and COCs in leachate at the 15 periodic soil sampling (LNSB) locations in the northwest off-Terminal LNAPL zone show similar patterns. Final observations at LNSB locations have been made over longer time periods because individual boring locations were retired and no longer sampled after observations of TPH-GRO in soil became lower than about 100 mg/kg and LNAPL was no longer likely to be present, and after observations of COCs in leachate became lower than both the laboratory reporting limits and California and federal MCLs for COCs with an MCL, and TBA, which does not have a California or federal

MCL, concentrations became lower than the CADPH Notification Level. The leachate values at these retired LNSB locations are the same as those shown as the final data points on Figures 3a through 3o, and the soil values are the same as the maximum shown for the final sampling event on Figures 4a through 4o. It should also be noted that, as depicted on Figures 4a through 4o, these are the maximum values observed over the entire depth interval sampled at each of these locations.

5.1.3.2 *Expected Soil Vapor Conditions Achieved when Remedial System is Operating*

As demonstrated by the fourth quarter 2013 soil vapor data (ARCADIS 2014b) and by pre-rebound baseline soil vapor data (Appendix B) shown on Figures 6a, 7a, 8a, 9a, and 10a, conditions in the northwest off-Terminal LNAPL zone under active SVE meet the expectations for what a well designed and operated SVE system can achieve:

- TPH in soil vapor is below about 100 ppmv, with concentrations below about 10 ppmv observed at the vast majority of the SVM and SVE points, and
- $<C_8$ HC in soil vapor is below about 1 ppmv, with concentrations below the laboratory reporting limits observed at the vast majority of the SVM and SVE points.

5.1.3.3 *SV-21AD*

Historical and ongoing soil vapor data from SV-21AD are not consistent with those from neighboring monitoring locations. Monitoring data from neighboring probes and wells suggest that remedial goals have generally been achieved in this area; however, the SV-21AD probe has been characterized by persistently high concentrations of TPH and $<C_8$ HC.

A duplicate deep SVM probe, designated SV-21AD-R, was installed adjacent to the existing SV-21 SVM probe cluster at approximately the same depth as SV-21AD (ARCADIS 2012). The current and historical data collected from probe SV-21AD-R are consistent with data and remedial progress indicators observed in neighboring probes and wells, providing additional evidence that the SV-21AD probe is not representative of general subsurface conditions in the surrounding area. The TPH and $<C_8$ HC fraction concentrations observed in SV-21AMD, installed about 6 feet above SV-21AD, are slightly higher than those in the neighboring probes and wells, and may reflect biased conditions similar to those observed at SV-21AD but to a much smaller degree.

Both SV-21AD and SV-21AD-R were monitored and sampled during the rebound test performed in January 2014, but only results from SV-21AD-R are considered for evidence of remedial compliance.

5.1.3.4 *Expected Soil Vapor Conditions Achieved during Post-Remedial Rebound Testing*

As stated above in Section 4.1.2, following a successful implementation of SVE, no significant reoccurrence of TPH and $<C_8$ HC in soil vapor should be expected during soil vapor rebound testing, and fixed gas concentrations should be consistent with low rates of biodegradation.

A four-week soil vapor rebound test was conducted by shutting down all SVE at the Site on December 31, 2013 and monitoring SVE wells and SVM probes weekly through January 28, 2014. SVM and SVE sampling for laboratory analysis was conducted on December 23, 2013, prior to SVE shutdown on December 31, 2013. The SVM during rebound is used to evaluate whether significant petroleum hydrocarbons remain in the northwest off-Terminal LNAPL zone (ARCADIS 2013b; RTDF 2005).

During the baseline sampling, TPH was observed above laboratory reporting limits at 5 out of 78 locations. At the conclusion of the rebound test, TPH was observed above laboratory detection limits at 6 out of 78 locations. Analytical TPH concentrations above 10 ppmv were only observed at SV-210 (19 ppmv) at the conclusion of the test. These data show that there was no significant reoccurrence of TPH in soil vapor over the course of the rebound test, which is consistent with the expectations for what a well designed and operated SVE system should be able to achieve. Field TPH concentrations are shown on Figures 6a and 6b; analytical TPH concentrations are shown on Figures 9a and 9b.

During the baseline sampling, $<C_8$ HC concentrations were observed above laboratory reporting limits in only 1 out of 78 locations (SV-209). At the conclusion of the rebound test, $<C_8$ HC concentrations were observed above laboratory reporting limits at two locations (SV-209 and SV-210). The maximum observed $<C_8$ concentration was 9.9 ppmv (SV-210) at the conclusion of the test. These data show that there was no significant reoccurrence of $<C_8$ HC in soil vapor over the course of the rebound test, which is consistent with the expectations for what a well designed and operated SVE system should be able to achieve. $<C_8$ HC concentrations are shown on Figures 10a and 10b.

The number of locations where O_2 concentrations were observed near atmospheric conditions (between 18.9% and 20.9%) decreased over the duration of the rebound test, from 76 locations (about 97%) to 34 locations (about 43%), with a minimum observed concentration of 13.4% (SV-205), as shown on Figures 7a and 7b.

Factors contributing to declining O₂ concentrations observed during the rebound test include biodegradation of hydrocarbons as well as other organic material and dissolution of O₂ in groundwater. Groundwater in the area has a naturally low (typically below 1 mg/L) O₂ concentration that is reinforced by O₂ consumption through bioactivity (ARCADIS 2011b). Under natural, static vadose zone conditions in this area (i.e., one not under the [recent] influence of SVE), it is expected that an O₂ profile from near atmospheric at the surface to near zero at the capillary fringe and water table would be observed.

Unlike O₂, CO₂ concentrations stabilized during the latter portion of the rebound test, suggesting that O₂ uptake by the groundwater below the LNAPL zone was a significant contributor to observed O₂ declines. CO₂ concentrations before and at the end of rebound are shown on Figures 8a and 8b. Had biological activity been driving the O₂ depletion, CO₂ concentrations would have been expected to continue increasing throughout the rebound test.

In light of the naturally low O₂ concentrations in groundwater, these data show that no significant aerobic biodegradation in the vadose zone appeared to occur over the course of the rebound test, which is consistent with the expectations for what a well designed and operated SVE system should be able to achieve. Additional details of the rebound test are provided in Appendix B.

5.1.4 Selected Technology Applied to Extent Practicable

Sections 5.1.1 through 5.1.3 have shown that conditions consistent with the application of the selected technology to the extent practicable have been achieved. It is also useful to examine the benefit versus effort for the remedial actions. This can be examined for the selected technology by plotting mass extraction rates, LNAPL specific volume, and COC concentrations in leachate against the total volume of air moved through the remediation zone. It is expected that the extent to which it is practicable to apply the selected technology will appear as an inflection point on such a graph.

On plots of mass and mass extraction rates versus cumulative volume of soil vapor extracted, shown on Figures 11 through 13, a significant inflection point appears at about 2 billion ft³ extracted for the mass extracted by volatilization. In terms of total mass removal, the incremental benefit from further remedial action beyond this point is disproportionately diminished relative to the required effort. This suggests that the remedial strategy has operated well beyond the extent practicable.

On plots of cumulative mass destroyed by biodegradation and biodegradation rates versus cumulative volume of soil vapor extracted, shown on Figure 11 through 13, a significant

inflection point appears at about 1 billion ft³ extracted for the mass destroyed by biodegradation. Following this inflection point, continued oxygen utilization is observed. This may be due to oxygen demand from non-petroleum carbon sources present in the northwest LNAPL zone (ARCADIS 2014b).

On plots of LNAPL specific volume and COC concentrations in leachate versus cumulative volume of soil vapor extracted, inflection points are observed at periodic soil sampling locations LNSB-7 and LNSB-14 (Figures 3a, 3d, 5a, and 5d) and are consistent with the inflection points observed after about 1 to 2 billion ft³ were extracted, as noted in the previous paragraph. It should be noted that graphs of LNSB-12, LNSB-13, and LNSB-15 (Figures 3b, 3c, 3e, 5b, 5c, and 5e) cut off when soil and leachate concentrations achieved conditions consistent with removal of LNAPL, and these cutoff points could also be interpreted as inflection points, which would also be consistent with the interpretation of LNAPL removal to the extent practicable after about 1 to 2 billion ft³ were extracted. At LNSB-19, leachate data (Figure 3i) are observed to decline between times corresponding to about 3.5 and 4.3 billion ft³ extracted, suggesting that at the western end of the northwest off-Terminal LNAPL zone LNAPL removal to the extent practicable was achieved near the end of remedial activities in 2013. At other periodic soil sampling points where only one sampling event was conducted, an interpretation of an inflection point is not possible.

These data demonstrate that further operation of the remedial strategy in the northwest off-Terminal LNAPL zone will not achieve any additional significant removal.

5.2 Removal of LNAPL for Protection of Beneficial Uses

One of the expected outcomes of implementing the remedial strategy is that conditions at the end of its implementation are protective of beneficial uses of groundwater and will not result in water quality less than the groundwater remedial goals. Leachate data are the most practicable way, in the short term, to test the potential risk to groundwater quality posed by formerly LNAPL-affected soil. Dewatering activities in the stadium parking lot were discontinued on January 28, 2014; groundwater levels in this area will recover to natural levels, and groundwater monitoring will be used as the metric for determining compliance with Directive No. 3 of Addendum No. 5.

Leachate data collected from confirmation soil borings and periodic soil borings (Section 5.1.3.1) show that soil conditions in the northwest off-Terminal LNAPL zone are protective of beneficial uses and would not cause exceedances of the groundwater goals required by Directive No. 3 of Addendum No. 5. Groundwater quality goals are commonly measured at the smallest scale by groundwater monitoring wells, which aggregate

groundwater over an approximately 5- to 10-ft thickness of the water-bearing zone. As demonstrated by the results of the detailed vertical sampling and leachate analysis conducted in the periodic soil core sampling borings, groundwater quality would not be expected to exceed the site cleanup goals in samples collected from monitoring wells.

6. Conclusions

Directive No. 2 of Addendum No. 5 to CAO No. 92-01 requires the removal of “residual LNAPL from subsurface soil and ground water... to the extent technically practicable” from the off-Terminal area (RWQCB 2005). The RWQCB has stated that, for the purpose of setting soil cleanup levels, it “interprets ‘to the extent technically practicable’ to be comparable to the ‘technical and economic feasibility’ requirement in Resolution 92-49” (RWQCB 2011a).

A remedial strategy of SVE coupled with localized lowering of the groundwater table that had been successfully applied to the primary off-Terminal LNAPL zone was selected and applied to the northwest off-Terminal LNAPL zone. The SVE and dewatering systems were designed based on site-specific experience gained during remediation of the primary off-Terminal LNAPL zone, and operation was adjusted as warranted by ongoing evaluation of remedial performance and progress data.

Remediation was evaluated through a robust set of system performance and progress metrics, allowing adaptive, optimized operation of the remedial systems. Progress metrics demonstrated that remedial goals had been achieved across the northwest off-Terminal LNAPL zone by the end of 2013. These metrics and goals include demonstrations that:

- SVETS capacity was maximized both in terms of throughput rates (instantaneous flow) and total throughput (system uptime);
- Dewatering of the LNAPL zone was maintained and confirmed through water level monitoring and comparison to targets, ability to draw vapors from soil vapor probes at the bottom of the LNAPL zone, and levels of oxygen and carbon dioxide consistent with effective sweep of the deepest portions of the LNAPL zone;
- Reduction of the concentration of hydrocarbon vapors and change of the composition of hydrocarbon vapors to predominantly less volatile hydrocarbons;
- Reduction of the aerobic biodegradation of hydrocarbons reflected by both oxygen consumption and carbon dioxide production;
- Reduction of hydrocarbon concentrations in soil, change of the composition of hydrocarbons in soil to predominantly less volatile and soluble hydrocarbons, and reduction of the leachability of hydrocarbons, particularly COCs, from soil.

These are lines of evidence that had been achieved to the extent practicable at the end of 2013 remediation. Furthermore, an evaluation of mass extraction rates, LNAPL specific volume, and COC concentrations in leachate versus the total cumulative volume of soil vapor extracted reveals that, in terms of total mass removal: (1) the incremental benefit from further SVE would be disproportionately small relative to the required effort, and (2) after extracting over 4.3 billion ft³ of soil vapor by the end of 2013, no significant additional LNAPL removal can be achieved.

A soil vapor rebound test was performed in January 2014 to generate additional supporting lines of evidence that remediation to the extent technically practicable has been achieved. This rebound test demonstrated that there is little to no hydrocarbon remaining to either increase hydrocarbon vapor concentrations or exert oxygen demand or carbon dioxide production through aerobic biodegradation.

The overall results of this remedial compliance evaluation demonstrate that the remedial strategy has removed LNAPL from the northwest off-Terminal LNAPL zone to the extent technically practicable, and the cleanup levels achieved are: (1) protective of beneficial uses for groundwater; (2) consistent with the end-state expectations for the selected remedy; and (3) consistent with the maximum benefit to the people of the state.

7. Certification

All engineering information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by the undersigned ARCADIS California Professional Engineer.



C. Fredrik Ahlers, P.E.
Principal Civil Engineer
Project Technical Director
California Professional Engineer # C-66471



March 28, 2014
Date

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8. Limitations Statement

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by ARCADIS U.S., Inc. (ARCADIS) and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty or guarantee, express or implied, is intended or given. To the extent that ARCADIS relied upon any information prepared by other parties not under contract to ARCADIS, ARCADIS makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

Results of any investigations or testing and any findings presented in this report apply solely to conditions existing at the time when ARCADIS' investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the project site may vary from those at the locations where data were collected. ARCADIS' ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100% confidence in environmental investigation conclusions cannot reasonably be achieved.

ARCADIS, therefore, does not provide any guarantees, certifications or warranties regarding any conclusions regarding environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

9. References

- American Petroleum Institute (API). 2003. *Models for Design of Free Product Recovery Systems for Petroleum Hydrocarbon Liquids*. API Publication 4729. August.
- API. 2007. *LNAPL Distribution and Recovery Model (LDRM)*. API Publication 4760. January.
- ARCADIS U.S., Inc. (ARCADIS). 2010. *Results of Periodic Soil Investigation, Event 4, Mission Valley Terminal, San Diego, California*. May 21.
- ARCADIS. 2011a. *Quarterly Vadose Zone Monitoring and Remedial Progress Report, Fourth Quarter of 2010, Mission Valley Terminal, San Diego, California*. January 28.
- ARCADIS. 2011b. *Rebound Testing and Confirmation Soil Sampling in the Primary Off-Terminal LNAPL Zone, Mission Valley Terminal, San Diego, California*. June 27.
- ARCADIS. 2011c. *Results of Periodic Soil Investigation, Event 7, Mission Valley Terminal, San Diego, California*. November 16.
- ARCADIS. 2012. *Results of Periodic Soil Investigation, Event 8, Mission Valley Terminal, San Diego, California*. October 11.
- ARCADIS. 2013a. *Results of Periodic Soil Investigation, Event 9, Mission Valley Terminal, San Diego, California*. September 12.
- ARCADIS. 2013b. *Work Plan for Rebound Testing in the Northwest Portion of the Off-Terminal LNAPL Zone, Mission Valley Terminal, San Diego, California*. October 25.
- ARCADIS. 2014a. *Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2013, Mission Valley Terminal, San Diego, California*. January 30.
- ARCADIS. 2014b. *Vadose Zone Monitoring and Remedial Progress Report, Fourth Quarter of 2013, Mission Valley Terminal, San Diego, California*. January 30.
- ARCADIS. 2014c. *Results of Periodic Soil Investigation, Event 10, Mission Valley Terminal, San Diego, California*. February 21.
- Brost, E.J., and G.E. DeVaul. 2000. *Non-Aqueous Phase Liquid (NAPL) Mobility Limits in Soil*. Soil and Groundwater Research Bulletin No. 9. American Petroleum Institute. June.

- California Regional Water Quality Control Board, San Diego Region (RWQCB). 2005. *Addendum No. 5 to Cleanup and Abatement Order No. 92-01*. April 13.
- RWQCB. 2010. *Addendum No. 6 to Cleanup and Abatement Order no. 92-01*. January 19.
- RWQCB. 2011a. *Revised Off-Terminal LNAPL Zone Remedial Compliance Evaluation*. January 3.
- RWQCB. 2011b. *Addendum No. 7 to Cleanup and Abatement Order No. 92-01*. December 20.
- DiGiulio, D.C., and R. Varadhan. 2001. *Development of Recommendations and Methods to Support soil Venting Performance and Closure*. U.S. EPA, ORD, EPA/600/R-01/070.
- Interstate Technology & Regulatory Council. 2009. *Evaluating LNAPL Remedial Technologies for Achieving Project Goals*. December.
- Johnson, P. and M. Eggers. 2005. *Comments Regarding Remediation Considerations for the Mission Valley Terminal Site, San Diego, California*. January 7.
- Johnson, P.C., M.W. Kemblowski, and J.D. Colthart (Johnson et al.). 1990. *Quantitative Analysis for the Cleanup of Hydrocarbon-Contaminated Soils by In Situ Soil Venting*. Ground Water Journal. 3(28): 413-29.
- Johnson, P.C., C.C. Stanley, M.W. Kemblowski, D.L. Byers, and J.D. Colthart (Johnson and Stanley et al.). 1990. *A Practical Approach to the Design, Operation, and Monitoring of In Situ Soil Venting Systems*. Ground Water Monitoring Review. 10(2): 159-78.
- LFR Inc. (LFR). 2007a. *Results of Periodic Soil Investigation, Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California*. October 30.
- LFR. 2007b. *Evaluation of Remedial Progress in the Off-Terminal LNAPL Zone, Mission Valley Terminal, San Diego, California*. October 31.
- LFR. 2008. *Quarterly Groundwater and Remedial Progress Report, Second Quarter of 2008, Mission Valley Terminal, San Diego, California*. July 29.
- LFR. 2009a. *Results of Periodic Soil Investigation, Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California*. June 25.

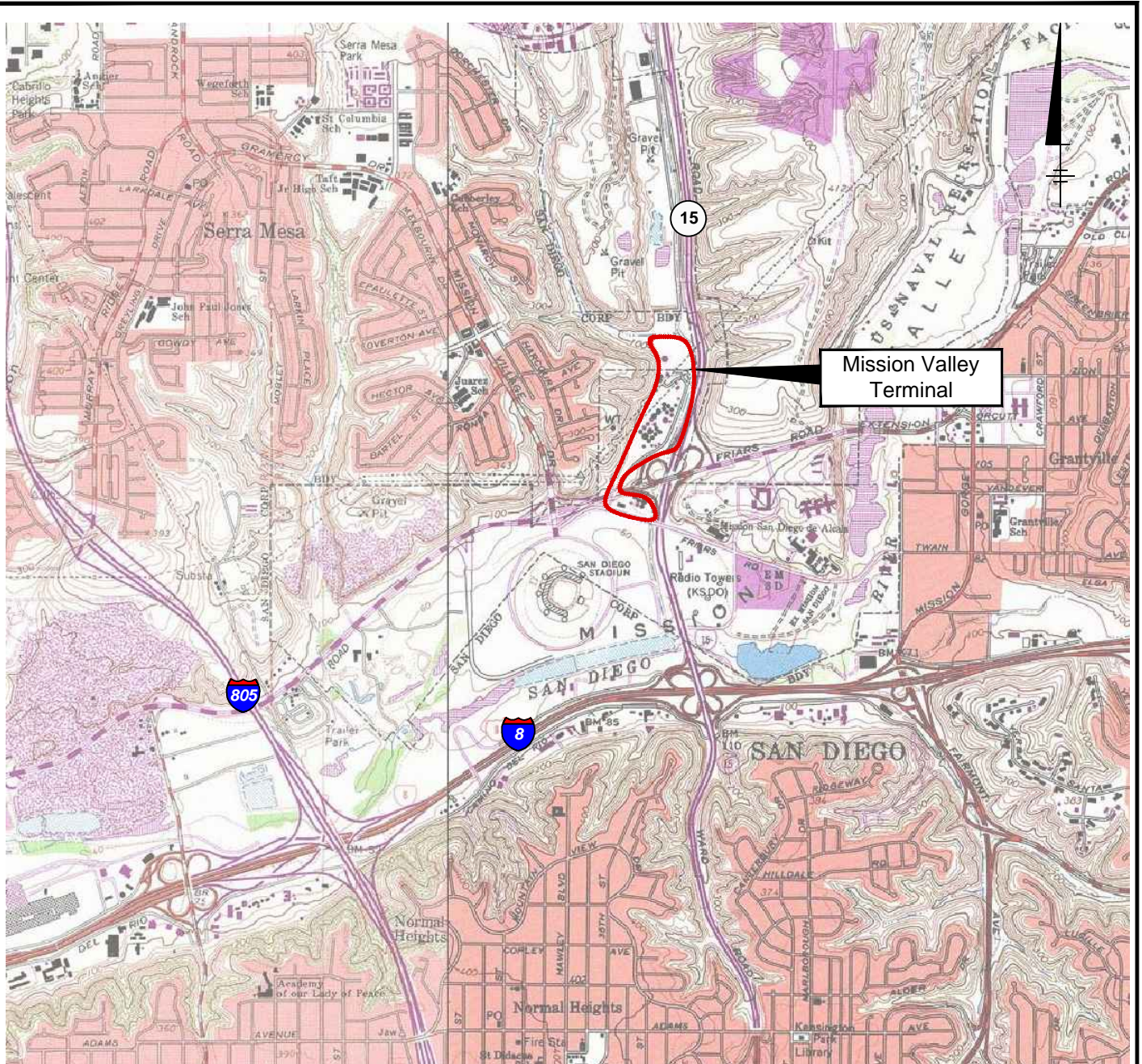
- LFR. 2009b. *Results of a Soil Vapor Survey to Assess Extent of Previously Uncharacterized LNAPL-Affected Soil in the Off-Terminal Area, Mission Valley Terminal, San Diego, California*. July 24.
- LFR. 2009c. *Work Plan for Installation of Off-Terminal Soil Vapor Extraction Wells and Soil Vapor Monitoring Probes, Recently Delineated Off-Terminal LNAPL Area, San Diego, California*. November 17.
- LFR Levine-Fricke (LFR). 2005a. *Site Conceptual Model and On-Terminal Corrective Action Plan, Mission Valley Terminal, San Diego, California*. September 8.
- LFR. 2005b. *Site Conceptual Model and Off-Terminal Corrective Action Plan, Mission Valley Terminal, San Diego, California*. September 8.
- LFR. 2005c. *Quarterly Groundwater Monitoring and Remedial Progress Report, 3rd Quarter of 2005, Mission Valley Terminal, San Diego, California*. October 28.
- Remediation Technologies Development Forum (RTDF). 2005. *“The Basics” Understanding the Behavior of Light Non-Aqueous Phase Liquids (LNAPLs) in the Subsurface*. <http://www.rtdf.org/public/napl/training/module1.pdf>. February.
- U.S. Army Corps of Engineers. 2002. *Engineering and Design – Soil Vapor Extraction and Bioventing*. EM 1110-1-4001.
- U.S. Environmental Protection Agency. 1997. *Analysis of Selected Enhancements for Soil Vapor Extraction*. EPA-542-R-97-007.

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Figures

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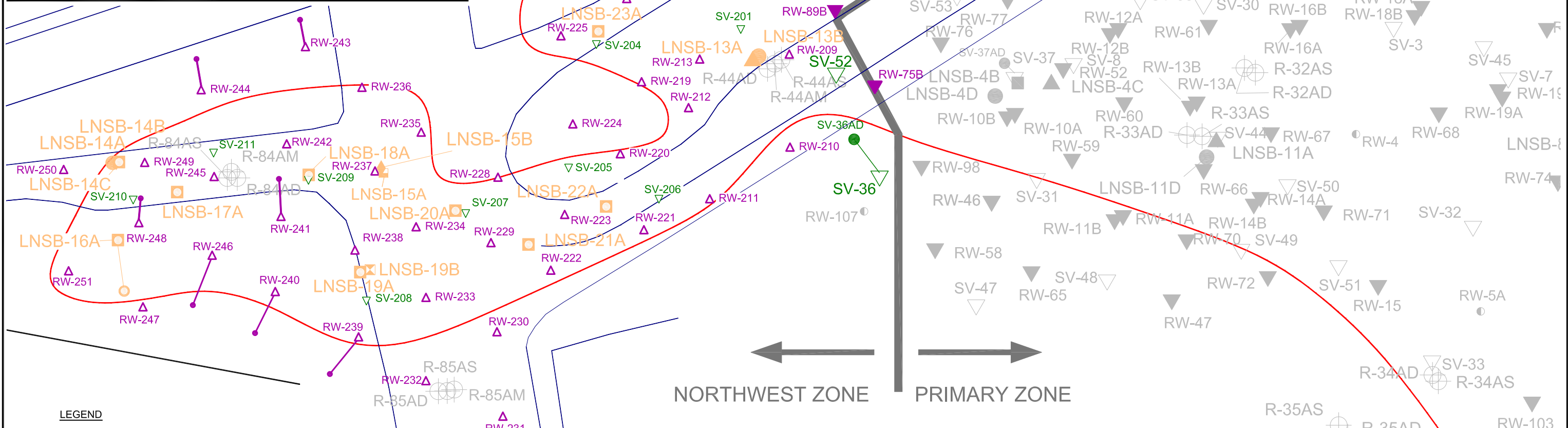
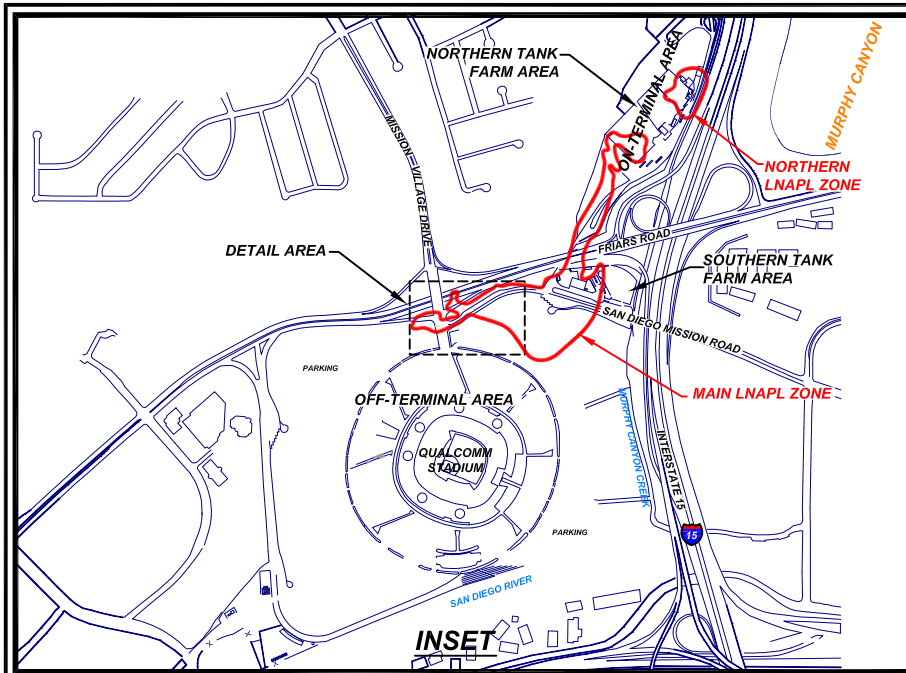
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MISSION VALLEY TERMINAL SAN DIEGO, CALIFORNIA	
VICINITY MAP	
	FIGURE 1

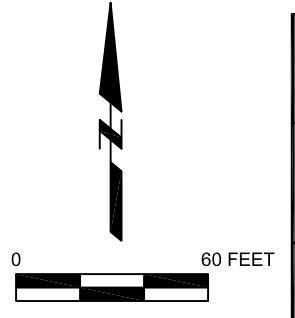
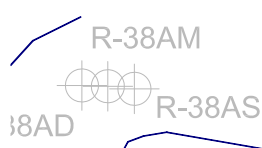
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LEGEND

- Event 10 Periodic Soil Sampling Location (December 2013)
- Event 9 Periodic Soil Sampling Locations (LNSB-16A = Angle Boring) (May 2013)
- Event 8 Periodic Soil Sampling Locations and Investigation/Well Replacement Locations (June 2012)
- Event 7 Periodic Soil Sampling Location (September 2011)
- Event 4 Periodic Soil Sampling Locations (December 2009 and February 2010)
- Event 3 Periodic Soil Sampling Locations (February 2009 and April 2009)
- Event 2 Periodic Soil Sampling Locations (March 2007)
- Estimated Extent of Residual LNAPL
- Boundary between Primary and Northwest Off-Terminal LNAPL Zone
- Groundwater and Soil Vapor Extraction Well
- Groundwater Monitoring Well
- Angled Soil Vapor Monitoring Probe
- Soil Vapor Extraction Well
- Soil Vapor Monitoring Probe
- Soil Vapor Extraction Well (Vertical)
- Soil Vapor Monitoring Probe
- Soil Vapor Extraction Well (Angle up to 50° from horizontal)



MISSION VALLEY TERMINAL
SAN DIEGO, CALIFORNIA

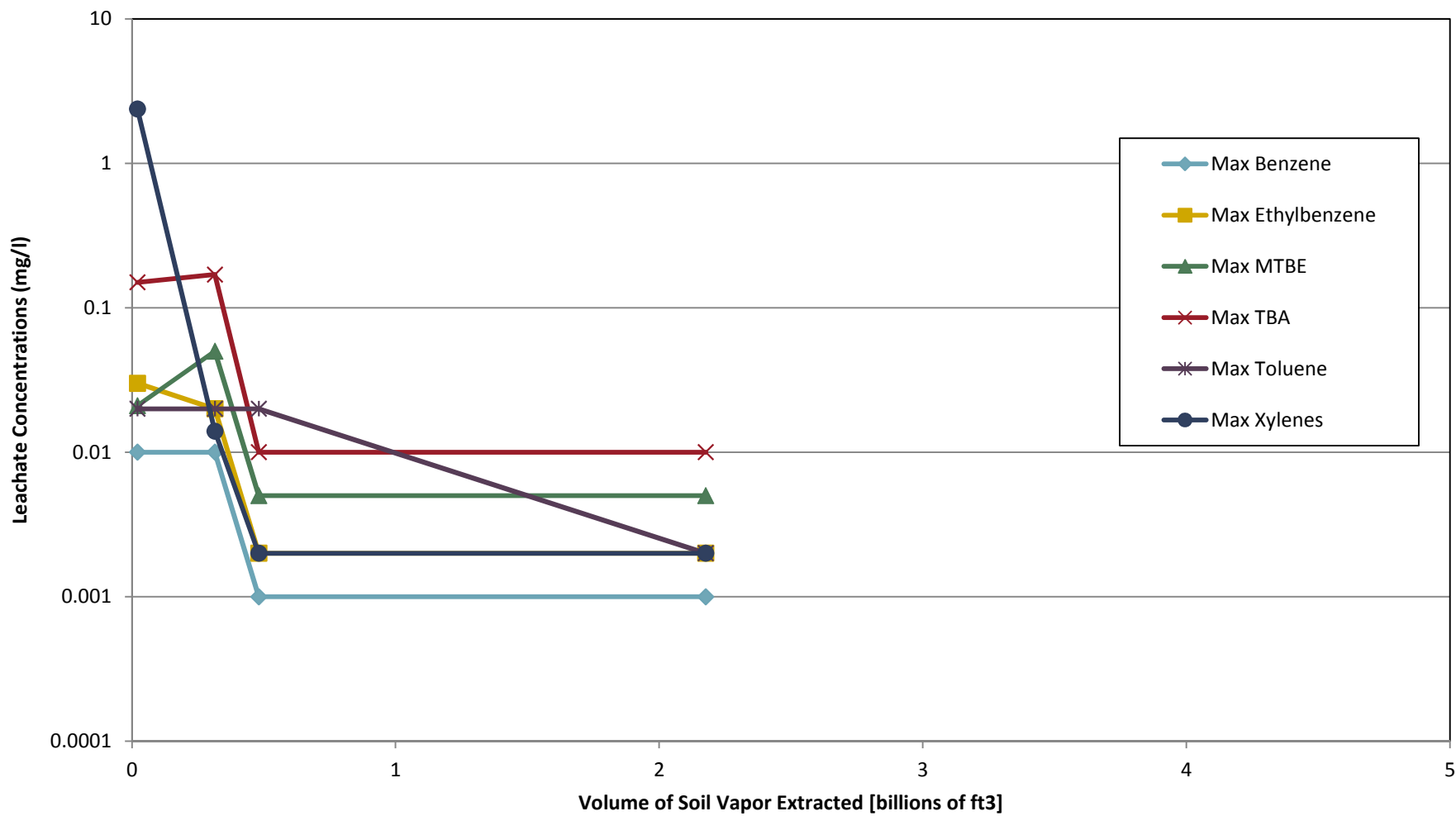
SITE PLAN

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FIGURE
2

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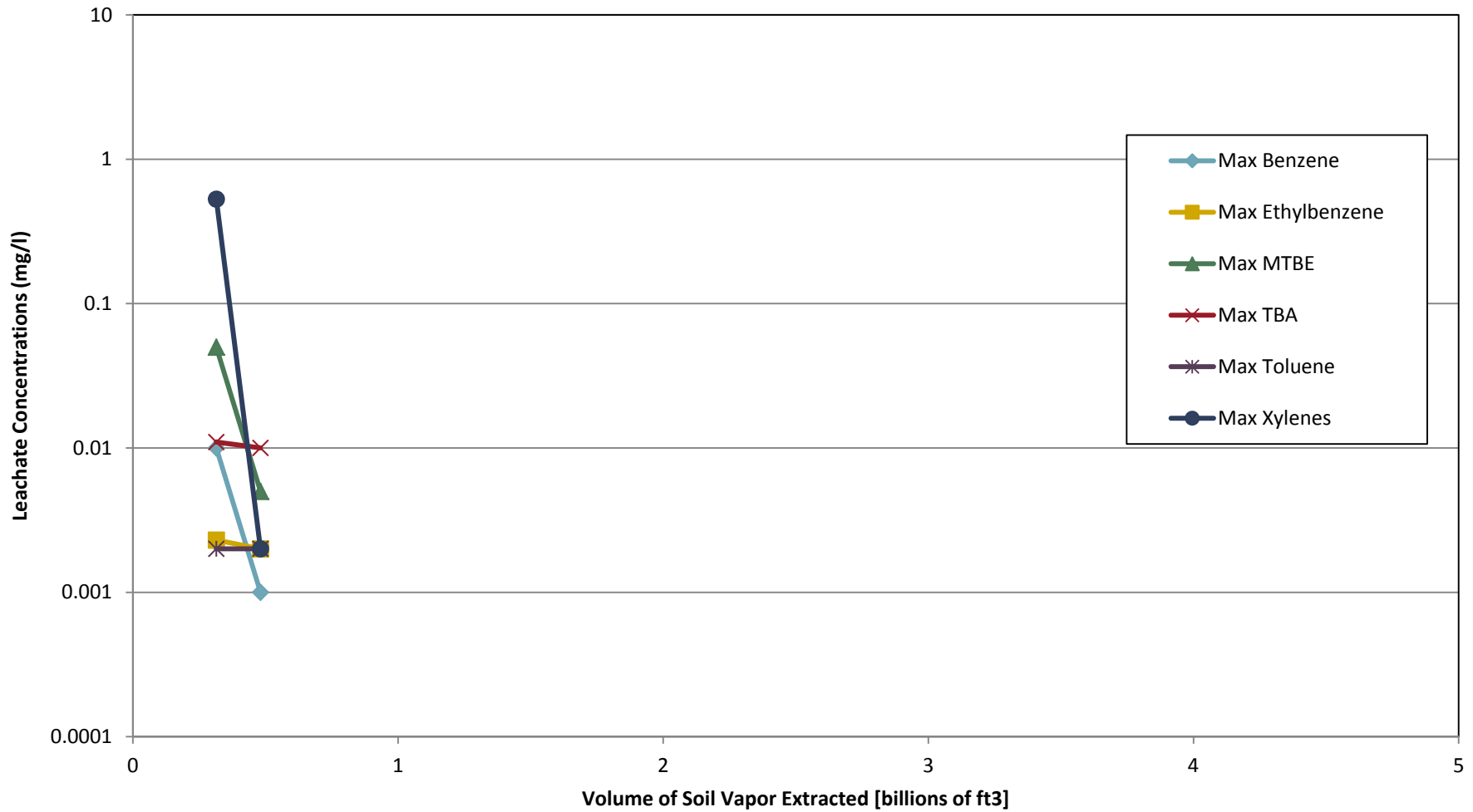
COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-7



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San Diego, California
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Figure 3a

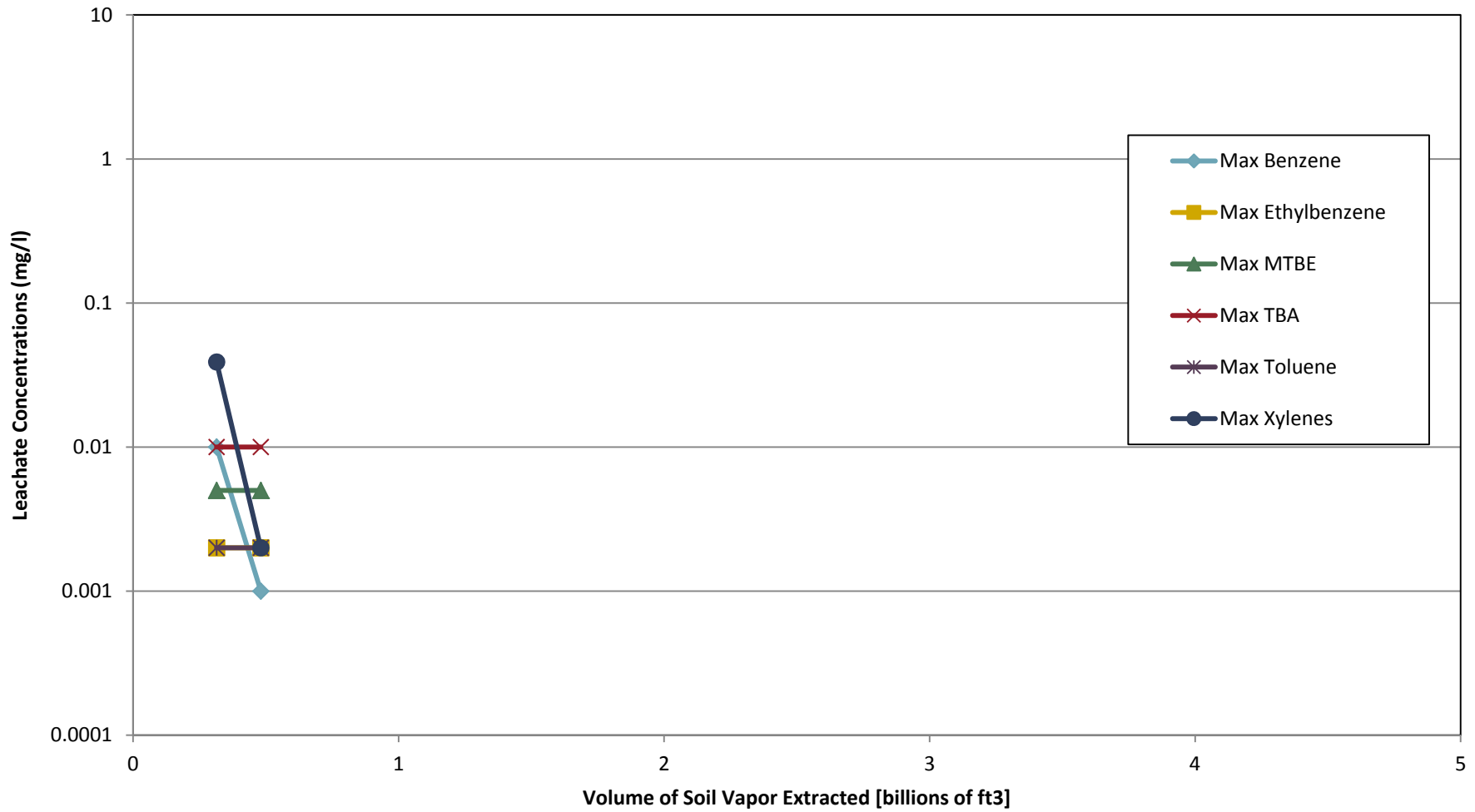
COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-12



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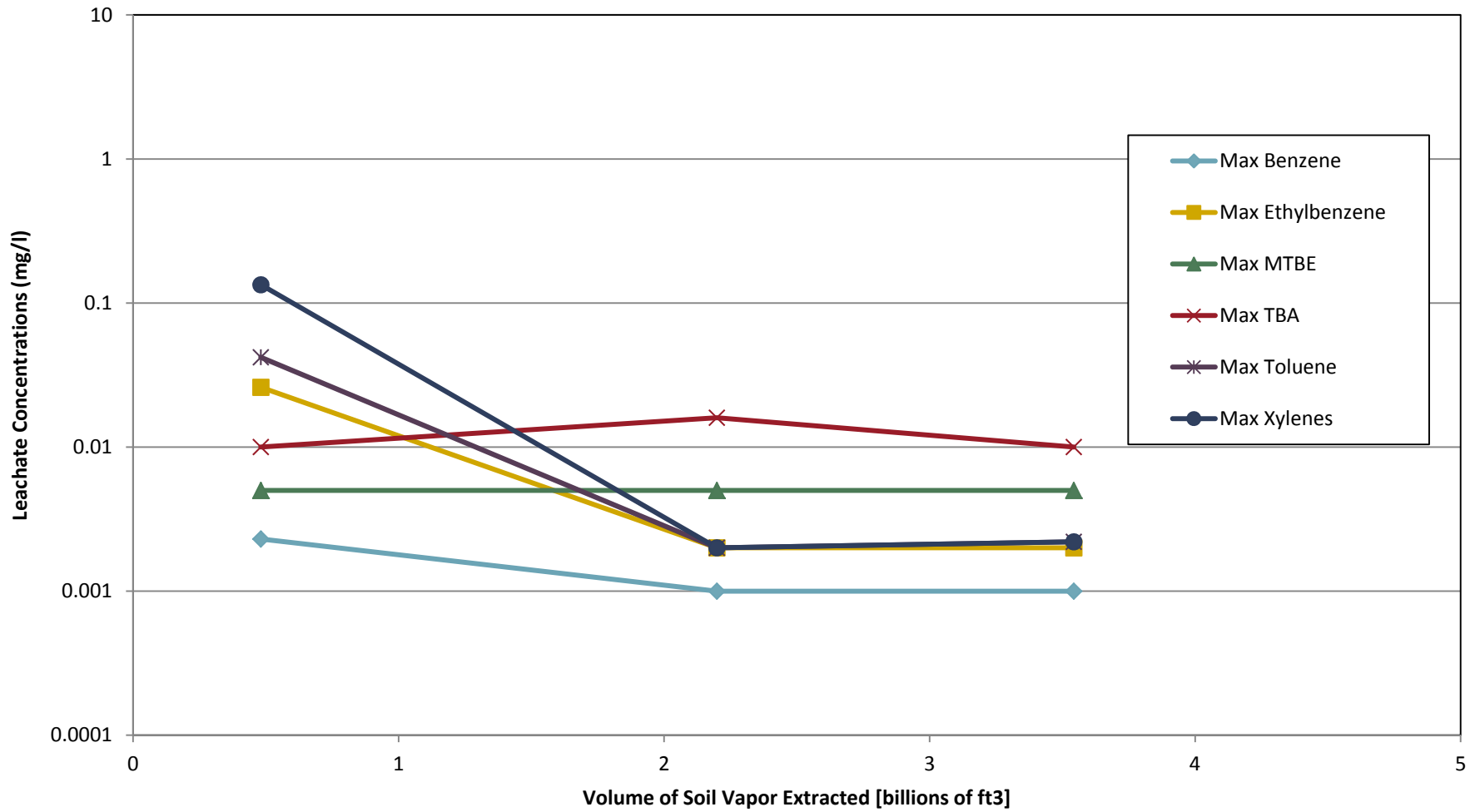
Figure 3b

COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-13



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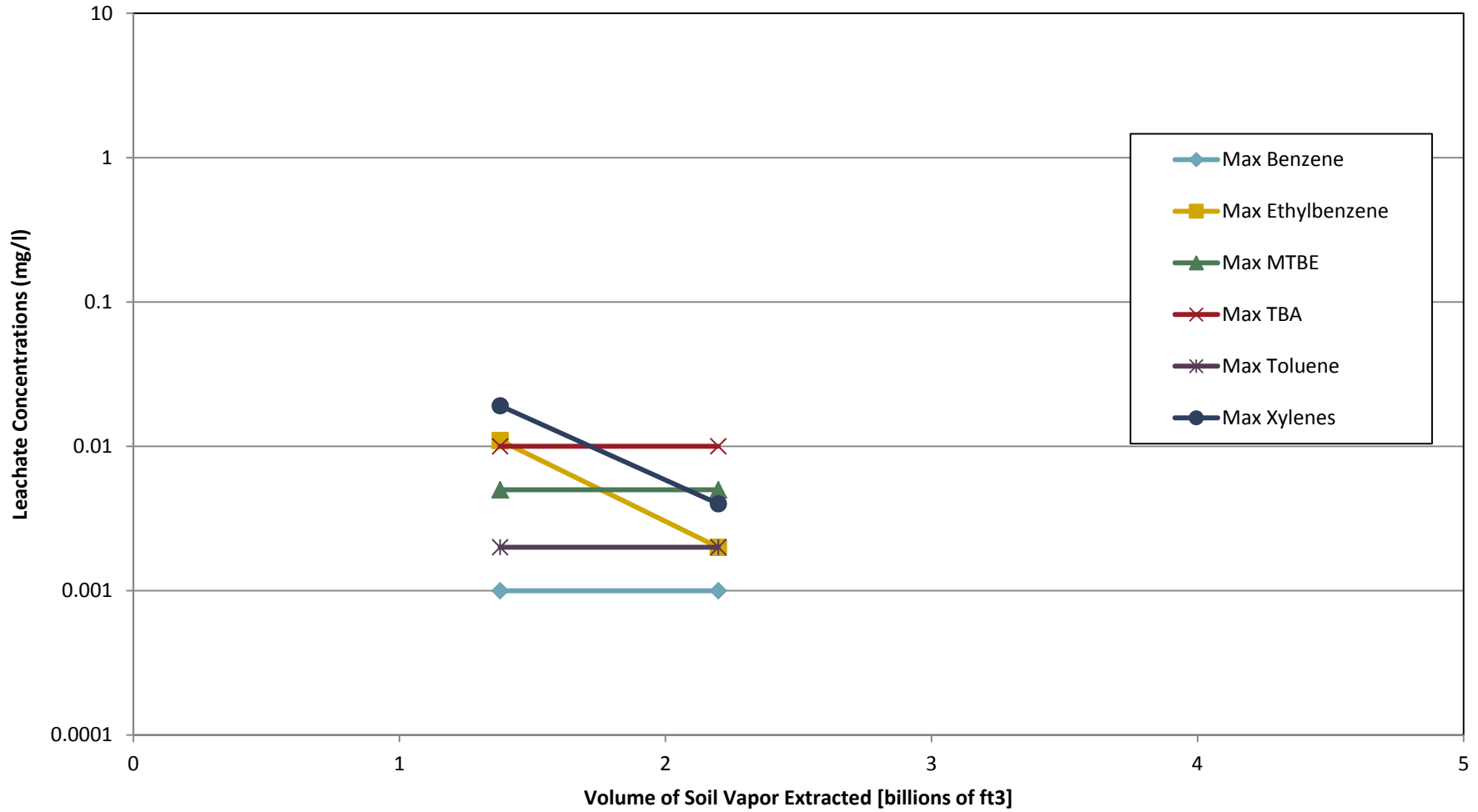
COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-14



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Figure 3d

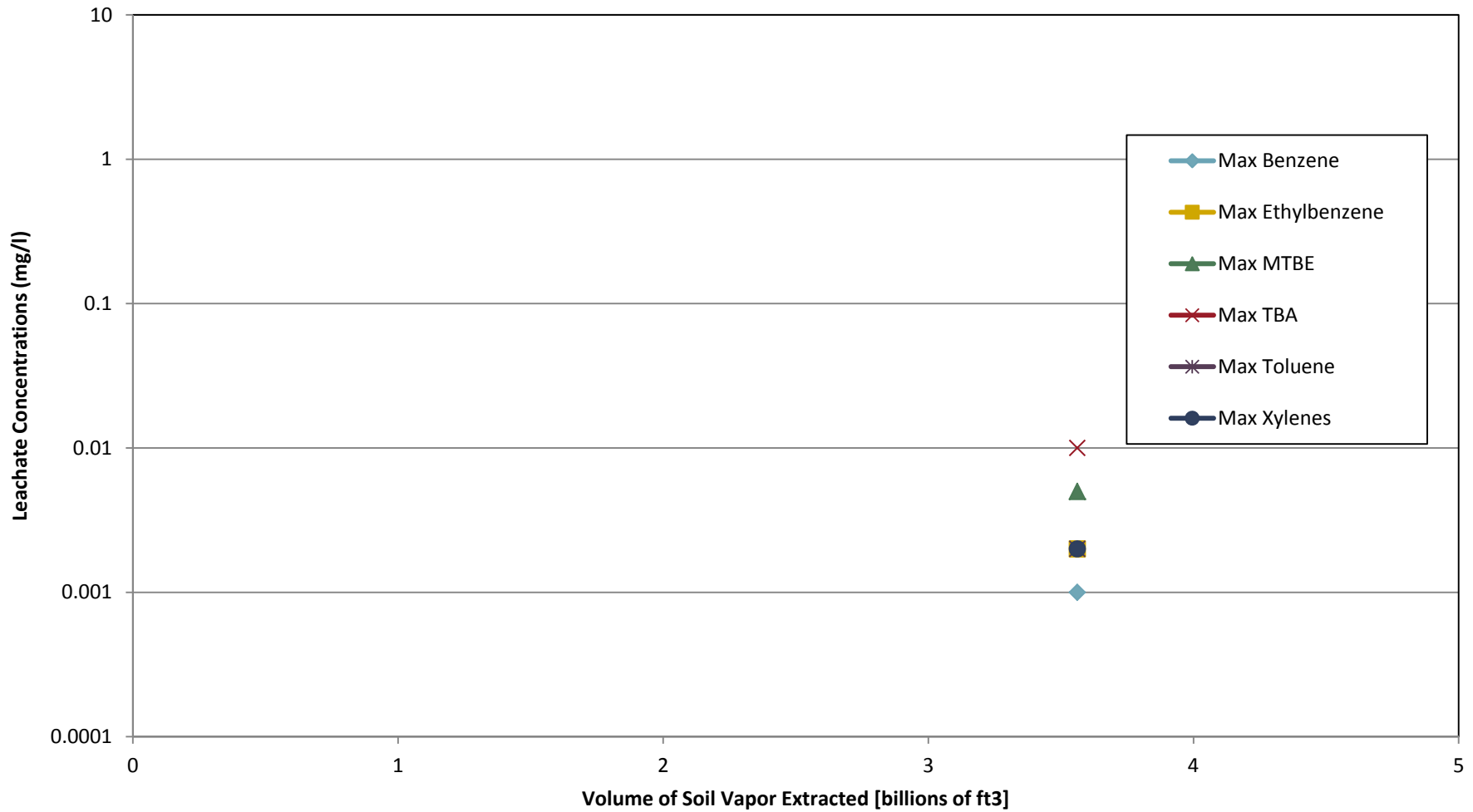
COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-15



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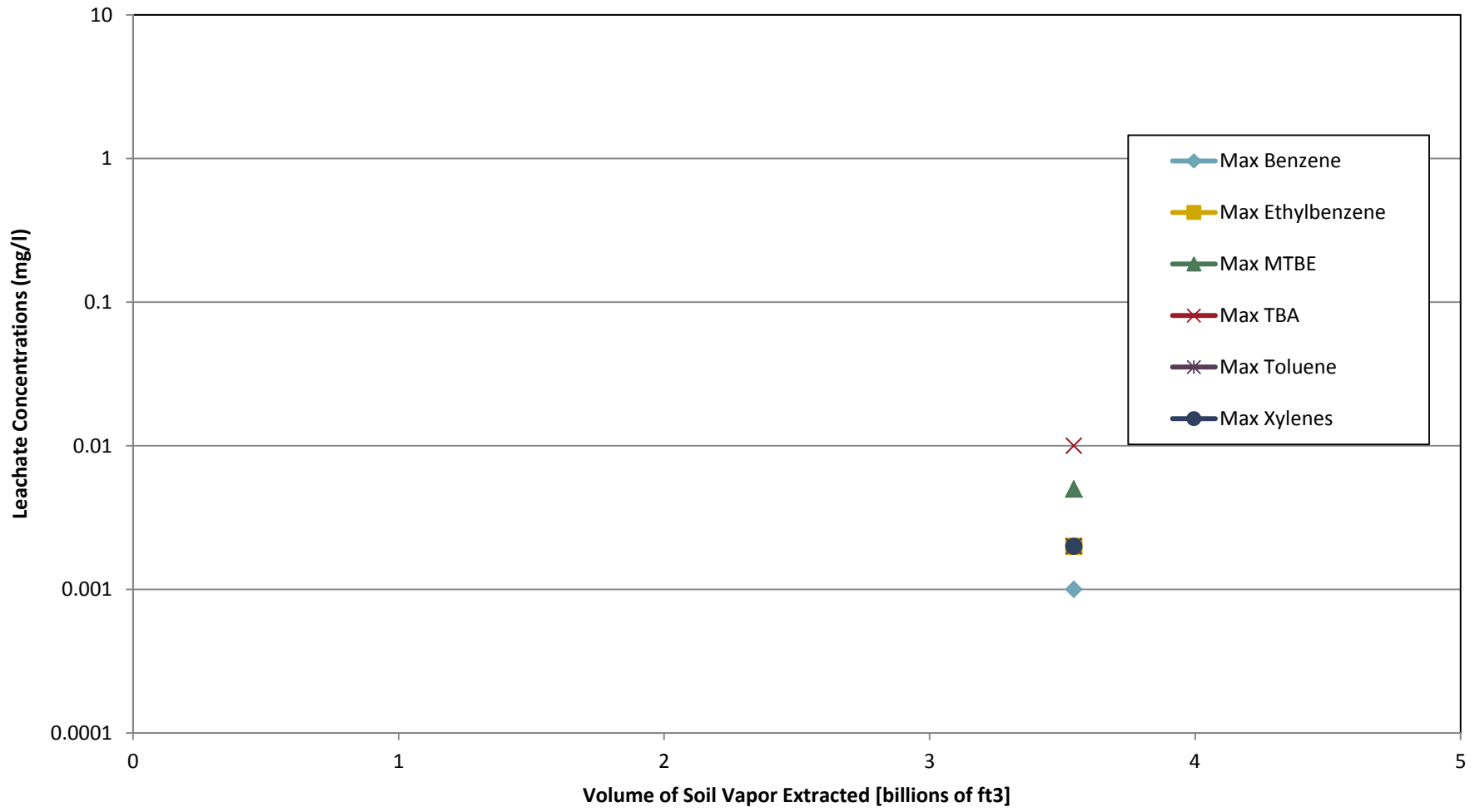
Figure 3e

COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-16



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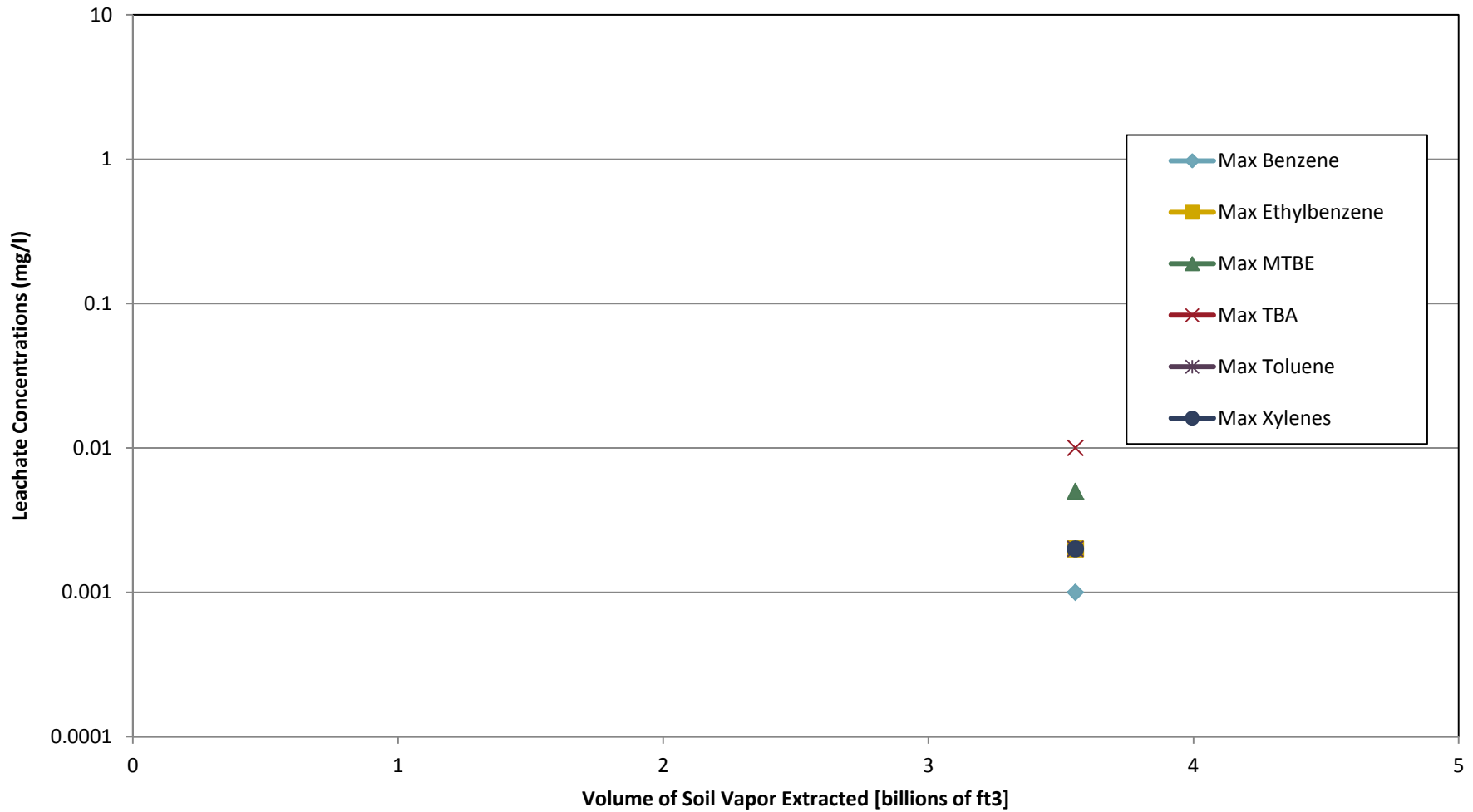
COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-17



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Figure 3g

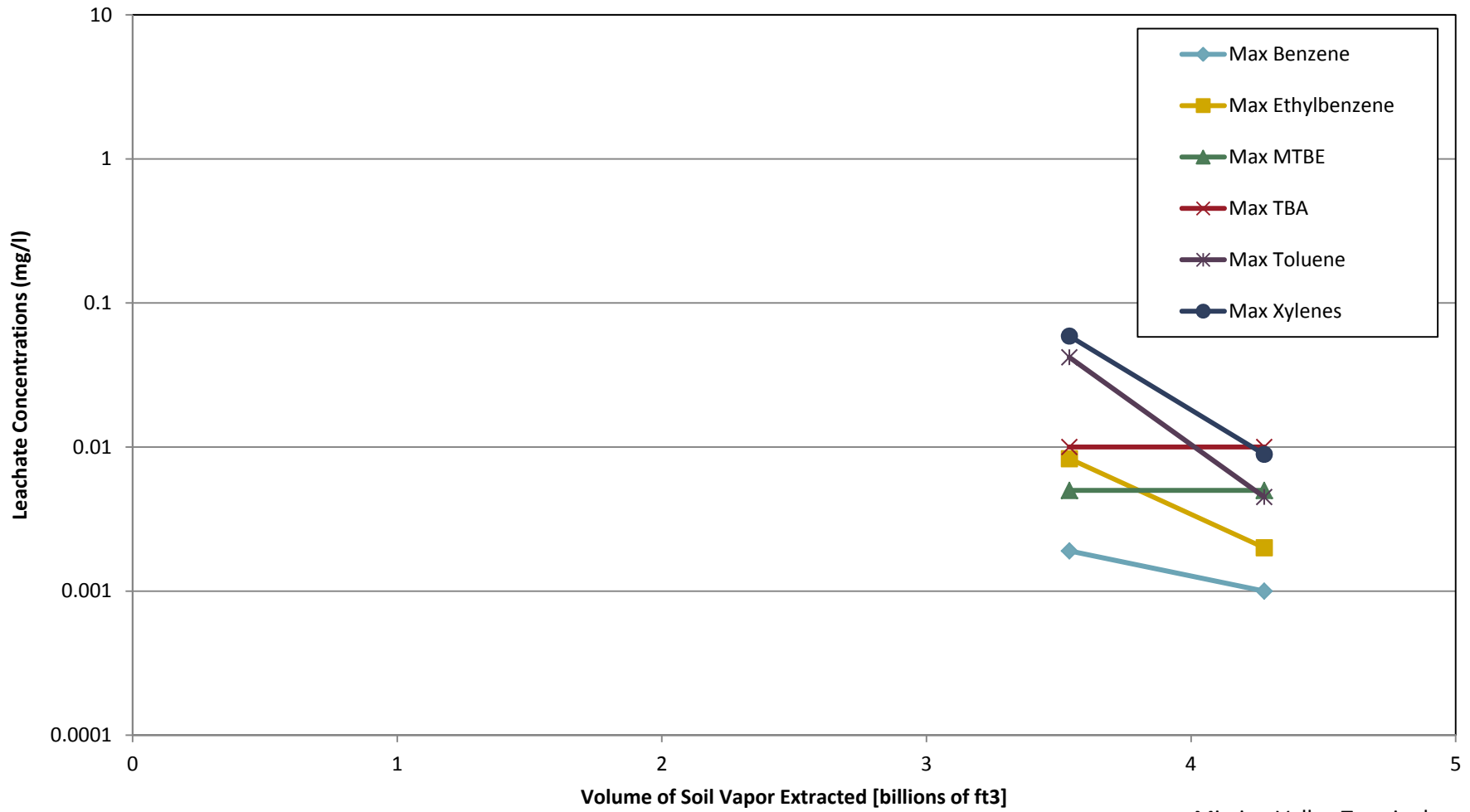
COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-18



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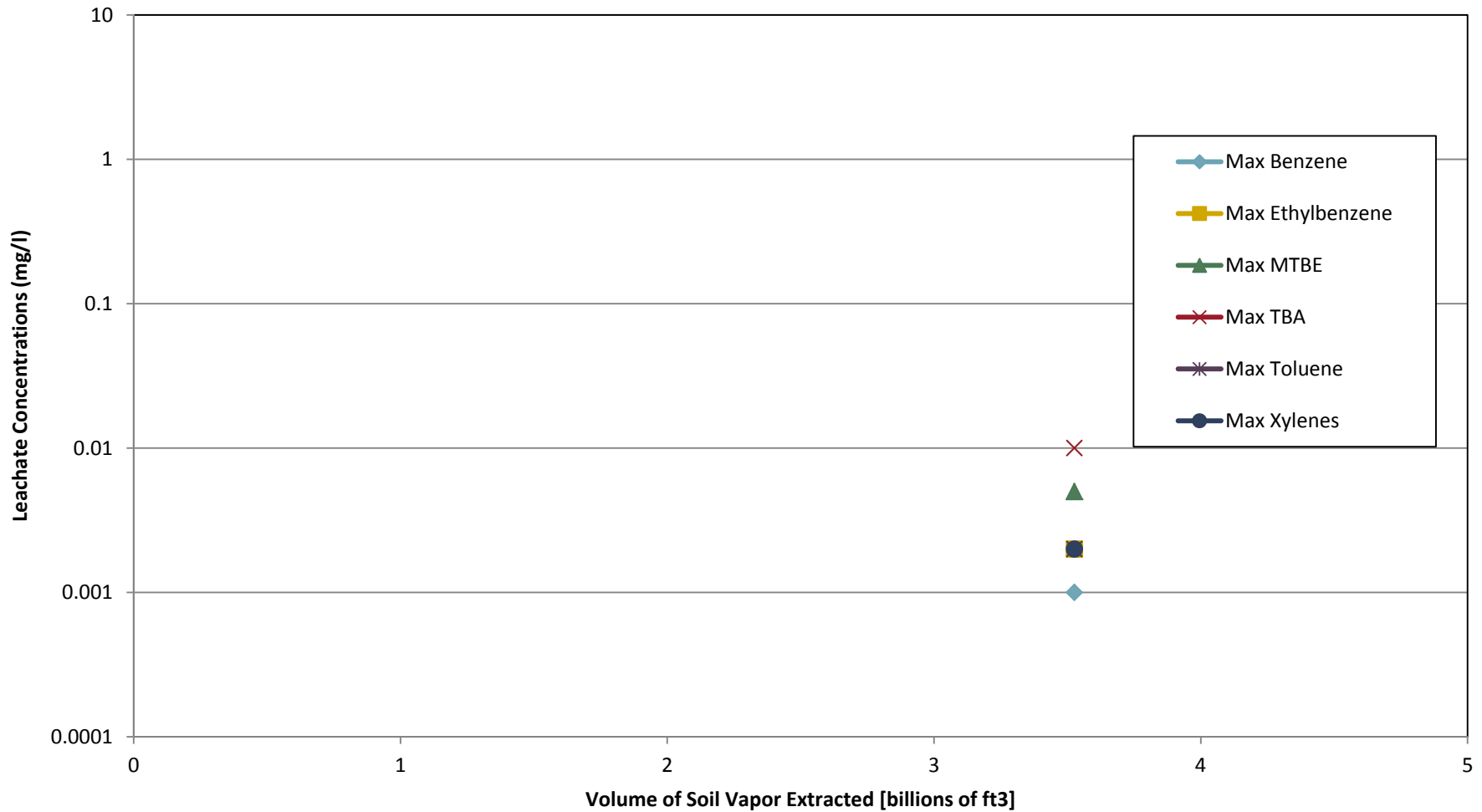
Figure 3h

COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-19



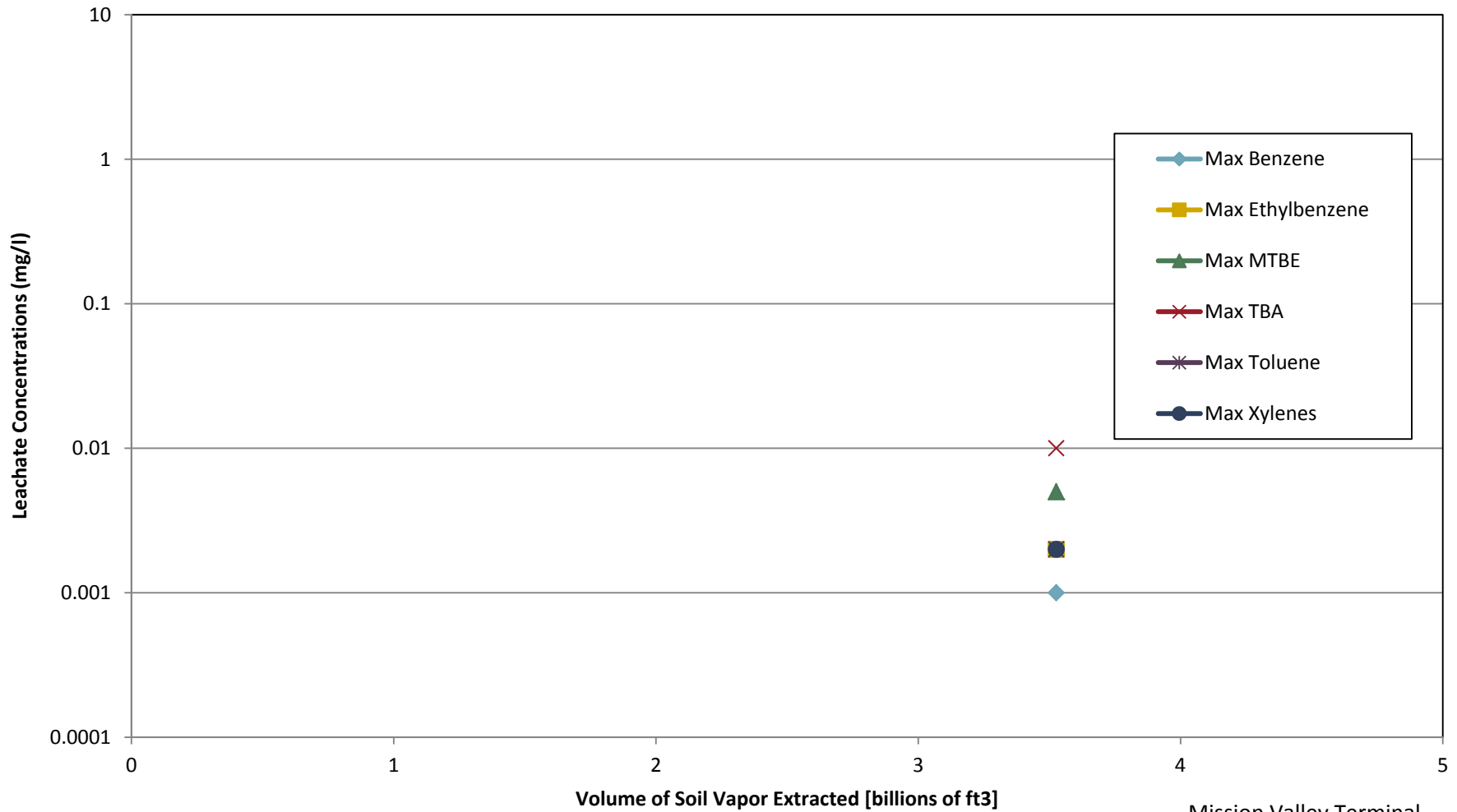
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COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-20



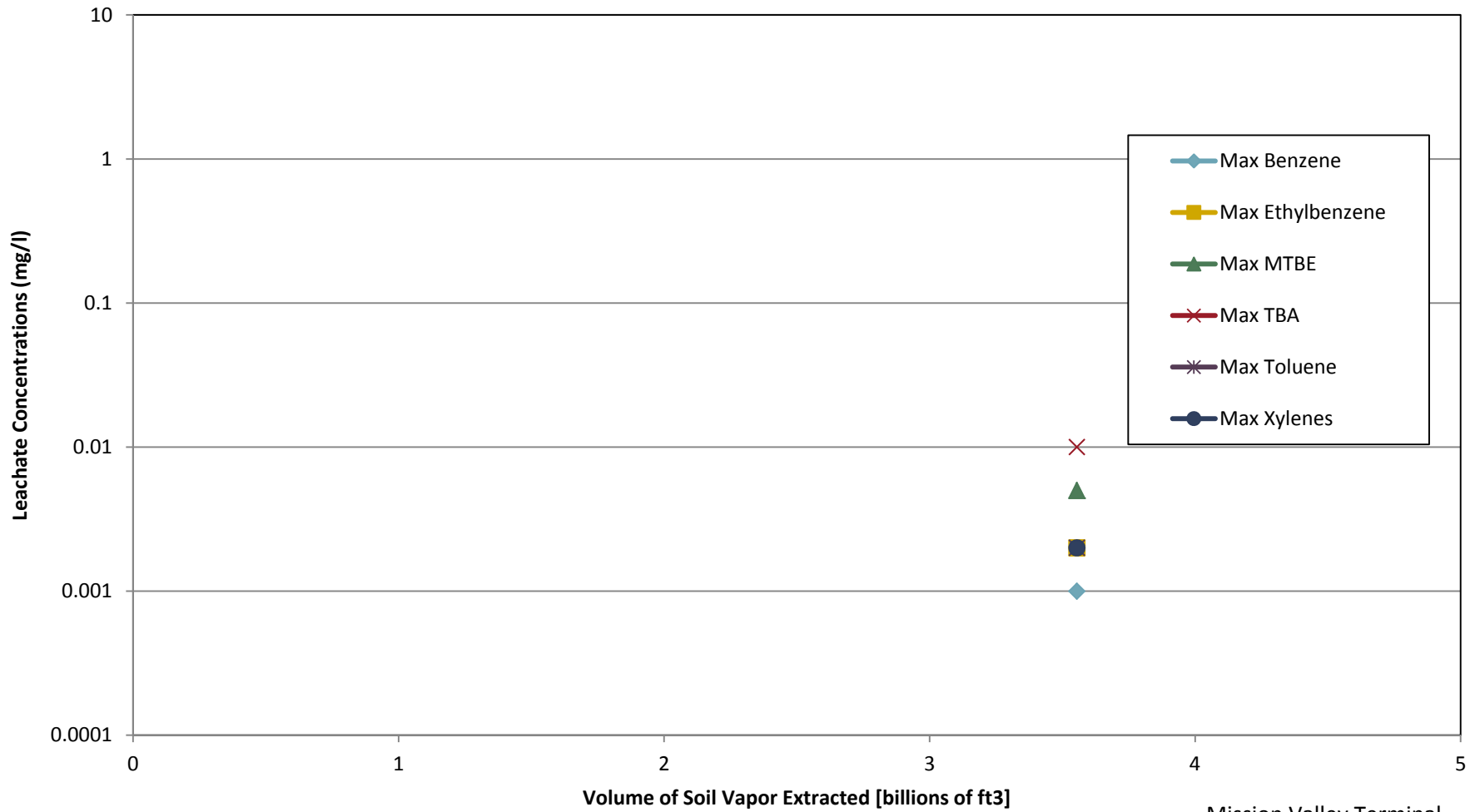
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San Diego, California
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COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-21



Mission Valley Terminal
San Diego, California
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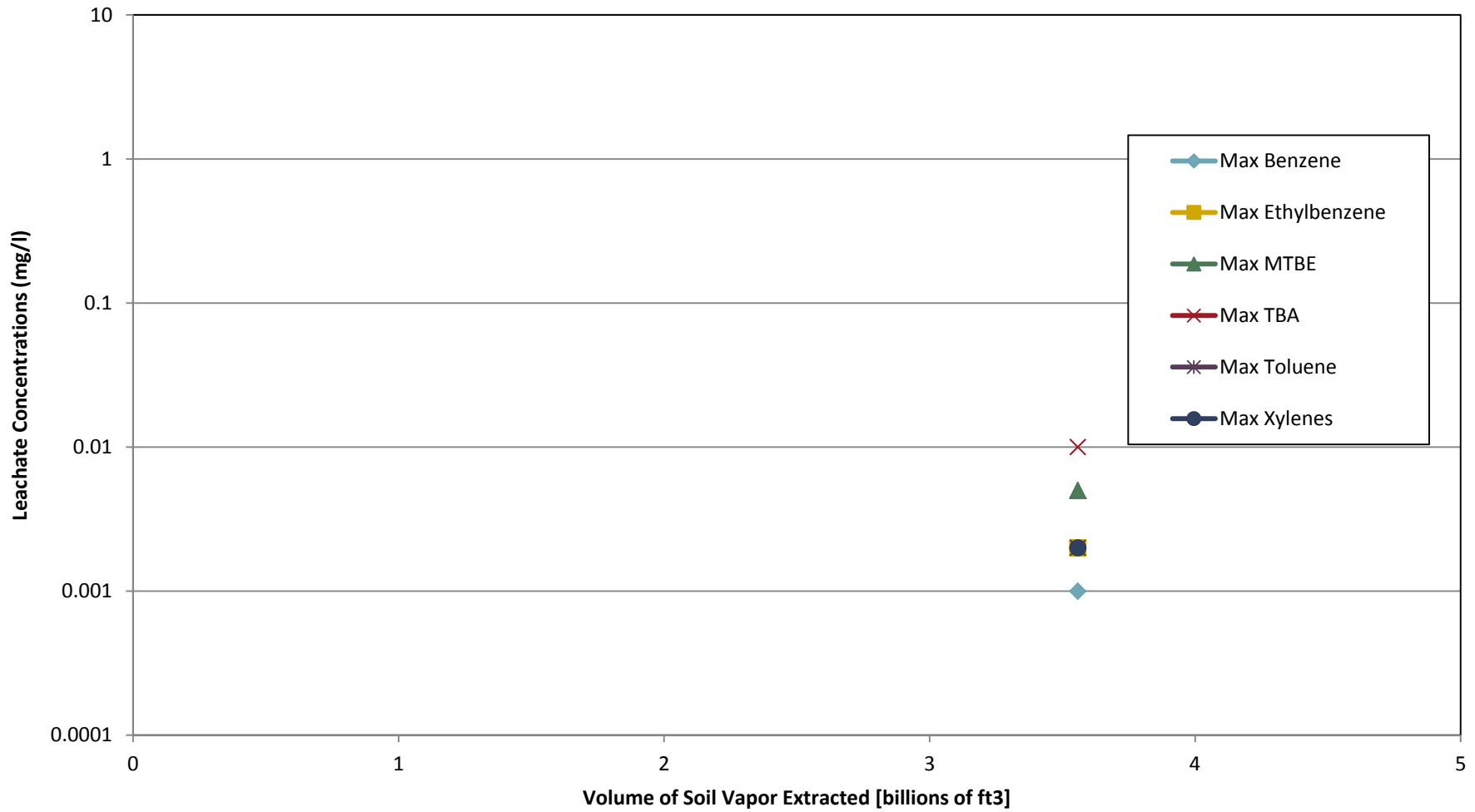
COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-22



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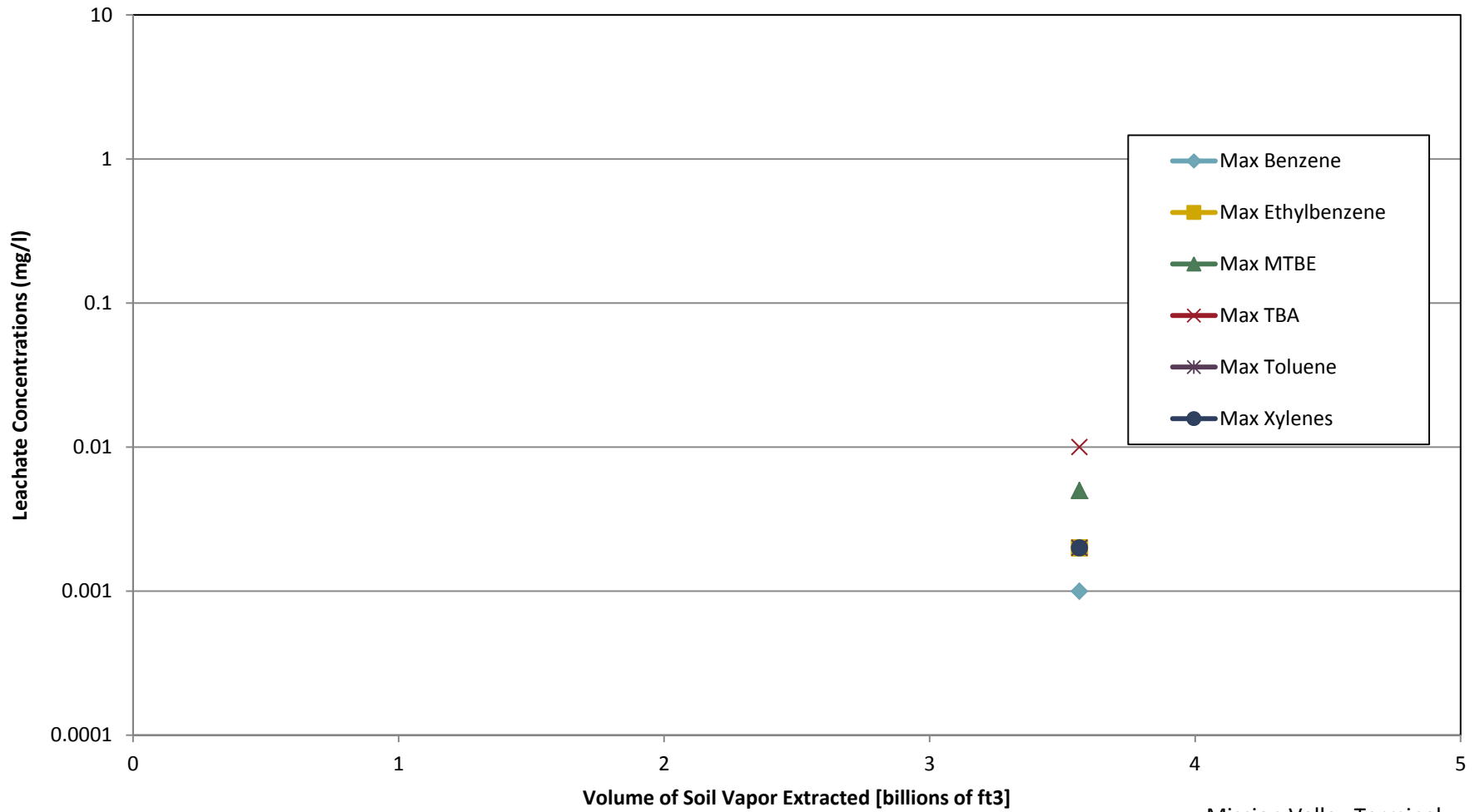
Figure 3I

COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-23



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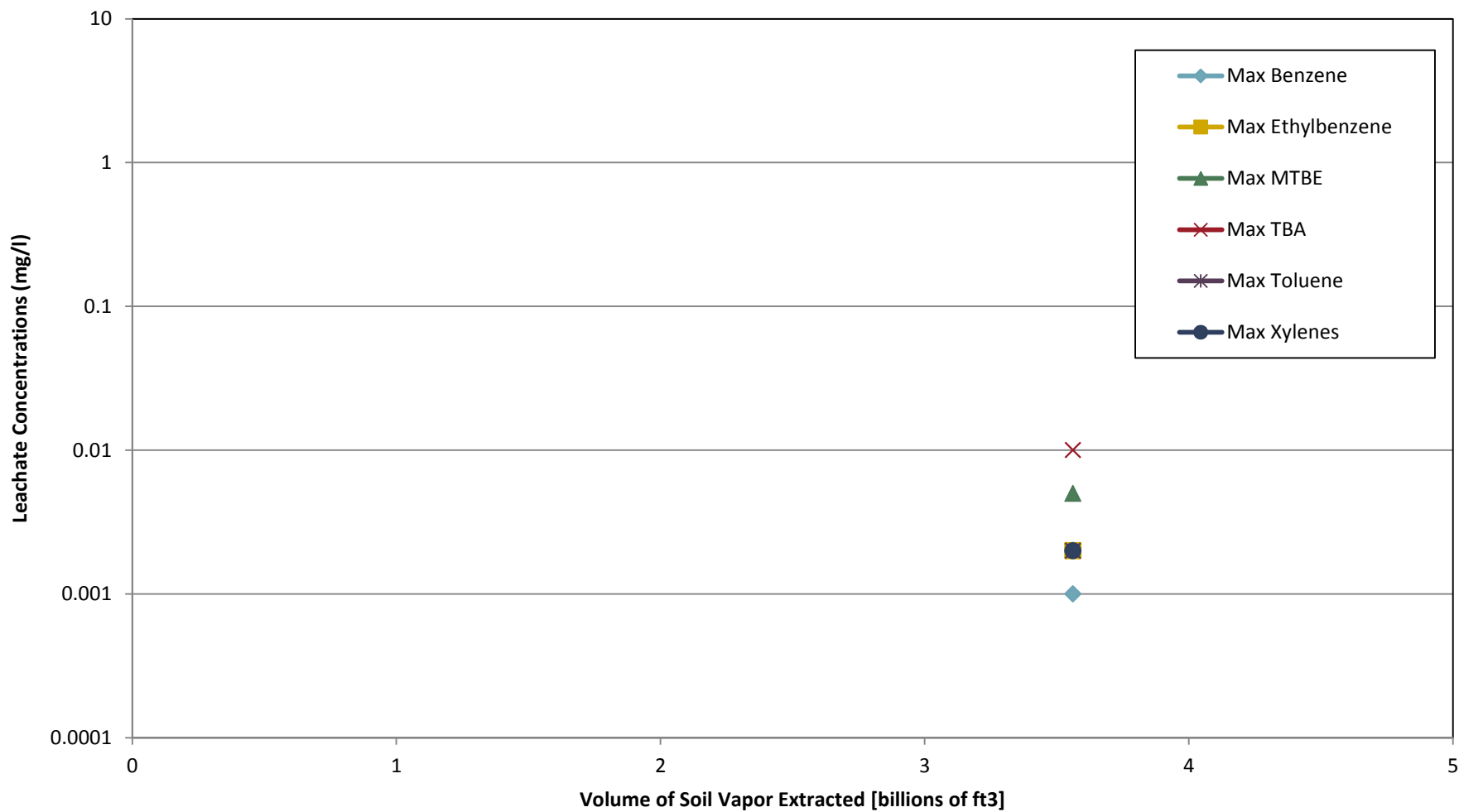
COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-24



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Figure 3n

COCs in Leachate vs. Volume of Soil Vapor Extracted, LNSB-25



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Figure 3o

Figure 4a
TPH-GRO in Soil vs. Depth
LNSB-7, Events 2 to 8

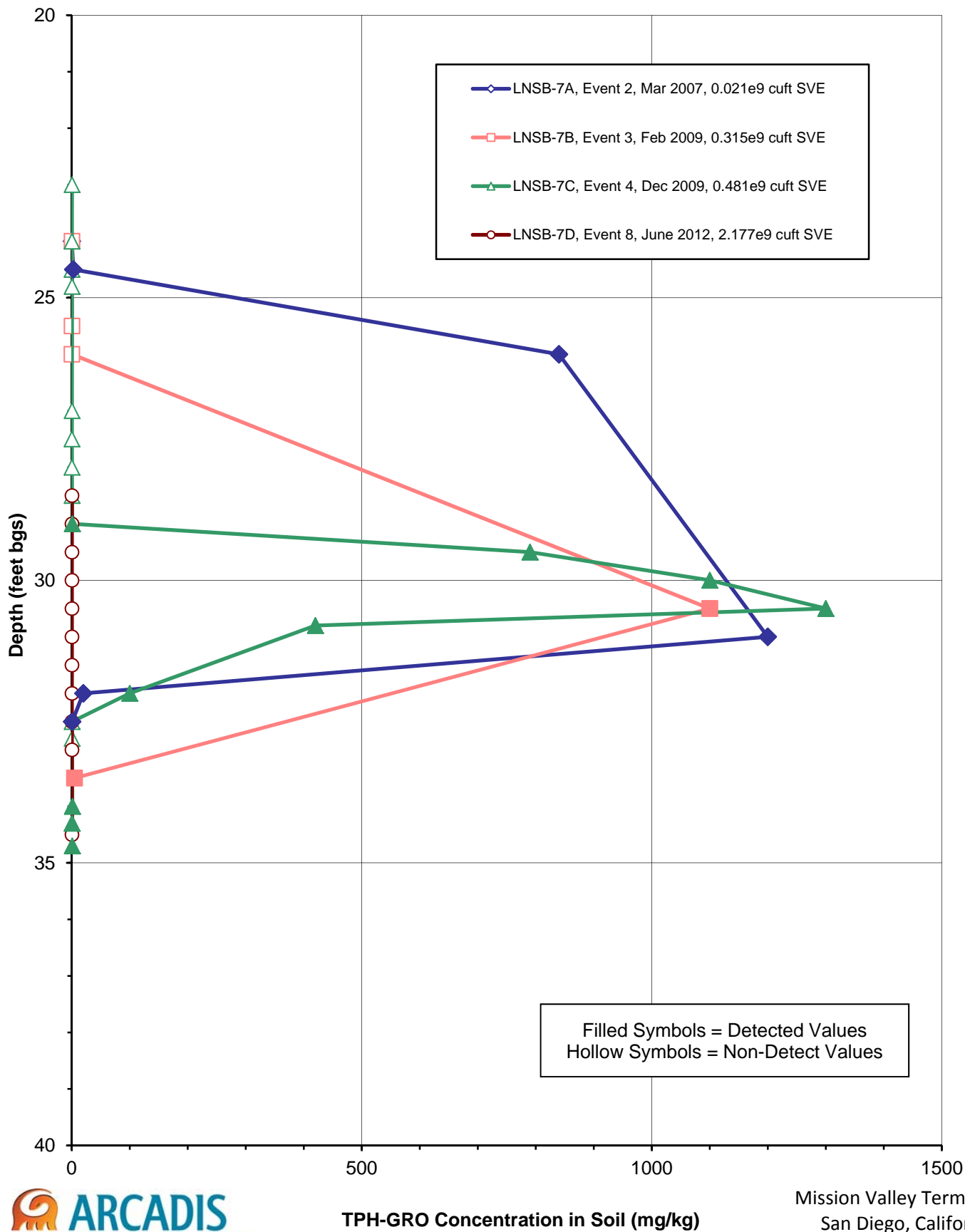


Figure 4b
TPH-GRO in Soil vs. Depth
LNSB-12, Events 3 to 4

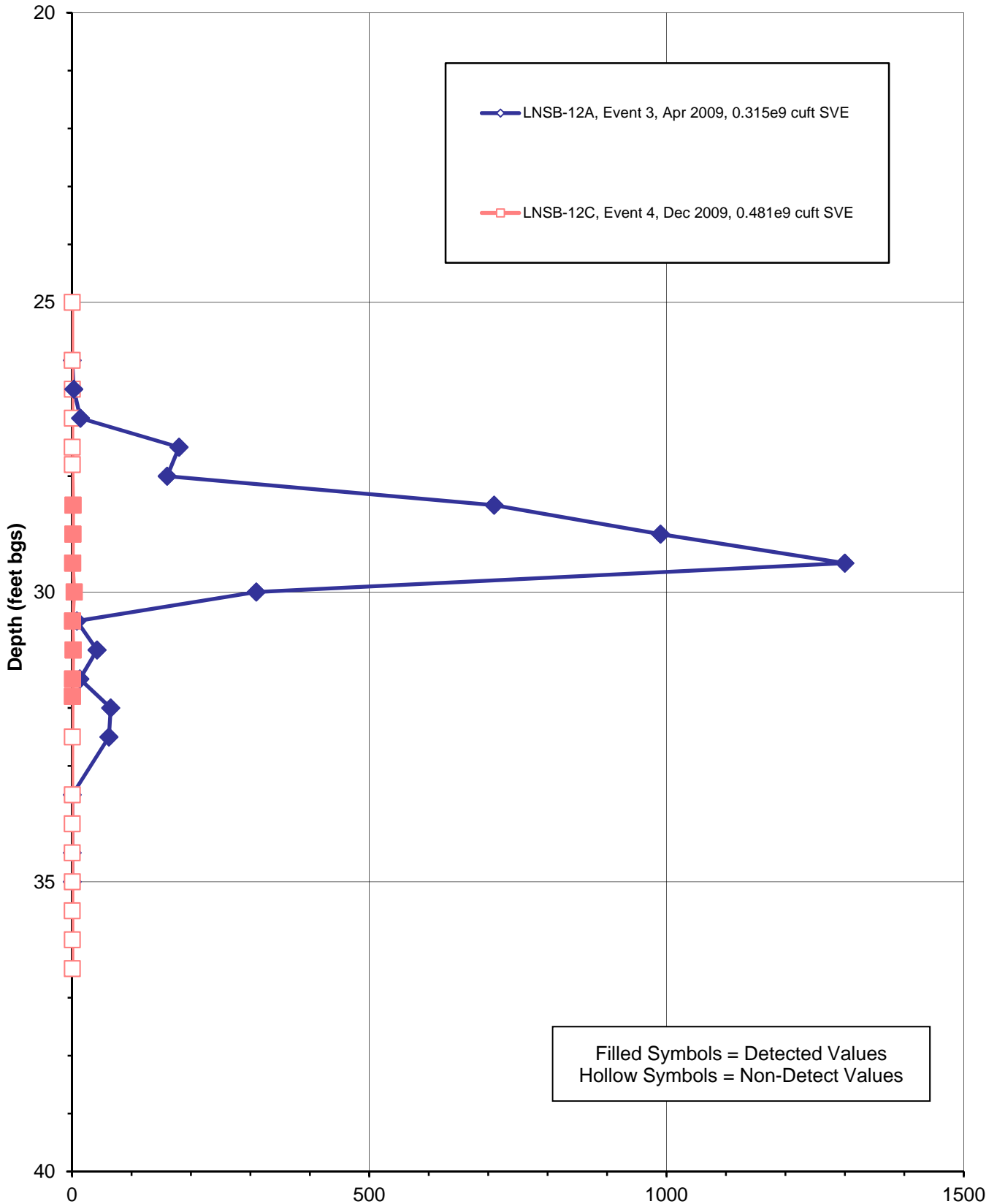
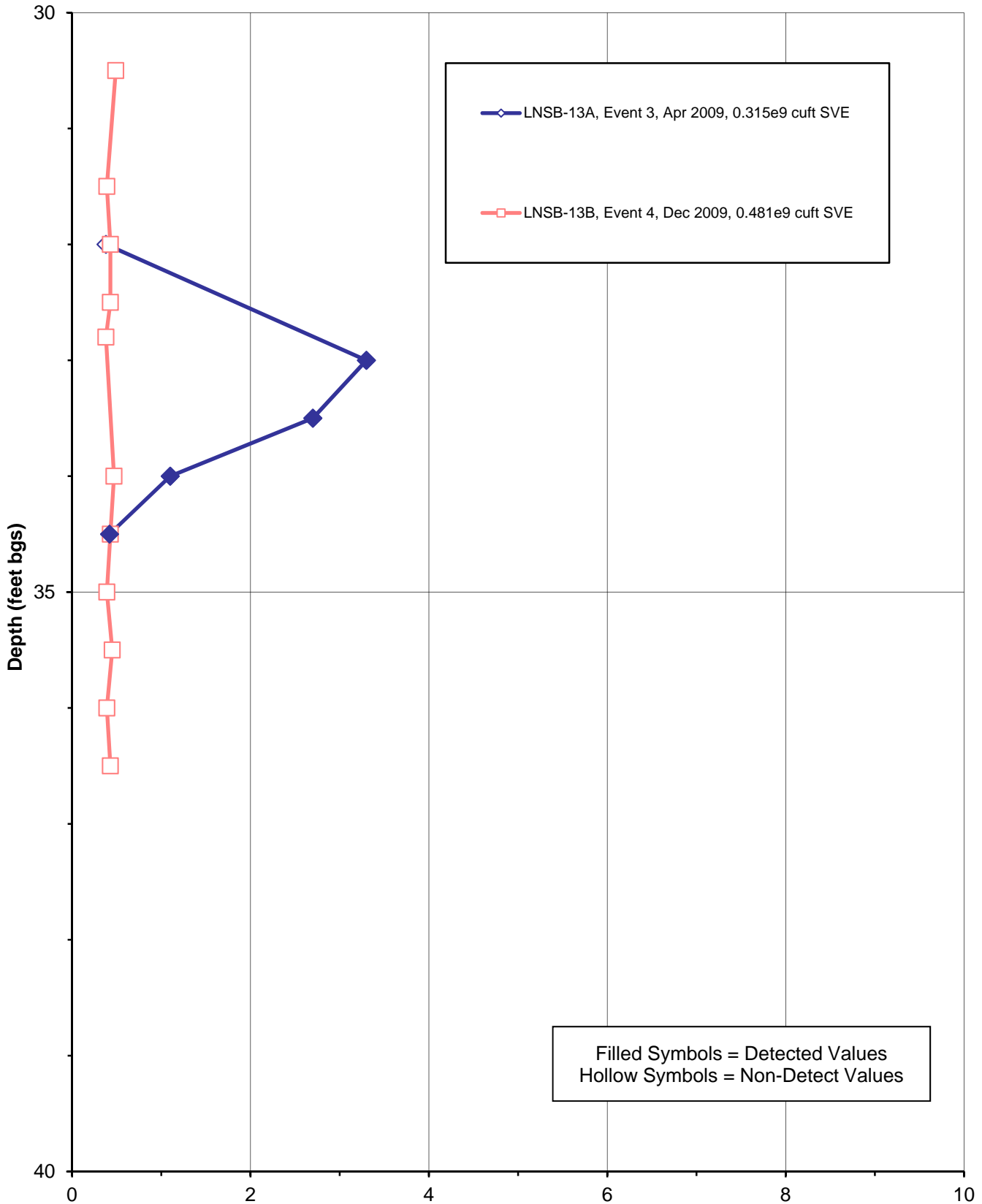


Figure 4c
TPH-GRO in Soil vs. Depth
LNSB-13, Events 3 to 4



Filled Symbols = Detected Values
Hollow Symbols = Non-Detect Values

Figure 4d
TPH-GRO in Soil vs. Depth
LNSB-14, Events 4 to 9

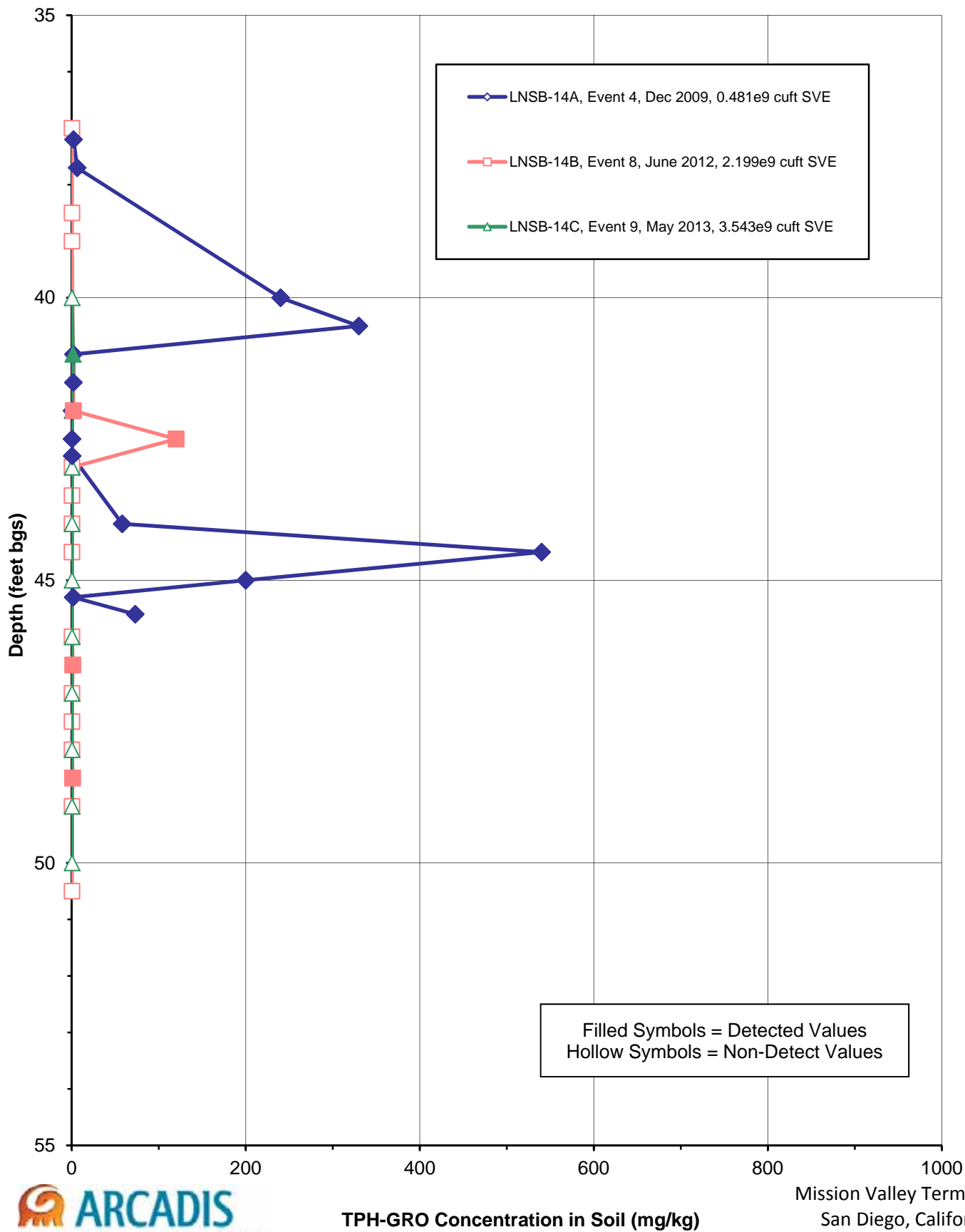


Figure 4e
TPH-GRO in Soil vs. Depth
LNSB-15, Events 7 to 8

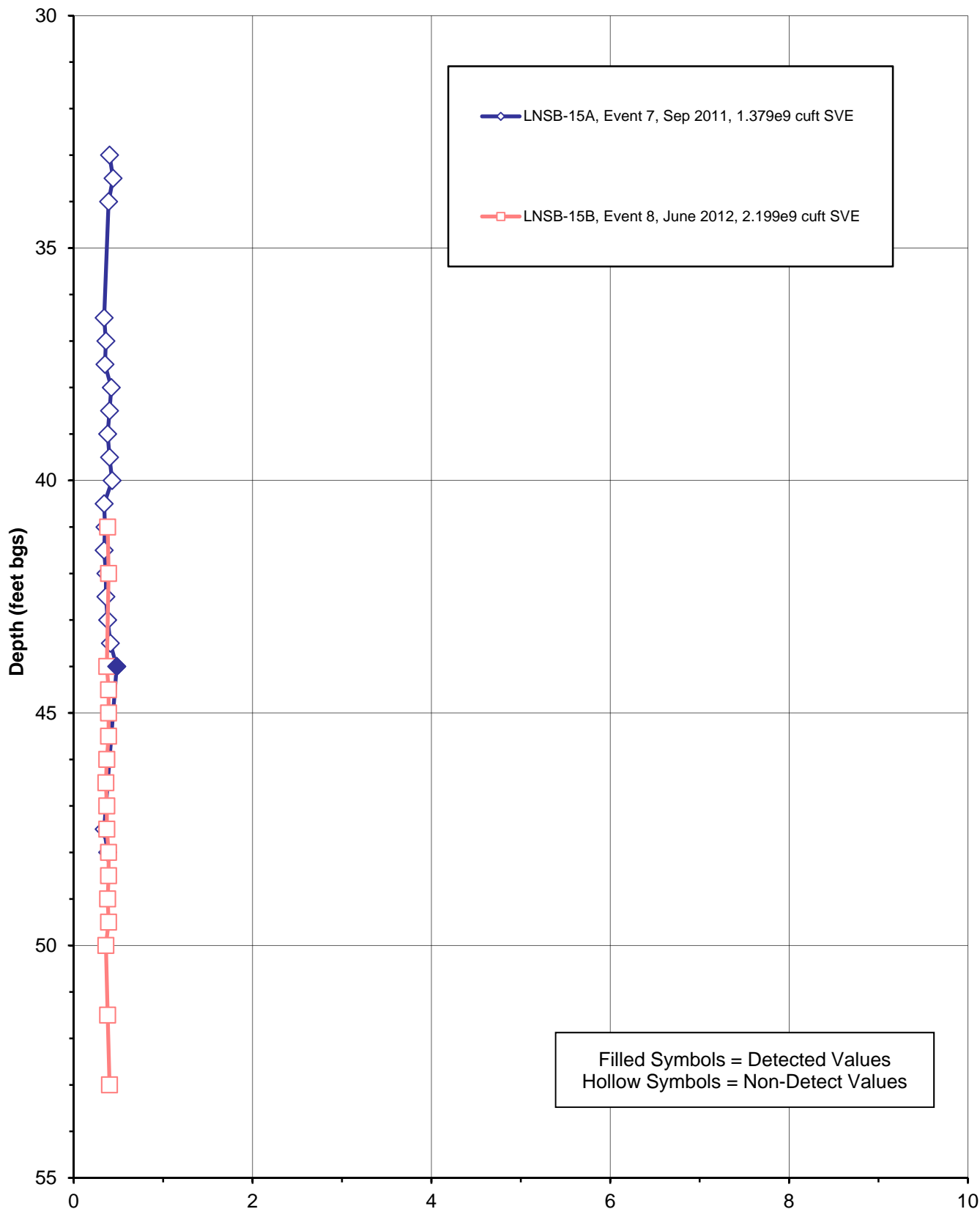
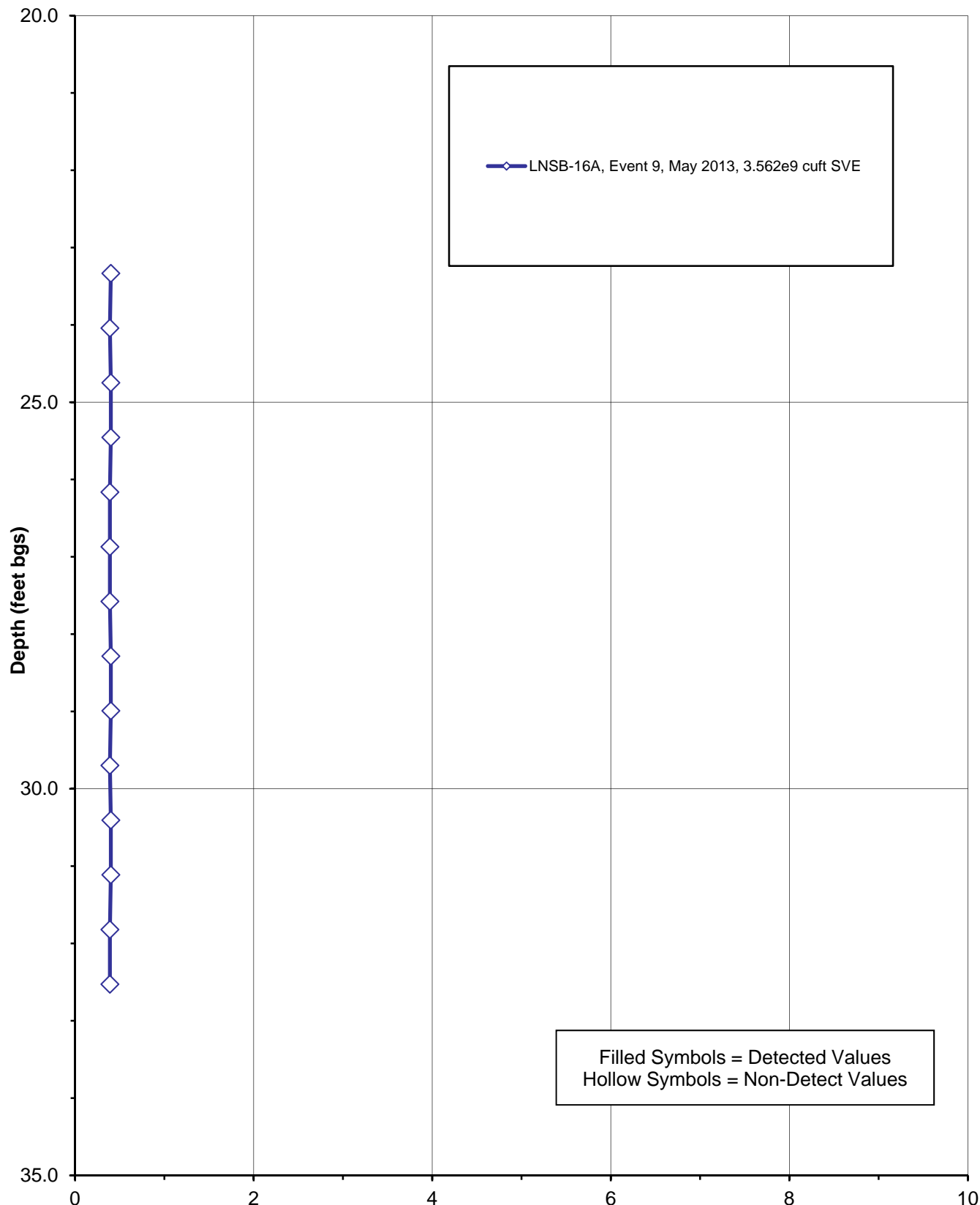
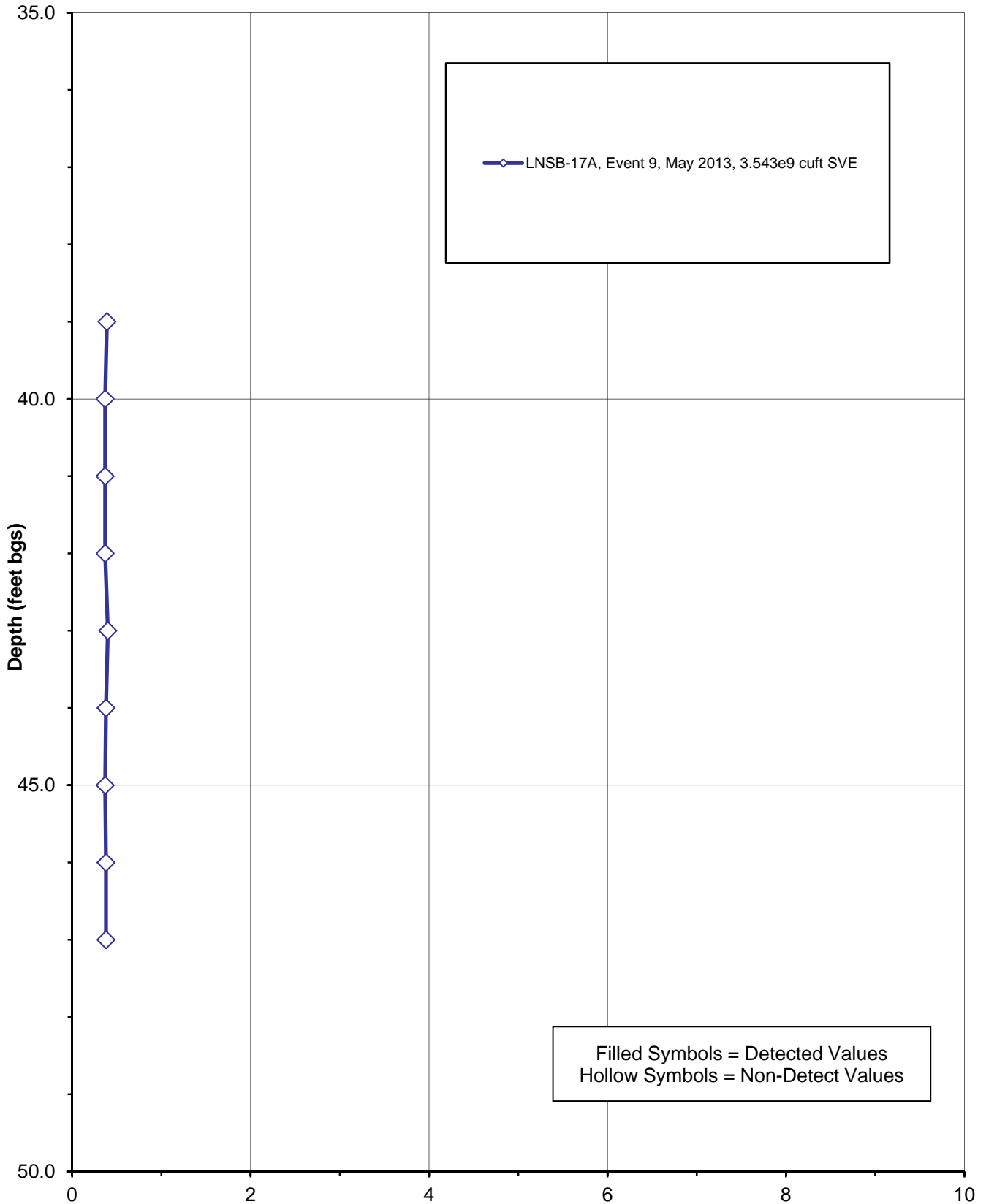


Figure 4f
TPH-GRO in Soil vs. Depth
LNSB-16, Event 9



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Figure 4g
TPH-GRO in Soil vs. Depth
LNSB-17, Event 9



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Figure 4h
TPH-GRO in Soil vs. Depth
LNSB-18, Event 9

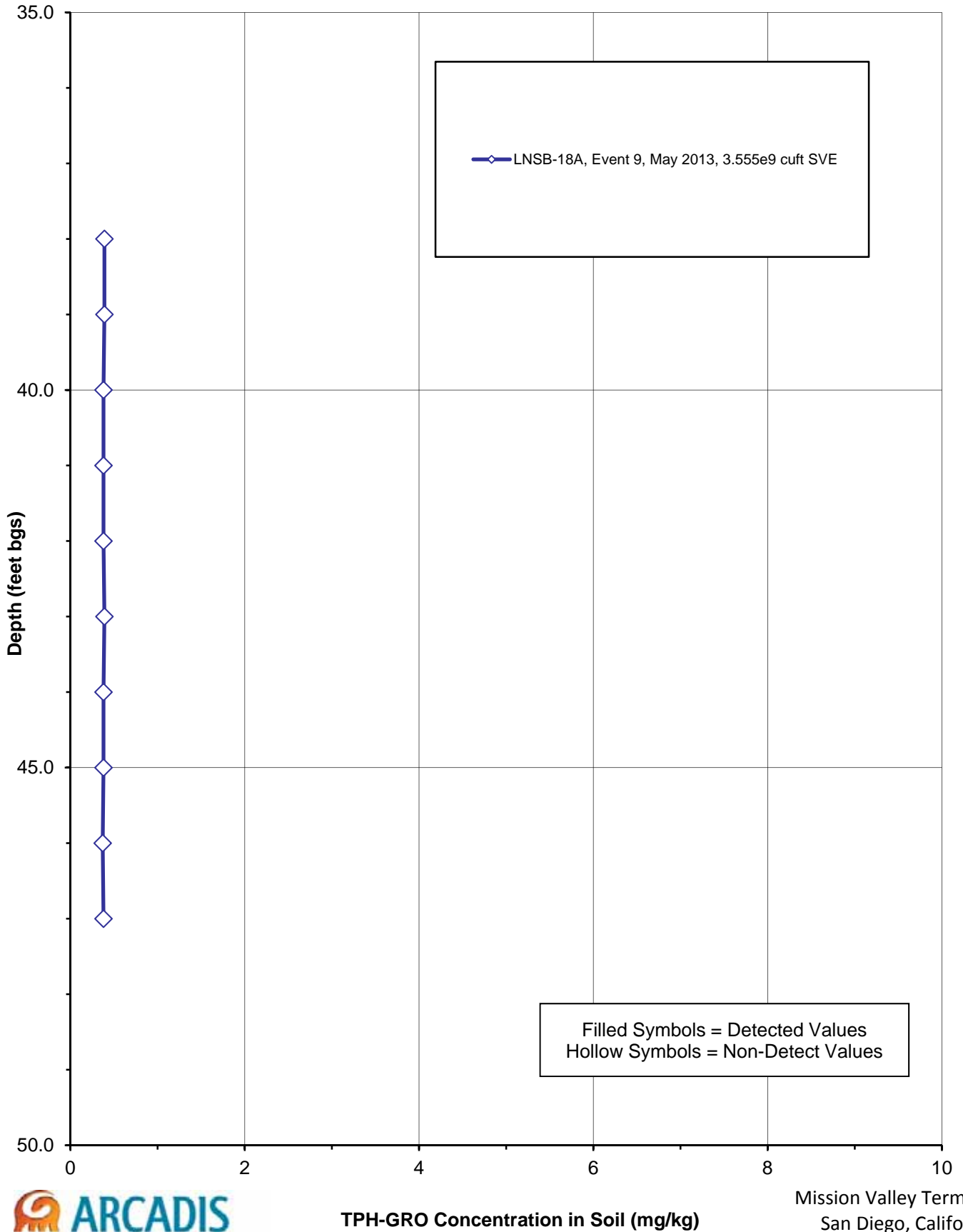


Figure 4i
TPH-GRO in Soil vs. Depth
LNSB-19, Events 9 to 10

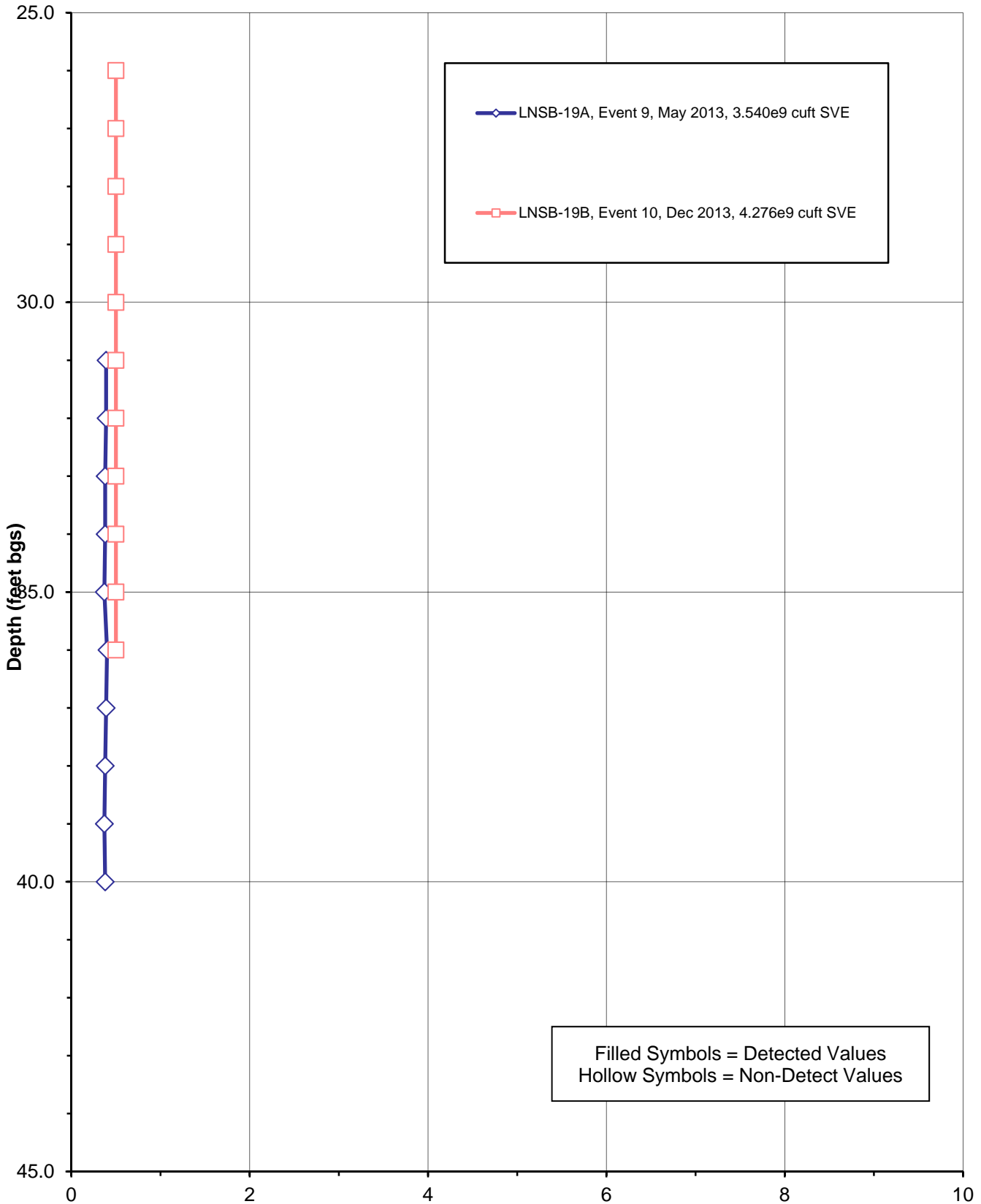
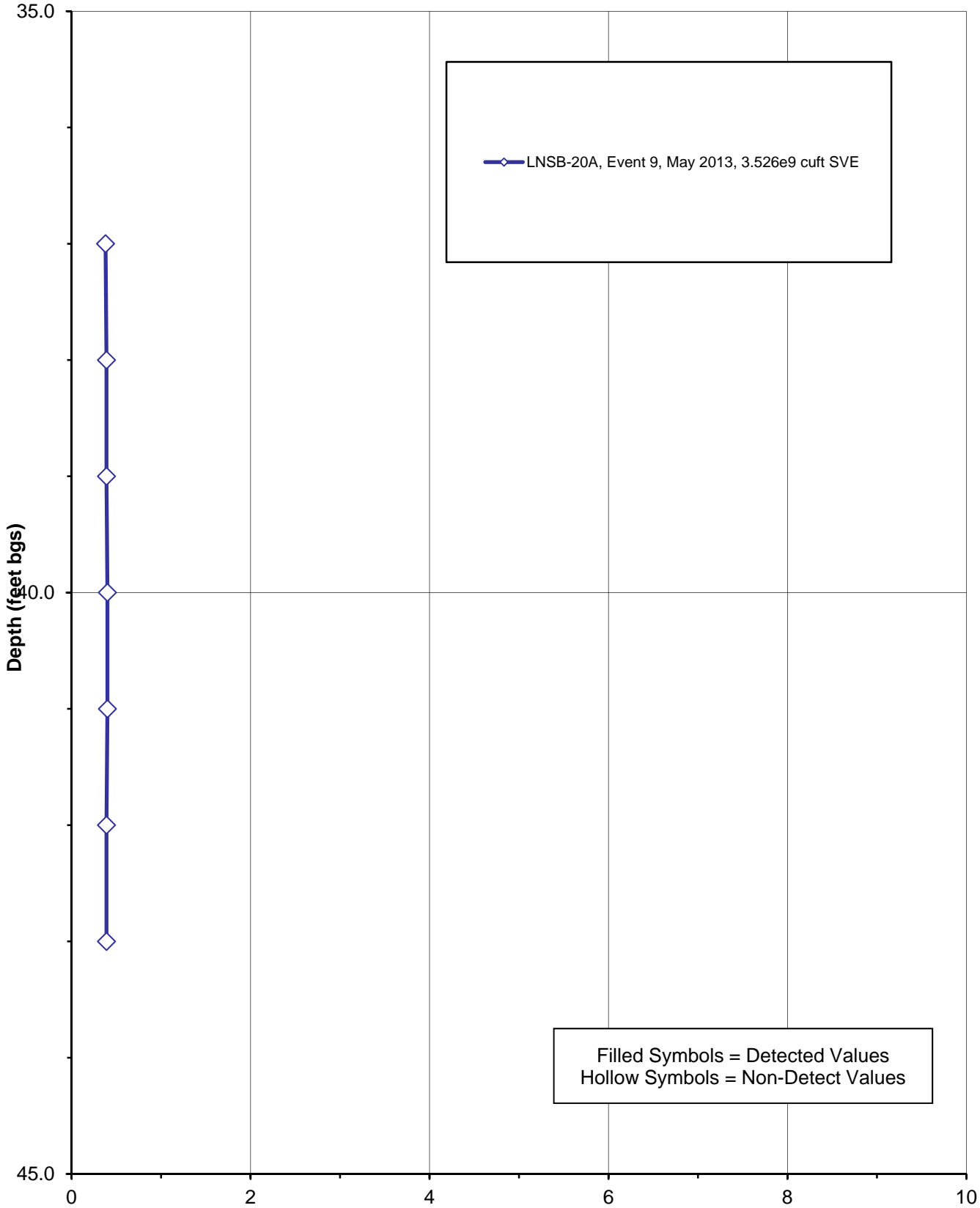
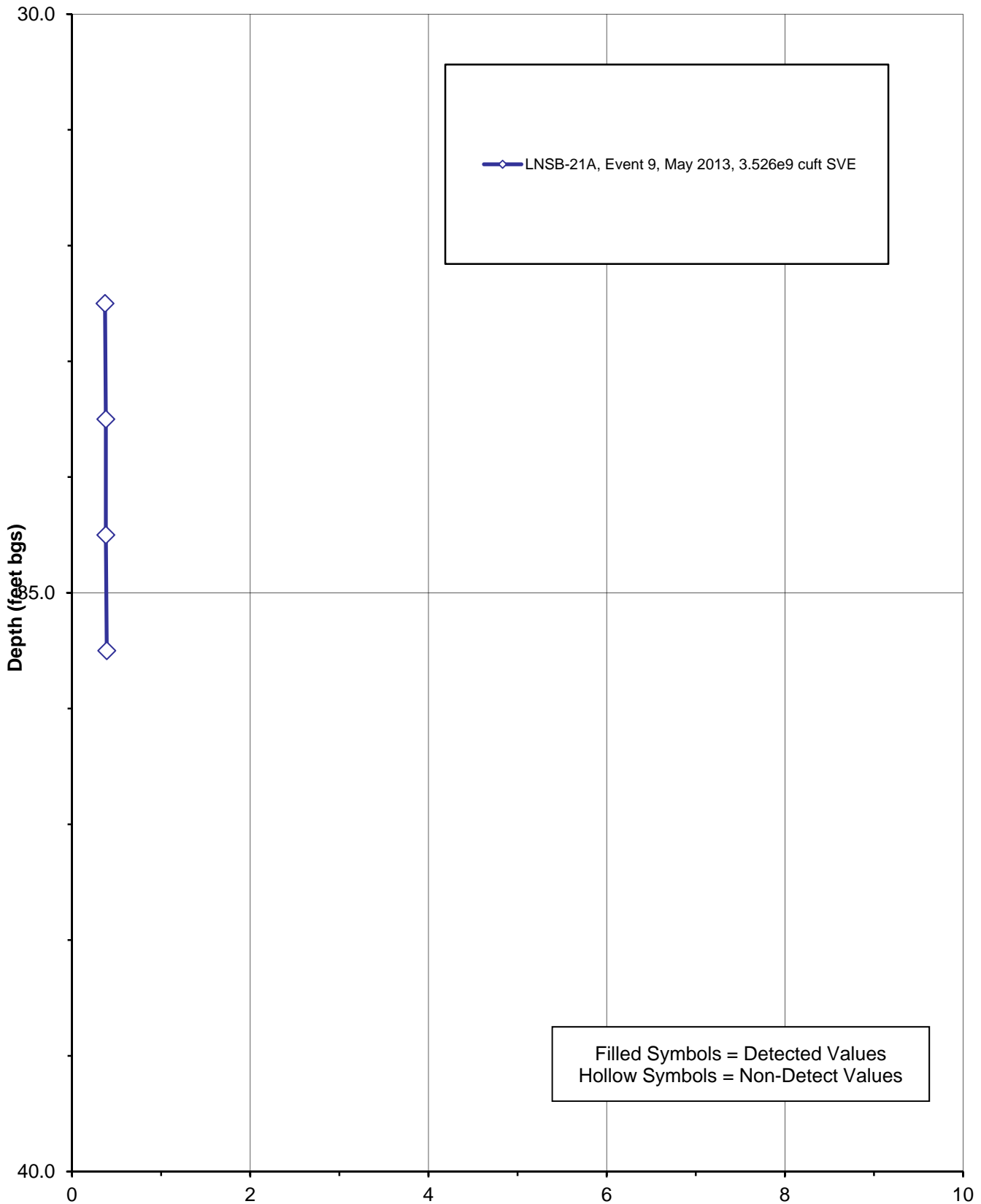


Figure 4j
TPH-GRO in Soil vs. Depth
LNSB-20, Event 9



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Hollow Symbols = Non-Detect Values

Figure 4k
TPH-GRO in Soil vs. Depth
LNSB-21, Event 9



Filled Symbols = Detected Values
Hollow Symbols = Non-Detect Values

Figure 4I
TPH-GRO in Soil vs. Depth
LNSB-22, Event 9

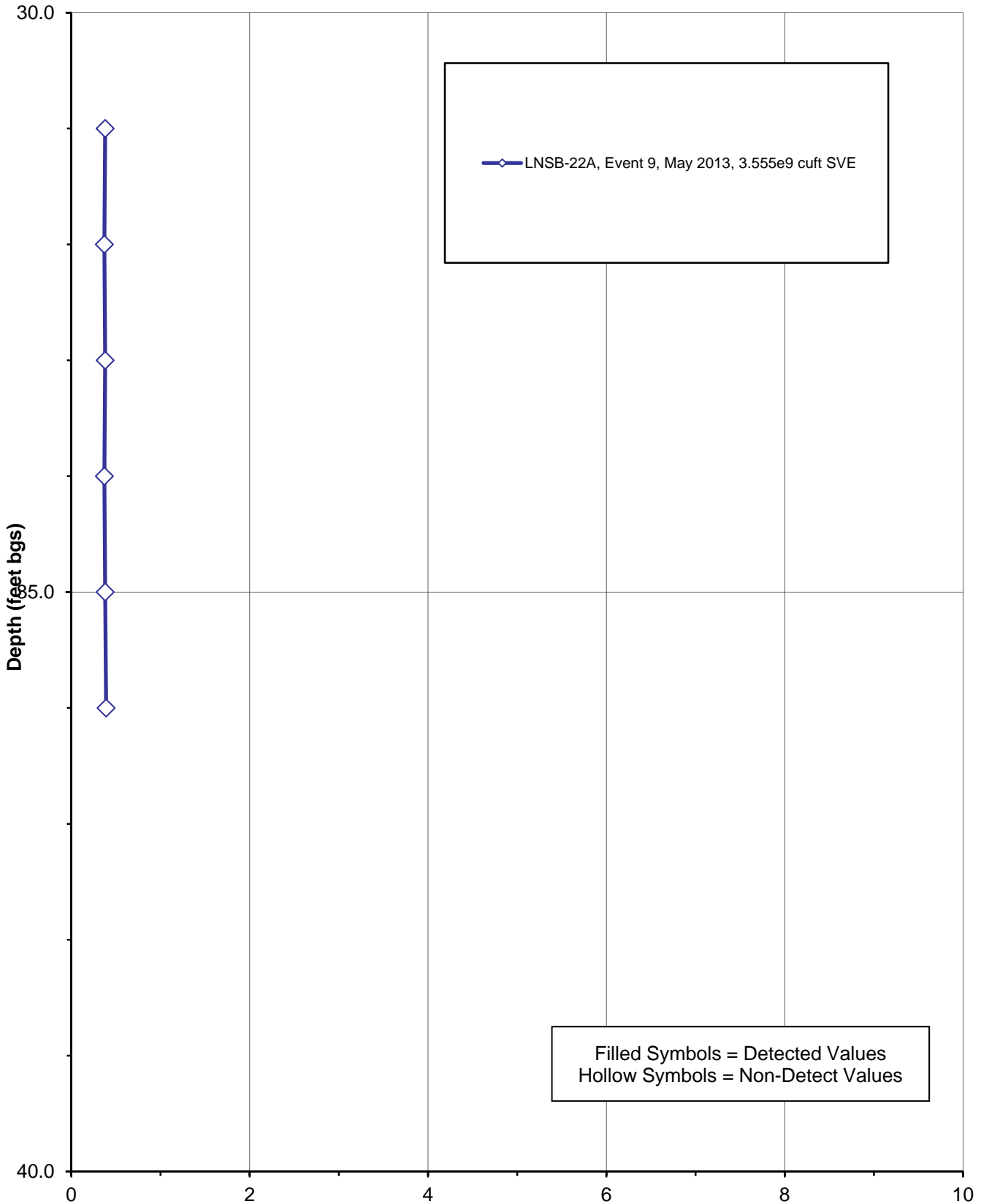


Figure 4m
TPH-GRO in Soil vs. Depth
LNSB-23, Event 9

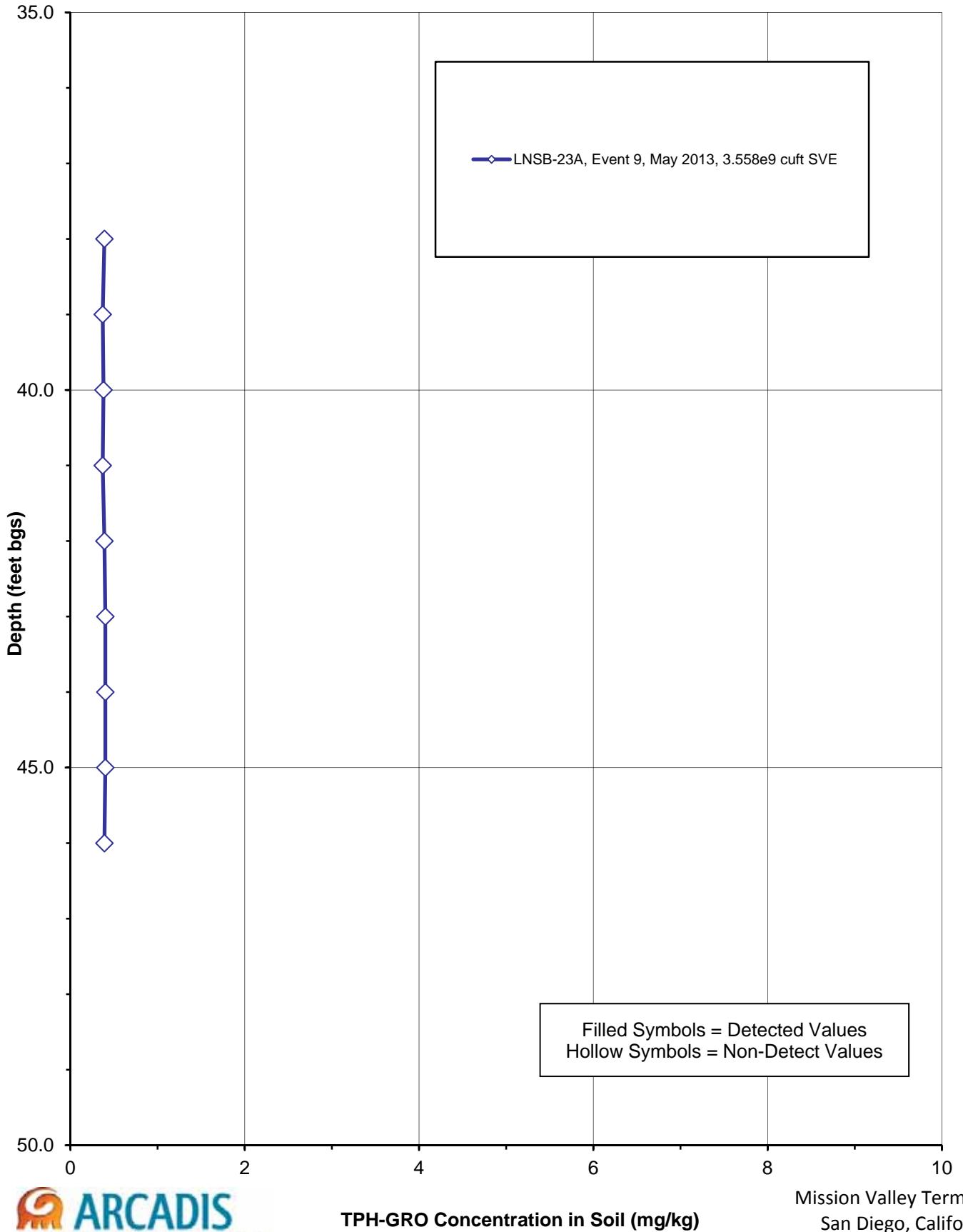
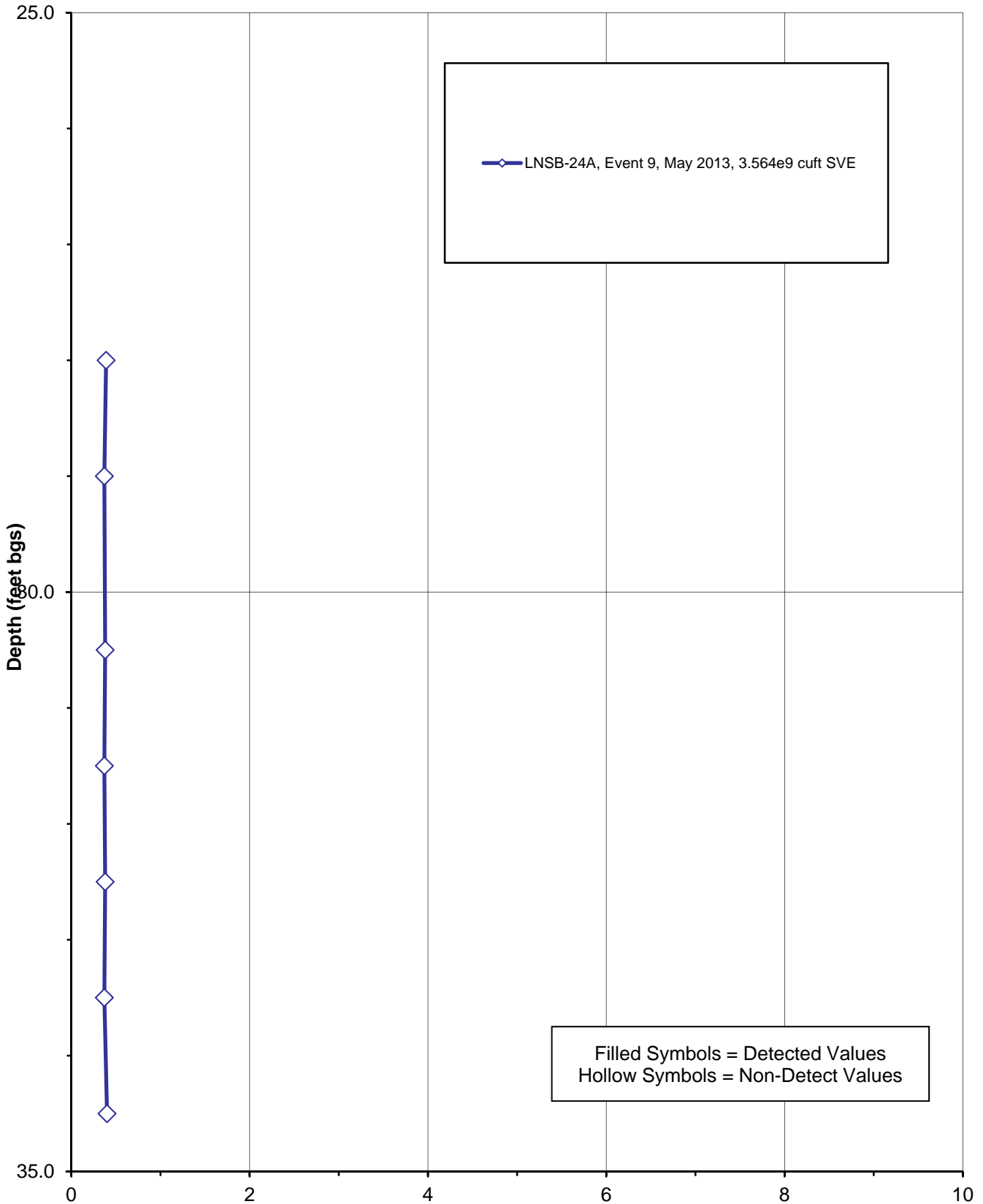
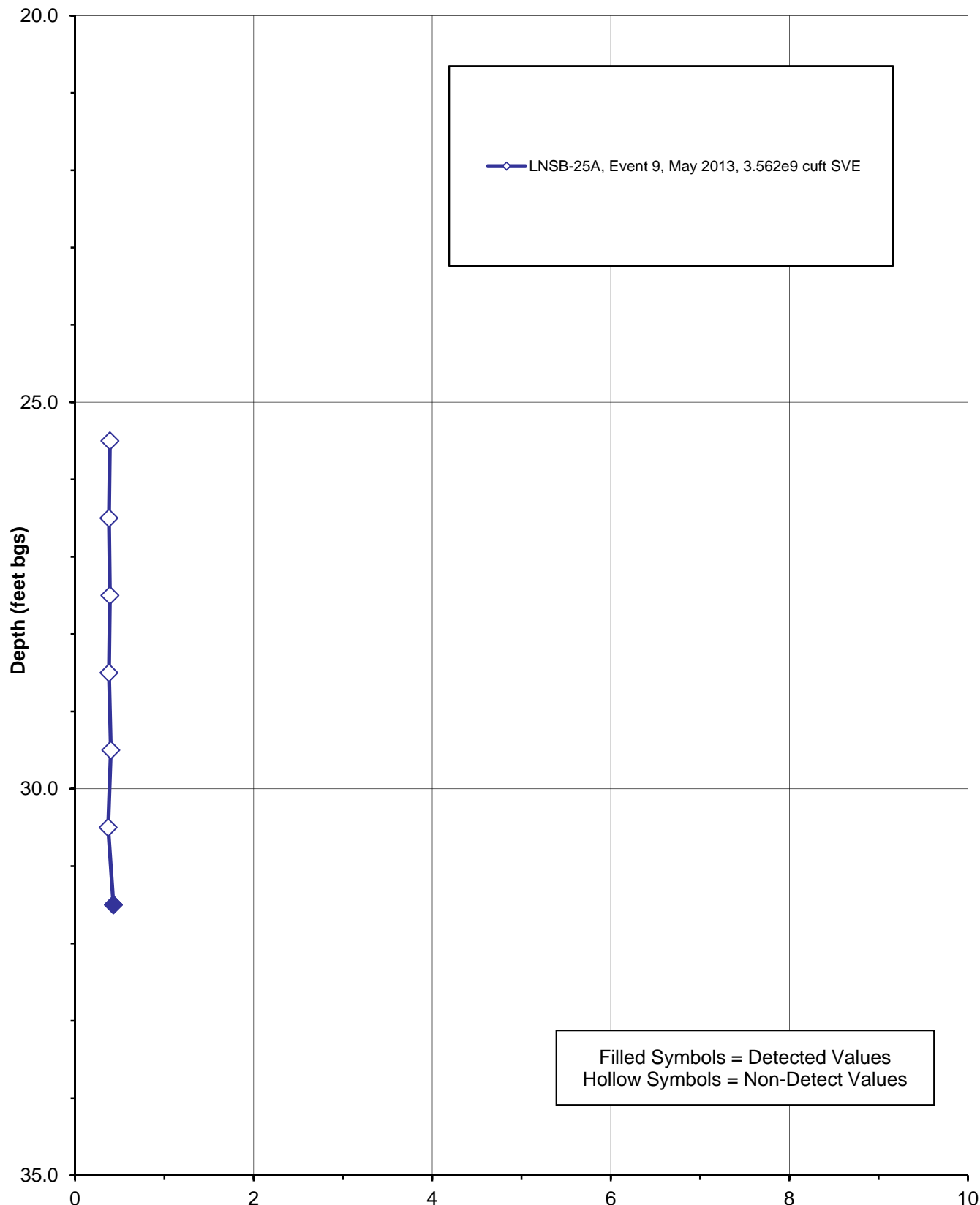


Figure 4n
TPH-GRO in Soil vs. Depth
LNSB-24, Event 9

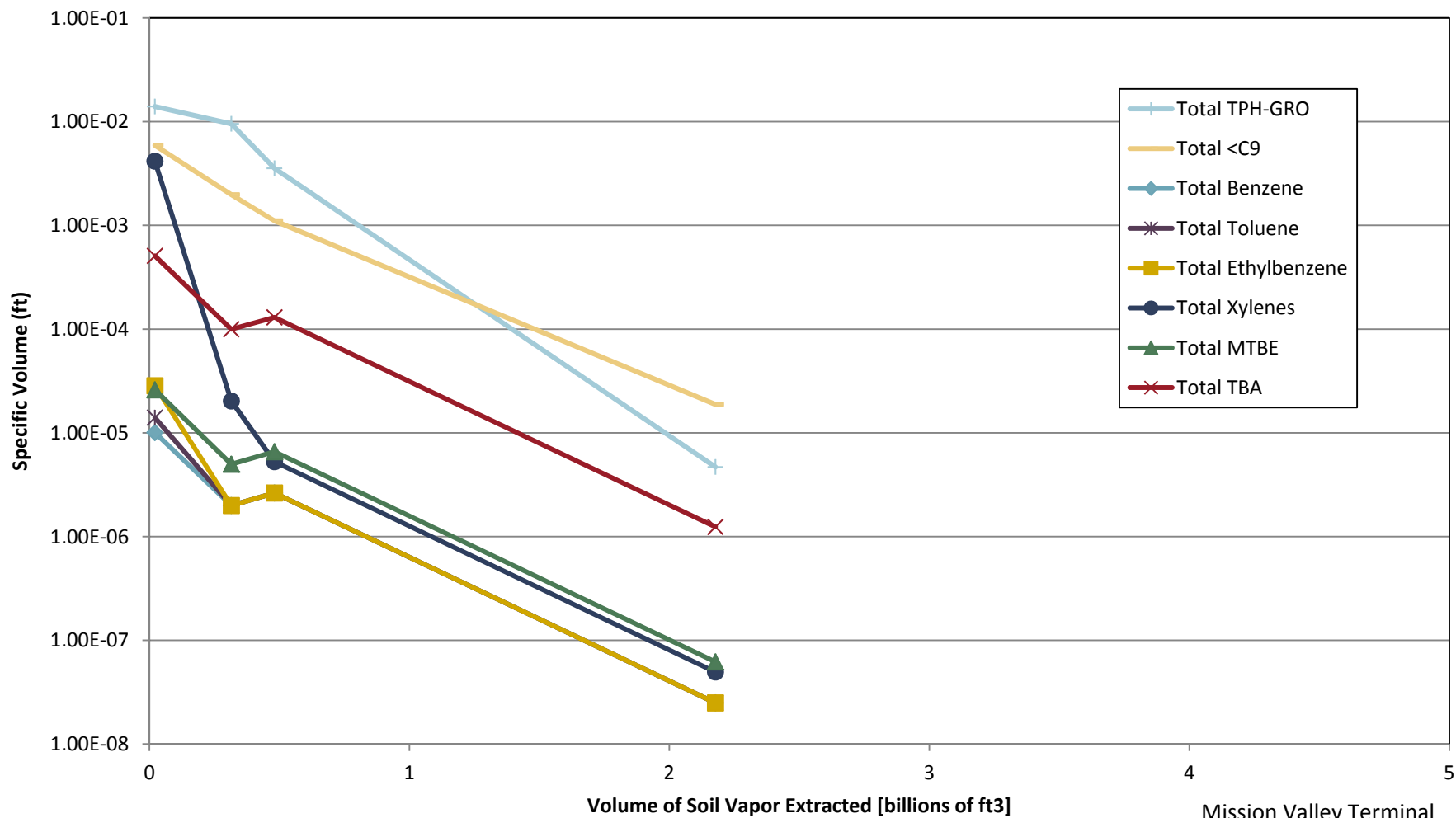


Filled Symbols = Detected Values
Hollow Symbols = Non-Detect Values

Figure 4o
TPH-GRO in Soil vs. Depth
LNSB-25, Event 9



Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-7

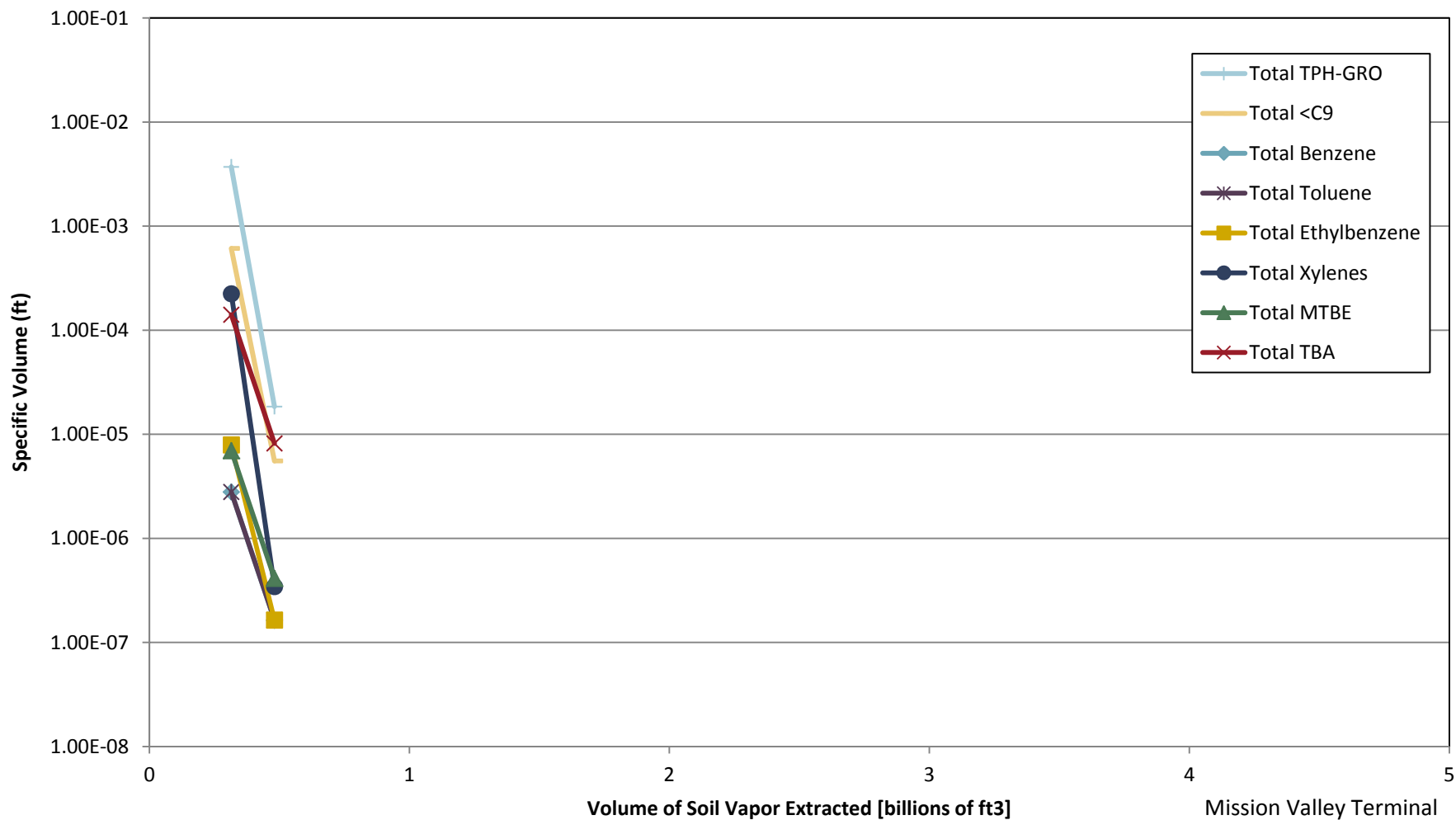


Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

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Figure 5a

Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-12

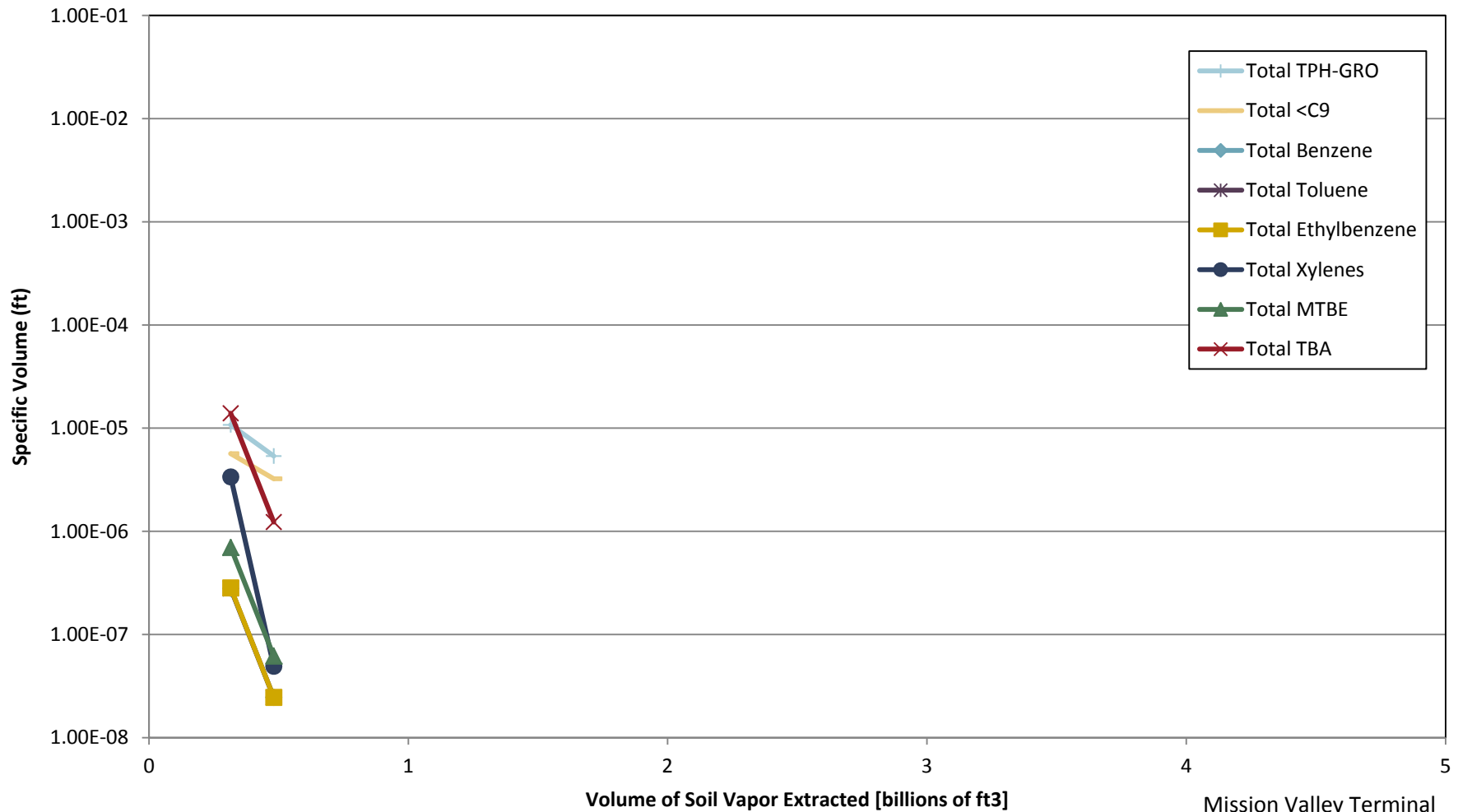


Mission Valley Terminal
San Diego, California
CM010143.0159

Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Figure 5b

Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-13

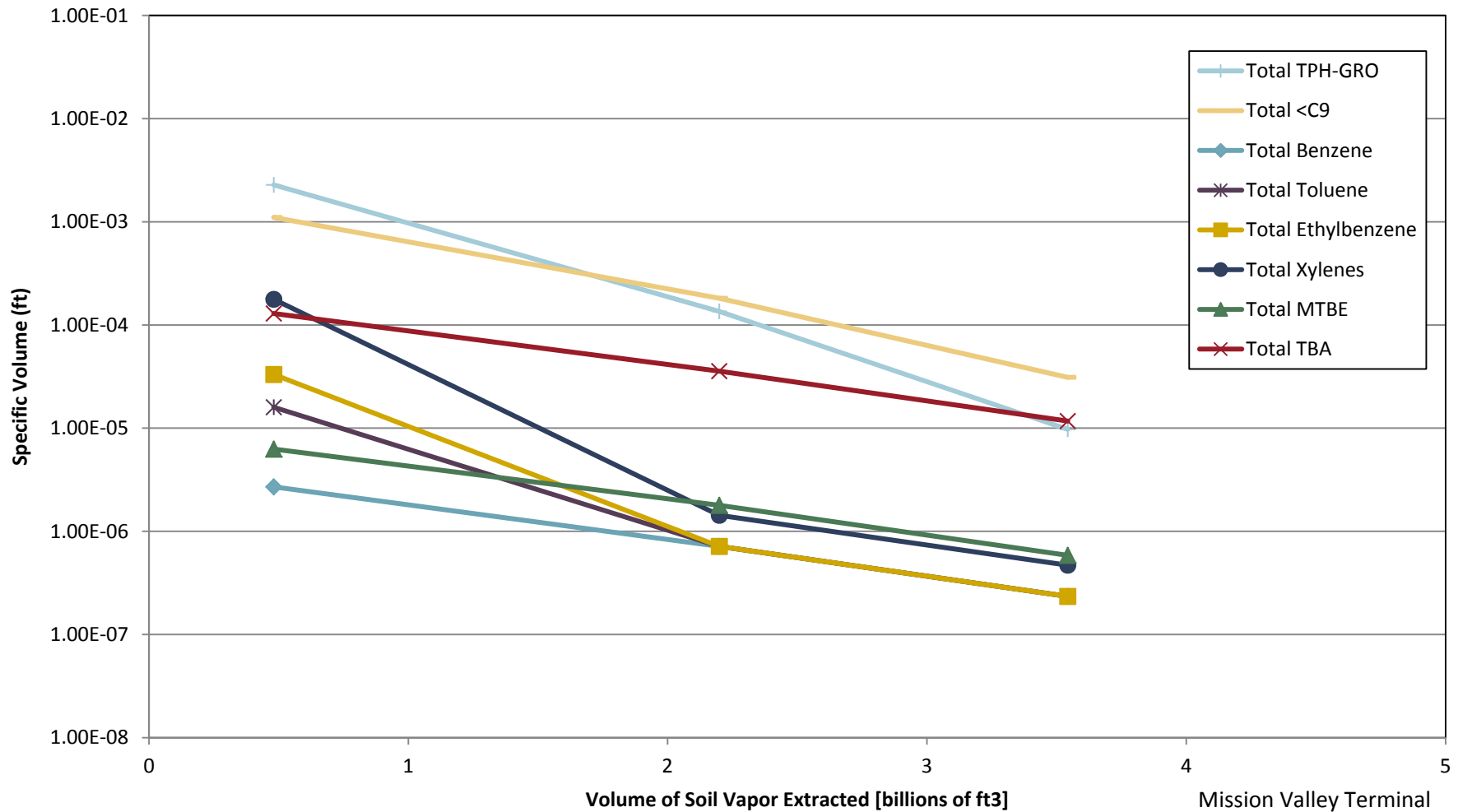


Mission Valley Terminal
San Diego, California
CM010143.0159

Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Figure 5c

Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-14

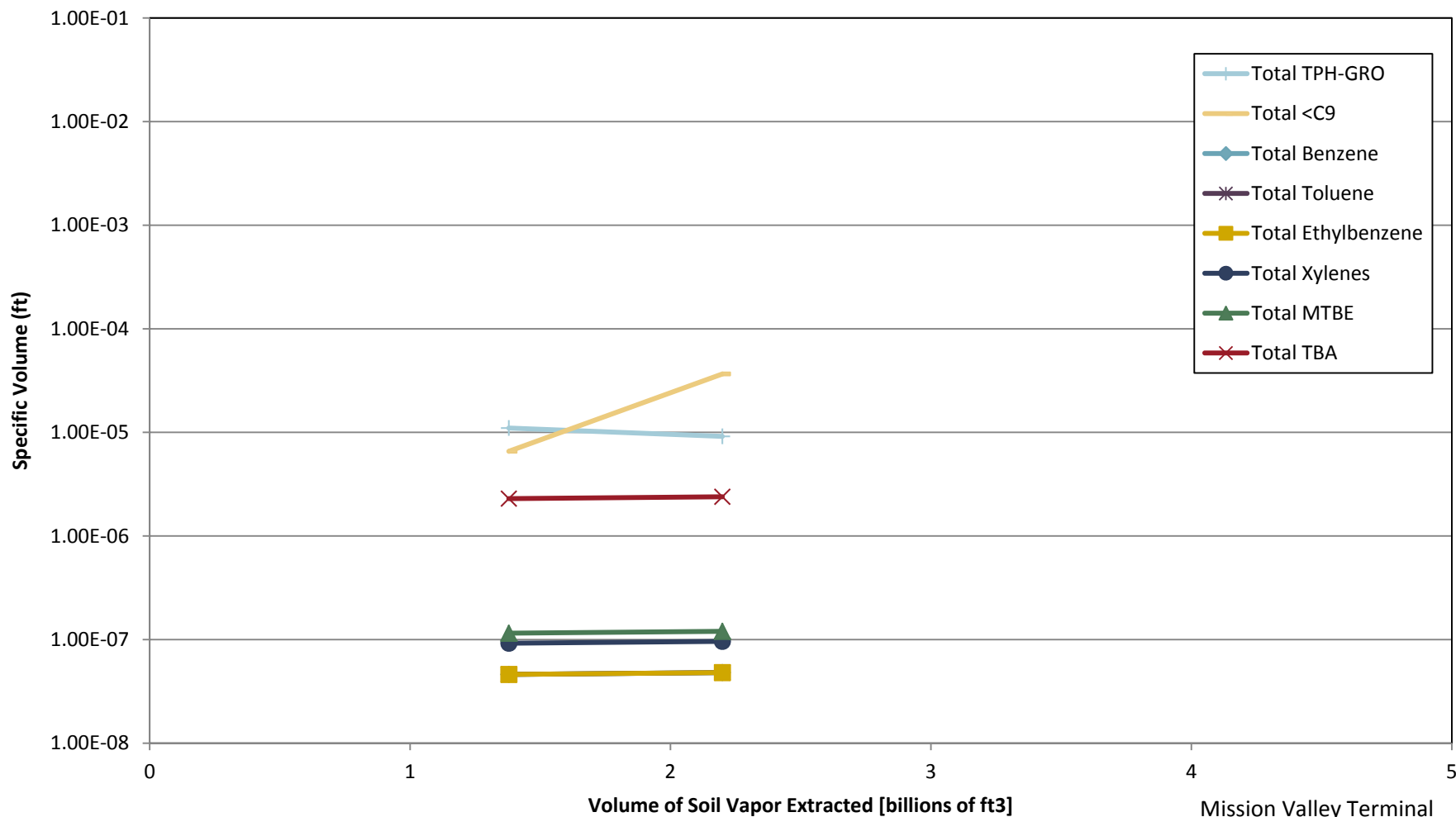


Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Mission Valley Terminal
San Diego, California
CM010143.0159

Figure 5d

Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-15

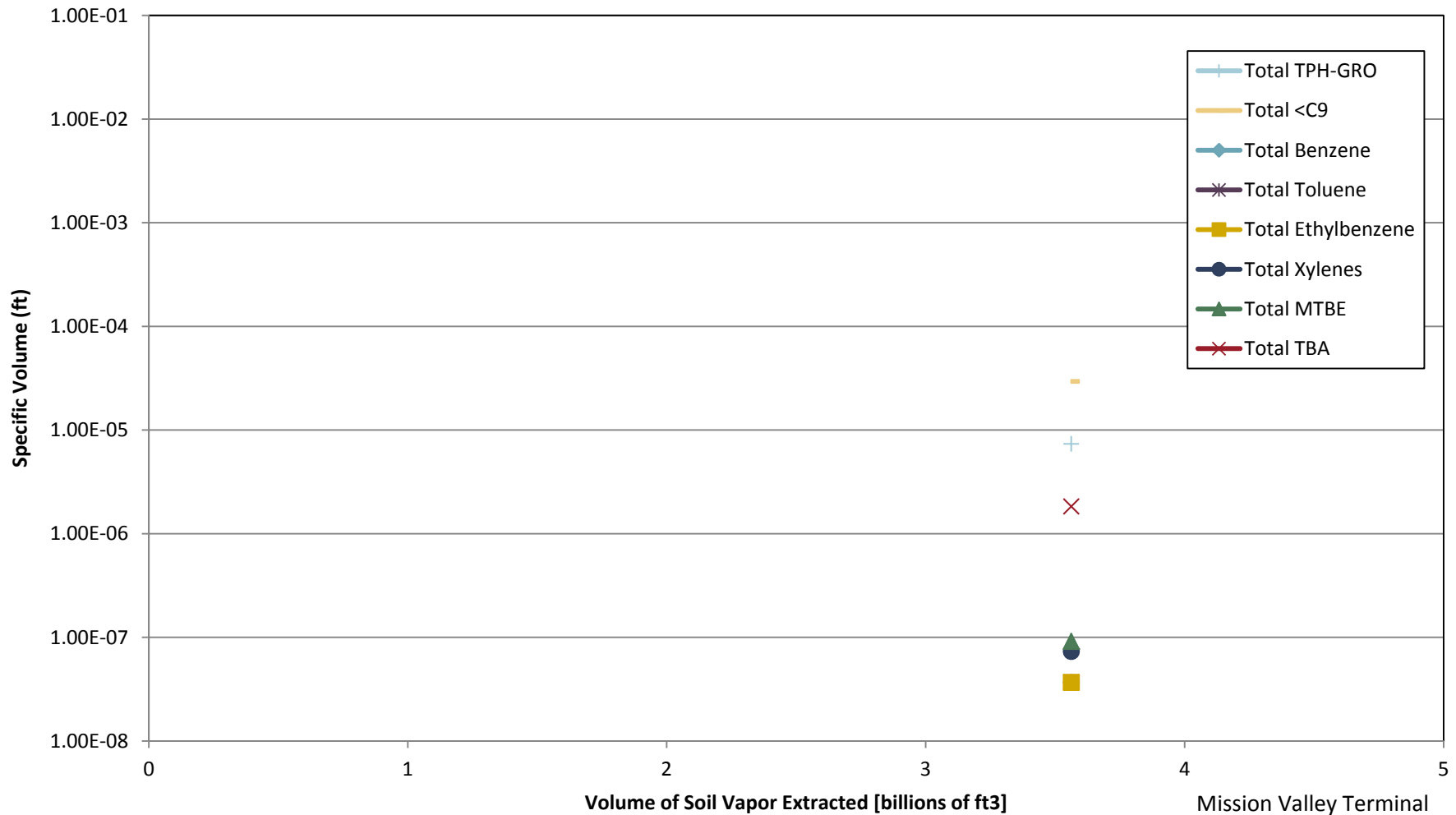


Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Mission Valley Terminal
San Diego, California
CM010143.0159

Figure 5e

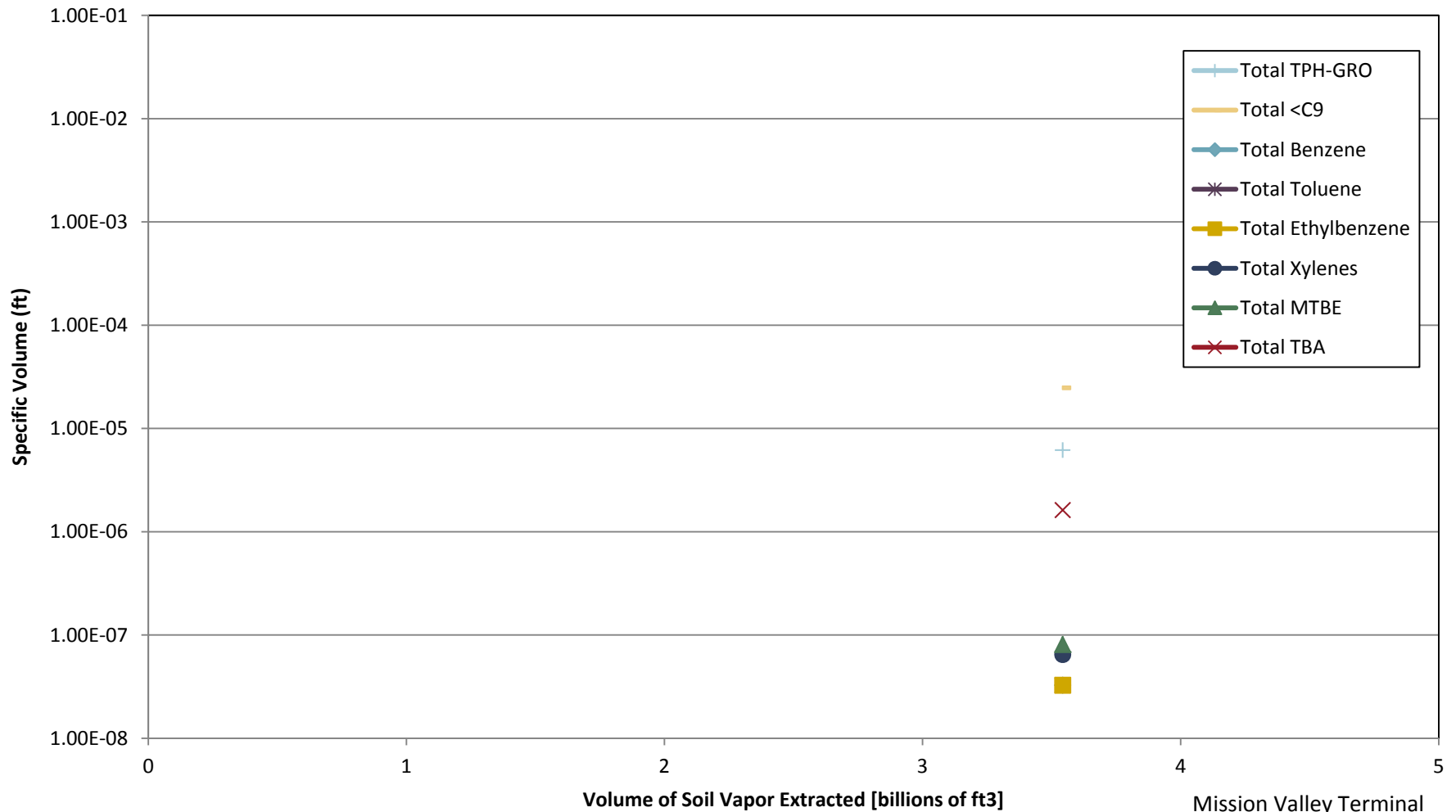
Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-16



Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Mission Valley Terminal
San Diego, California
CM010143.0159

Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-17

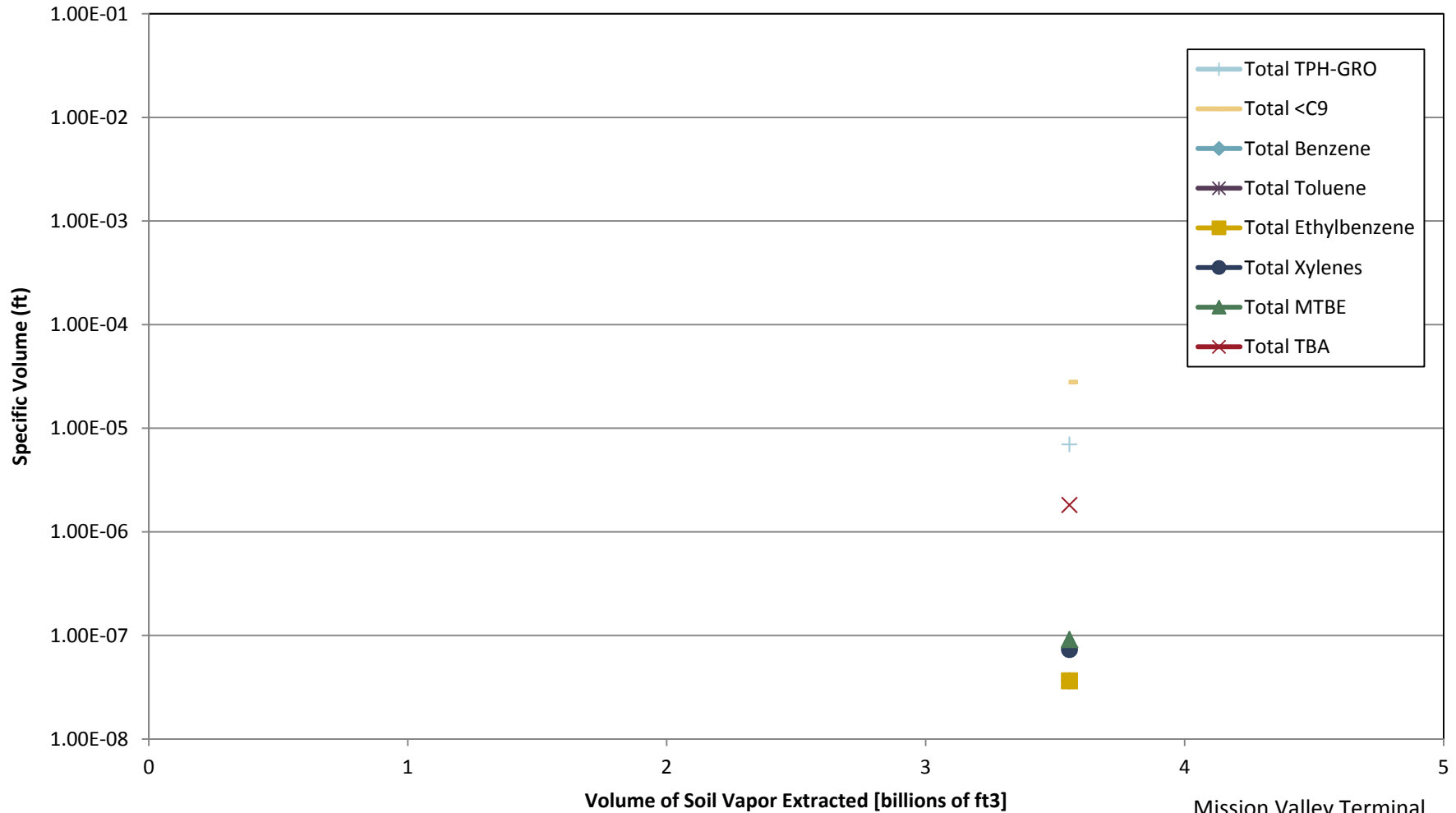


Mission Valley Terminal
San Diego, California
CM010143.0159

Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Figure 5g

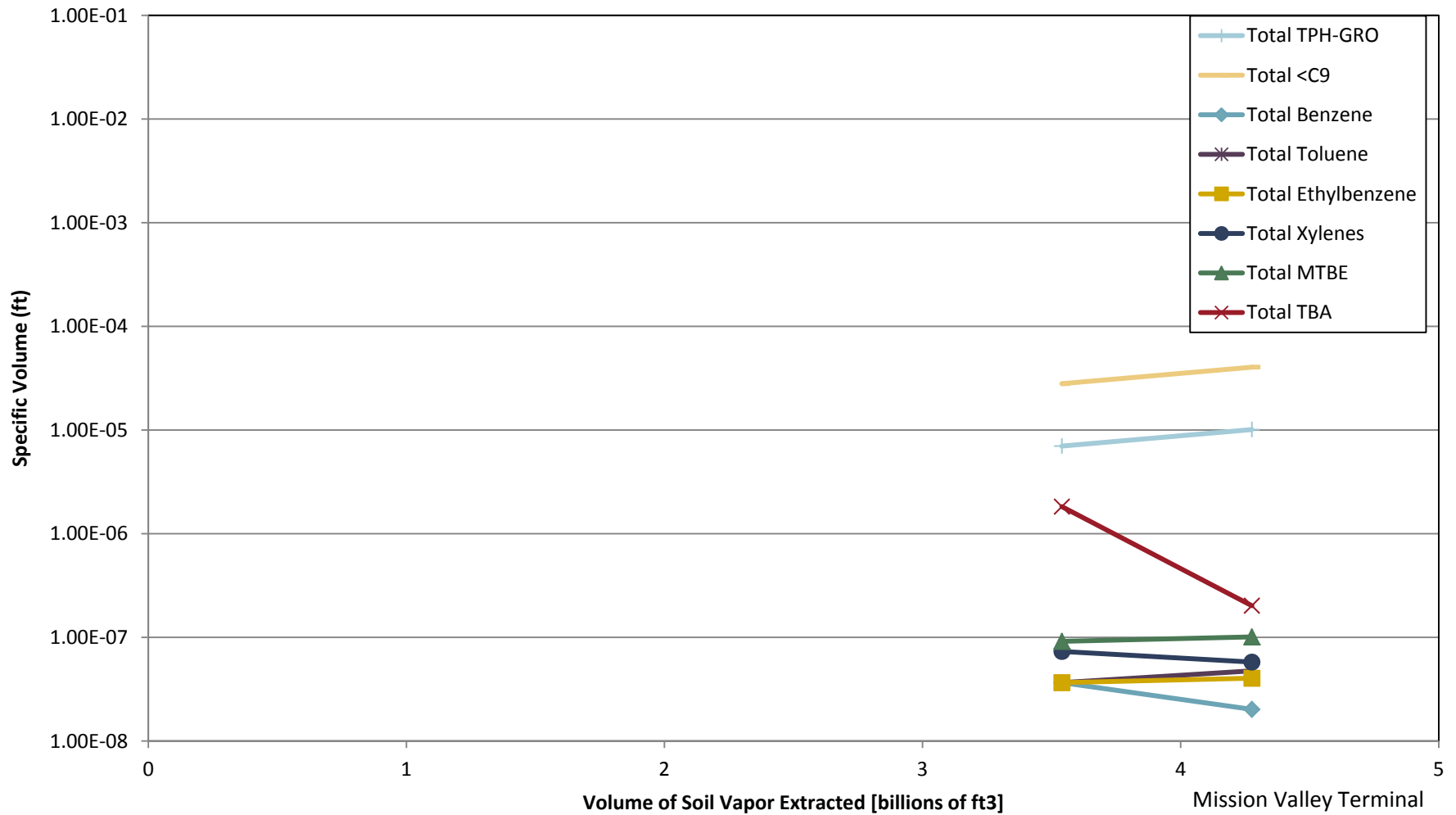
Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-18



Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Mission Valley Terminal
San Diego, California
CM010143.0159

Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-19

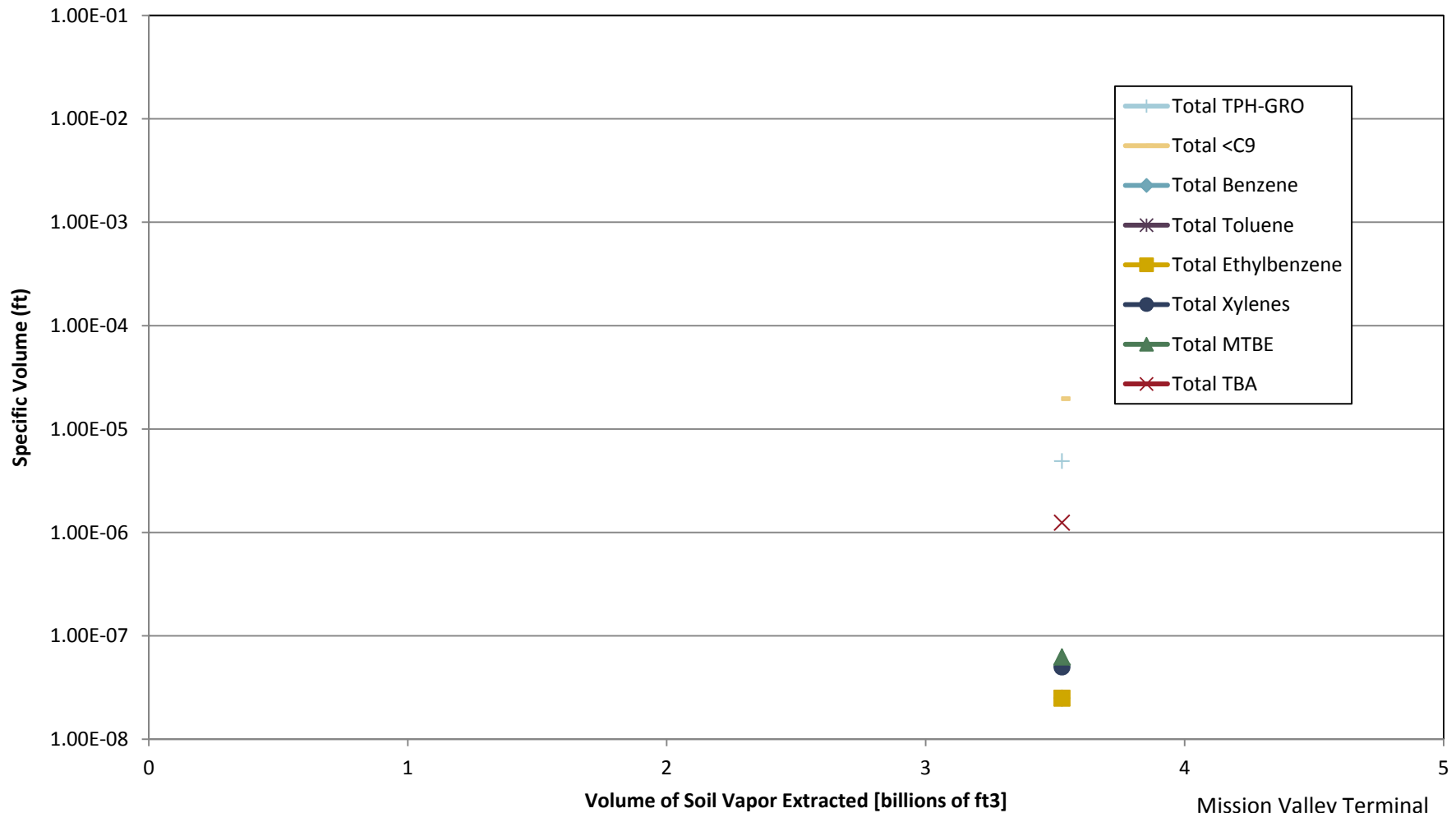


Mission Valley Terminal
San Diego, California
CM010143.0159

Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Figure 5i

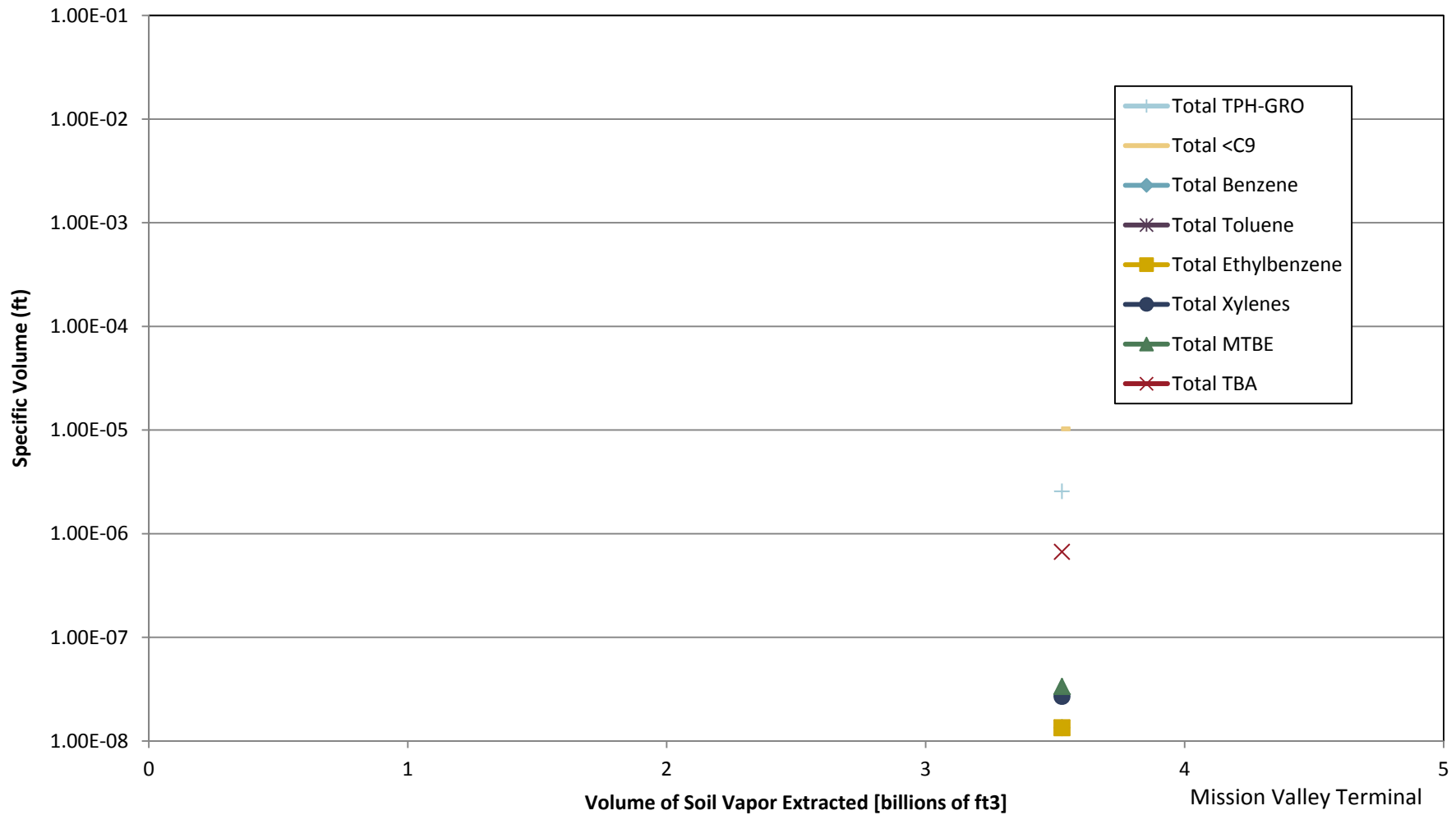
Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-20



Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Mission Valley Terminal
San Diego, California
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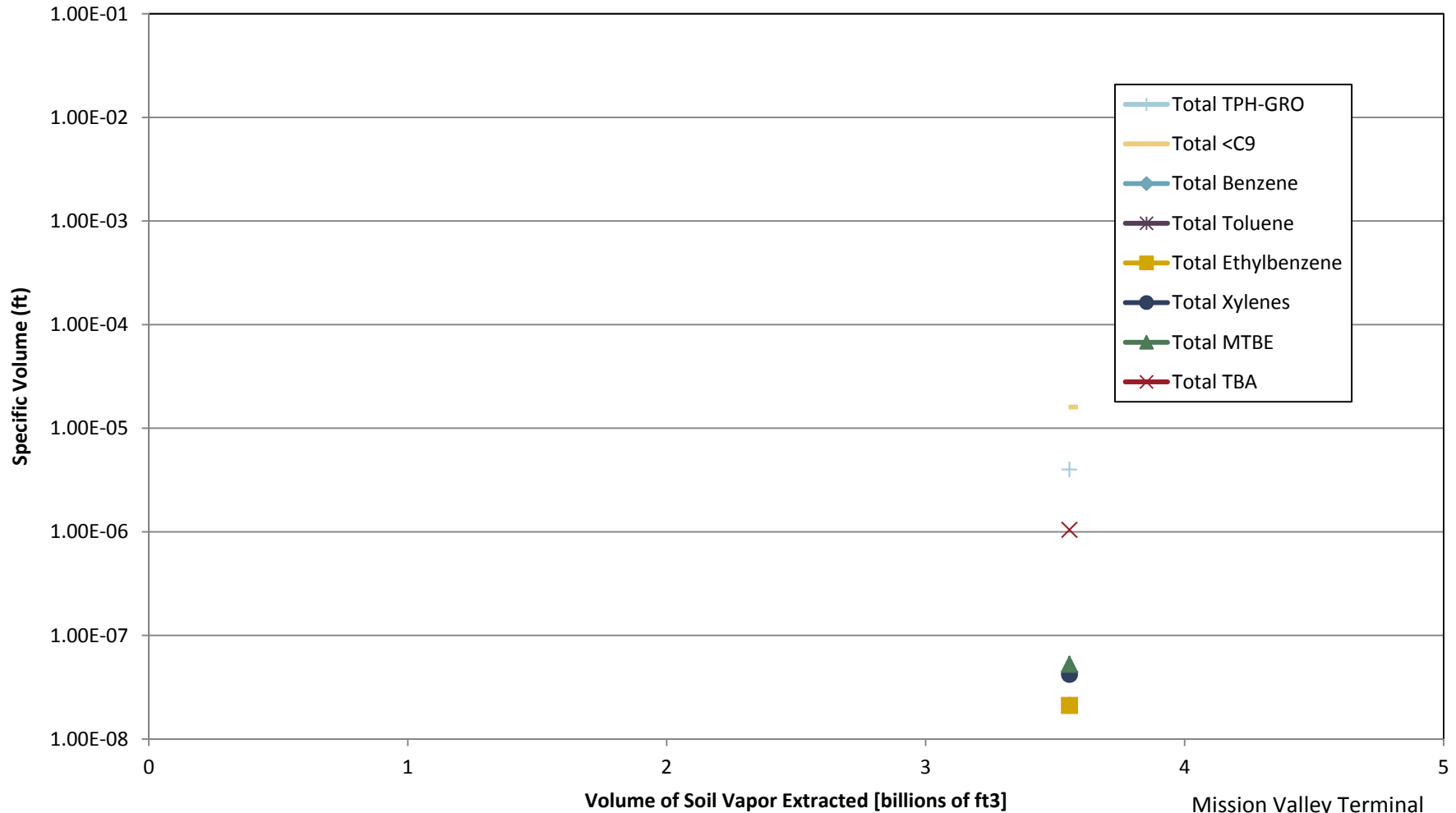
Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-21



Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Mission Valley Terminal
San Diego, California
CM010143.0159

Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-22

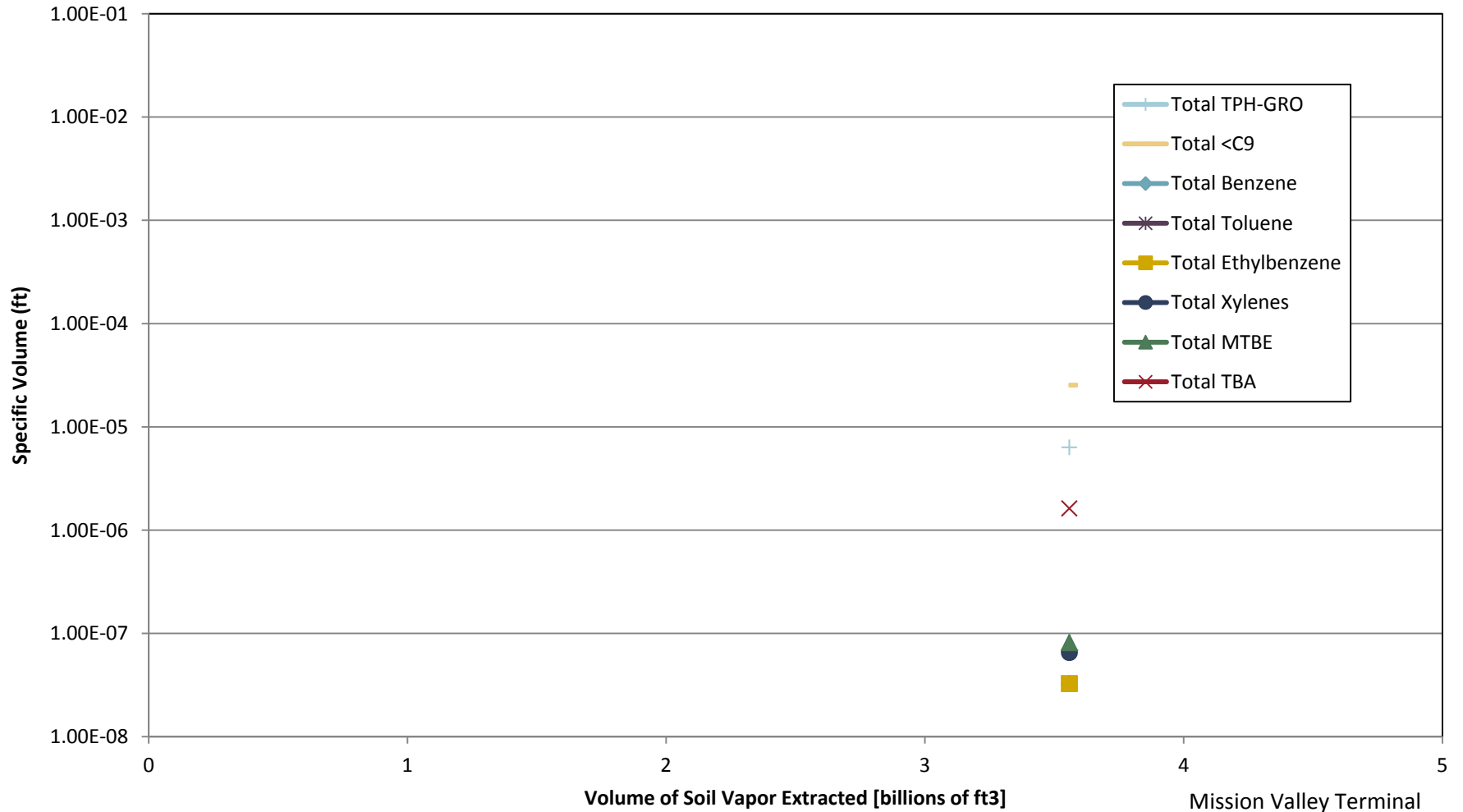


Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Mission Valley Terminal
San Diego, California
CM010143.0159

Figure 5I

Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-23

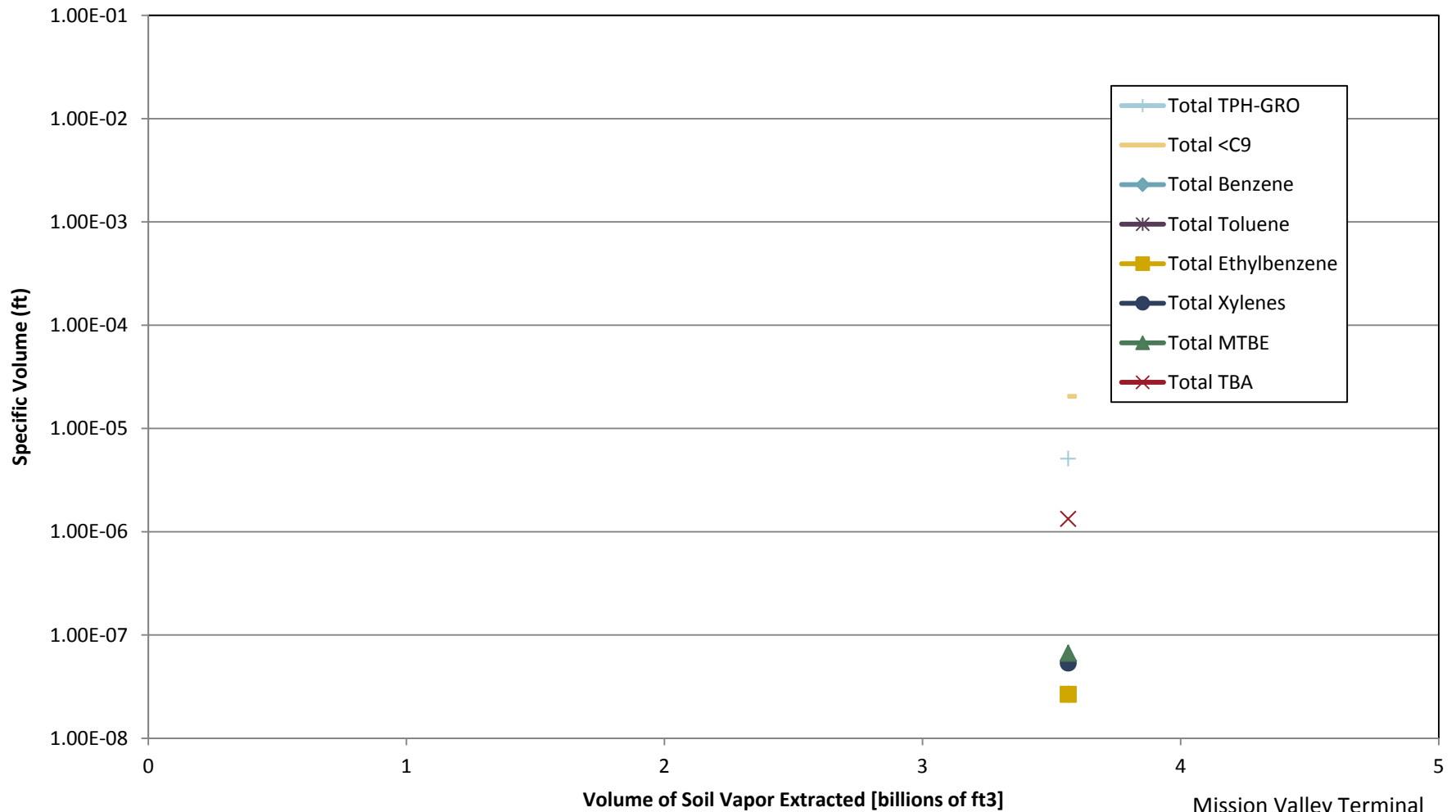


Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Mission Valley Terminal
San Diego, California
CM010143.0159

Figure 5m

Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-24

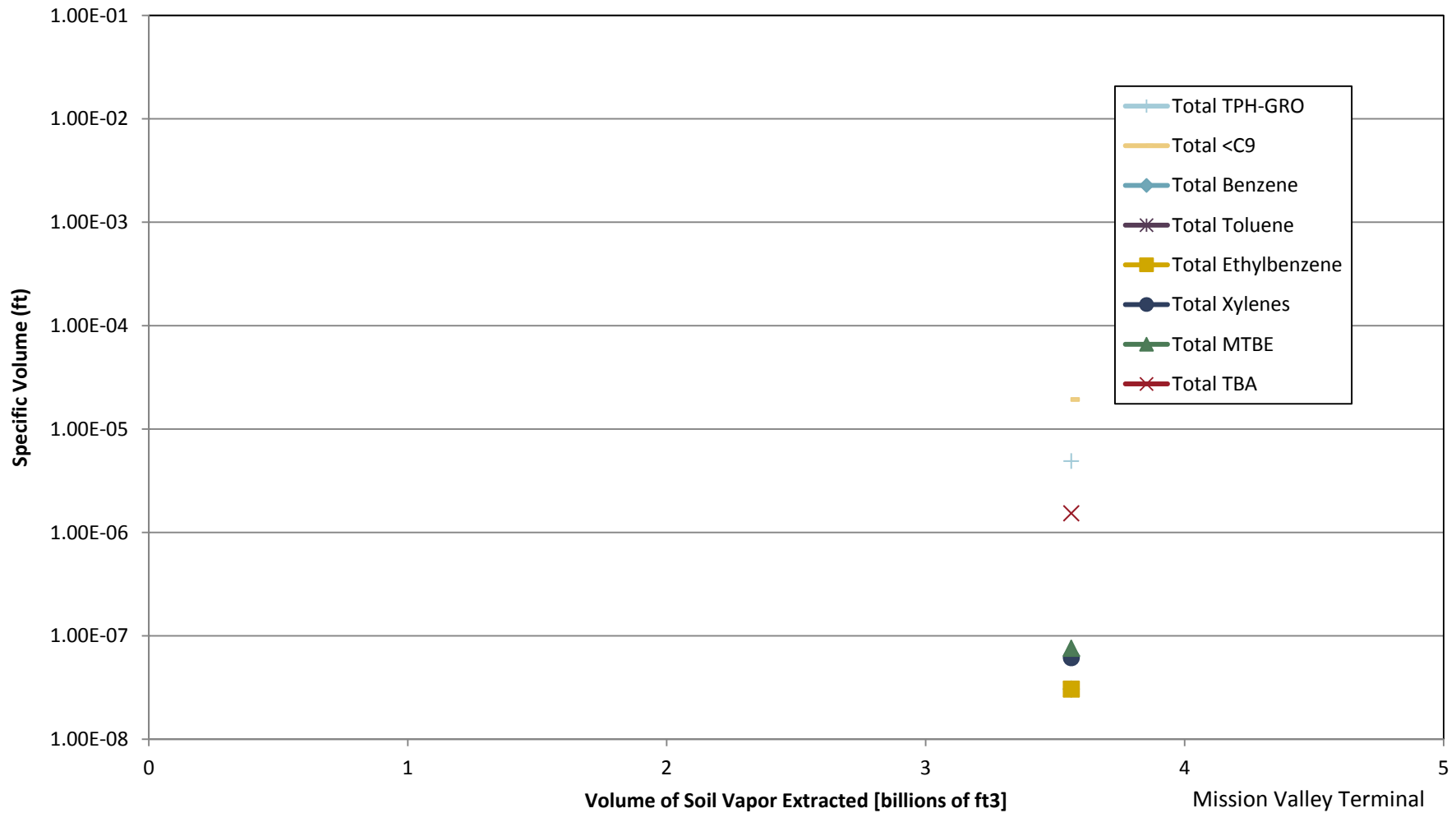


Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

Mission Valley Terminal
San Diego, California
CM010143.0159

Figure 5n

Specific Volume of COCs in Soil vs. Volume of Soil Vapor Extracted, LNSB-25

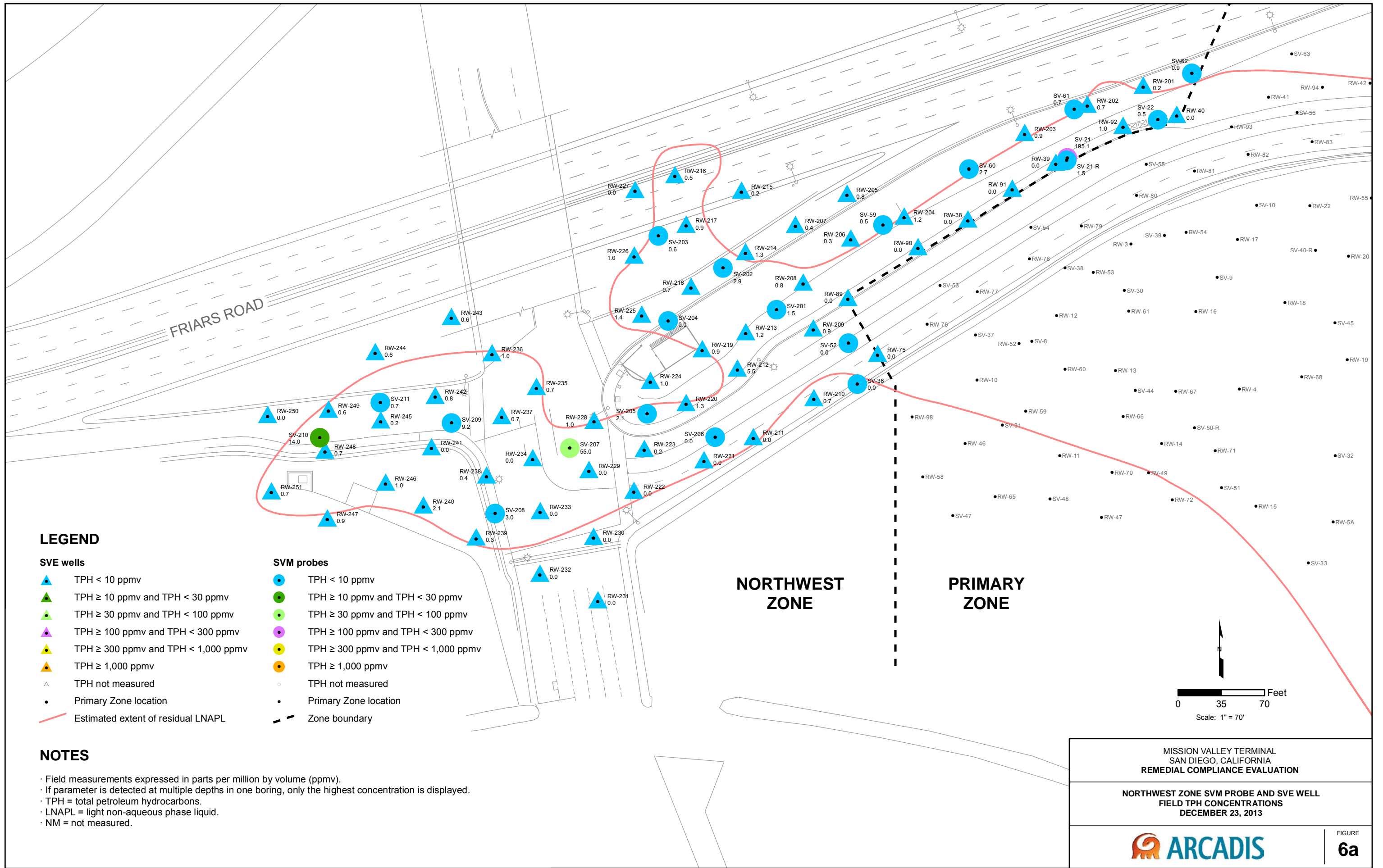


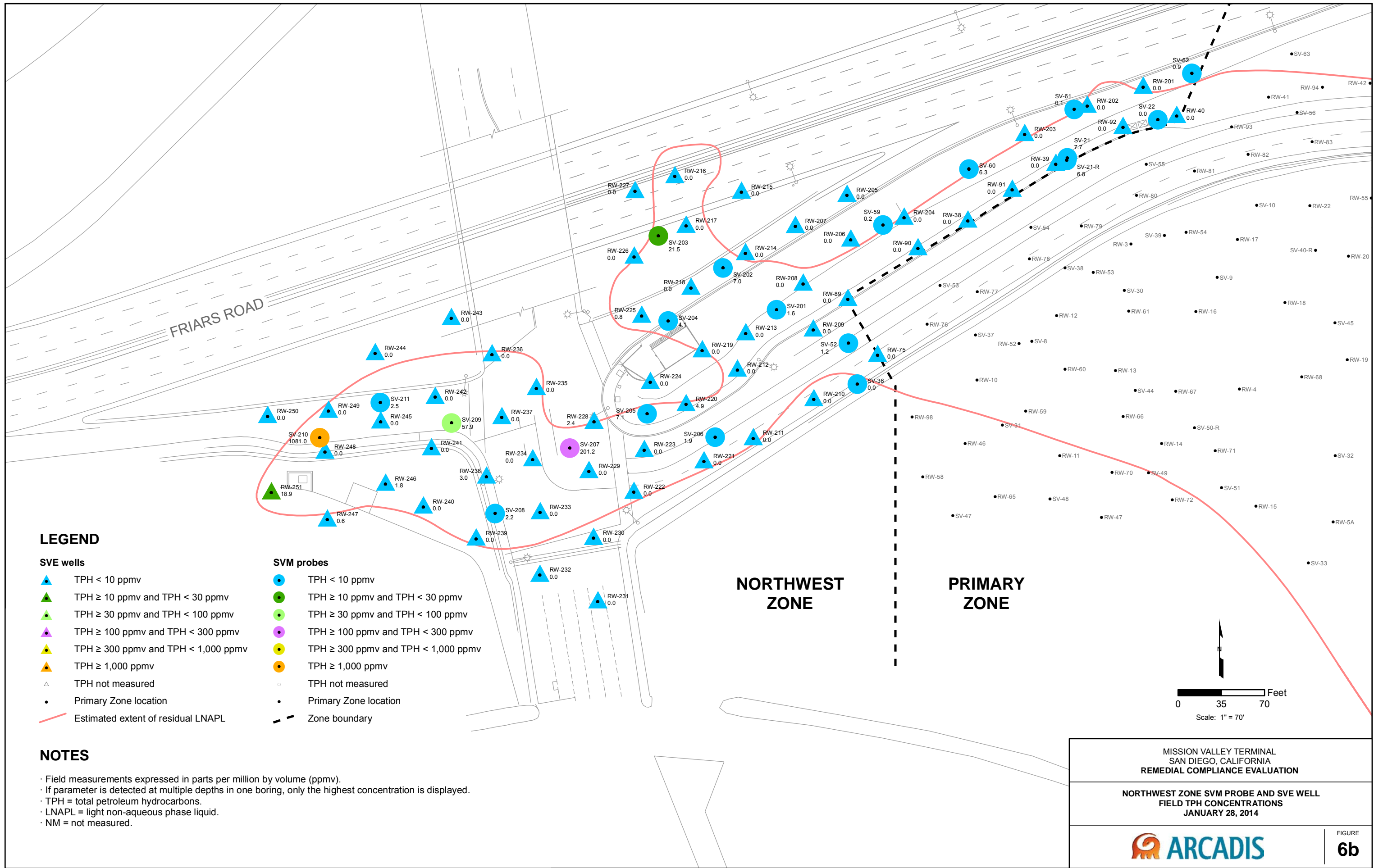
Mission Valley Terminal
San Diego, California
CM010143.0159

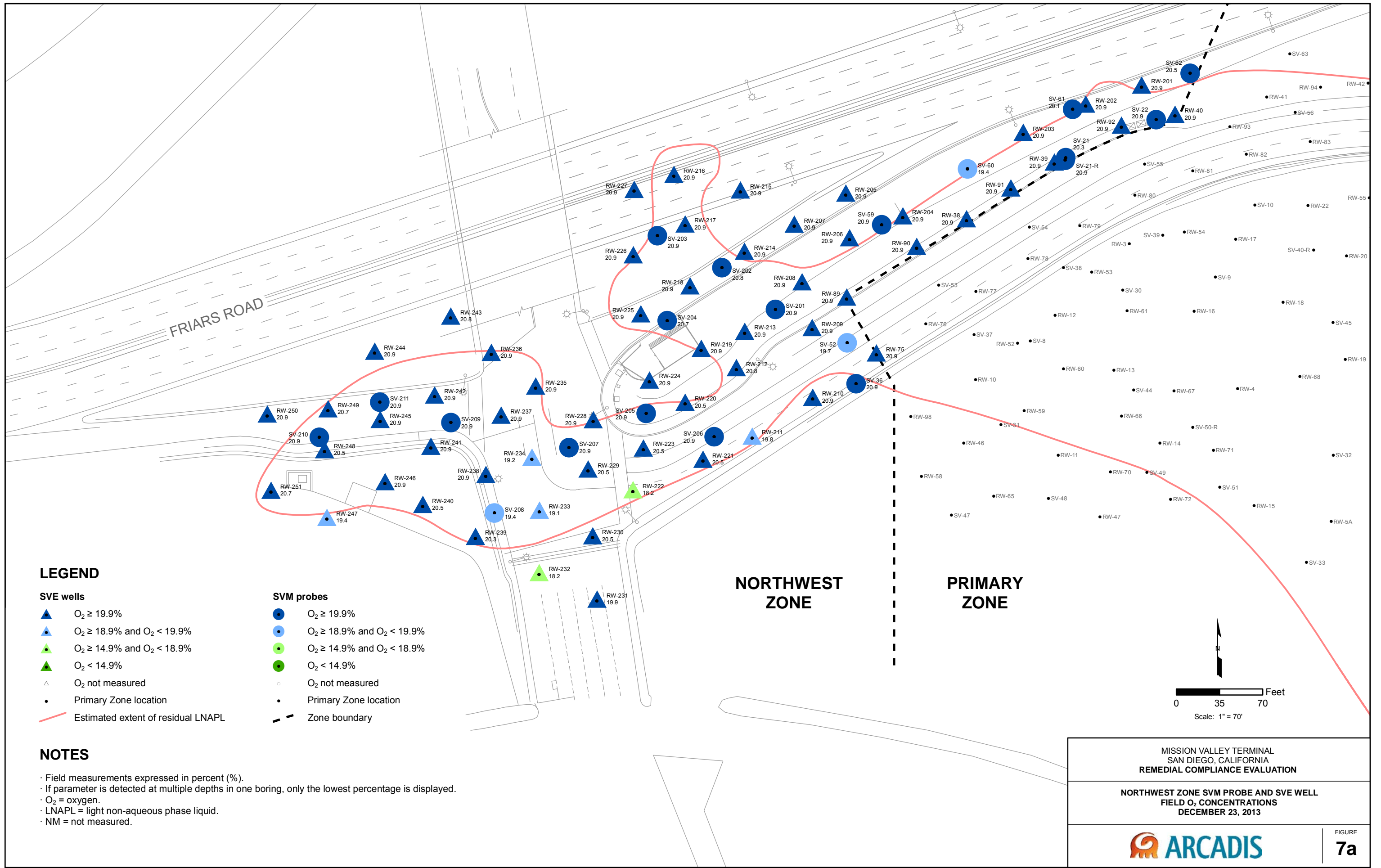
Note: <C9 and TBA levels that are greater than Total TPH-GRO levels are due to reporting limit levels.

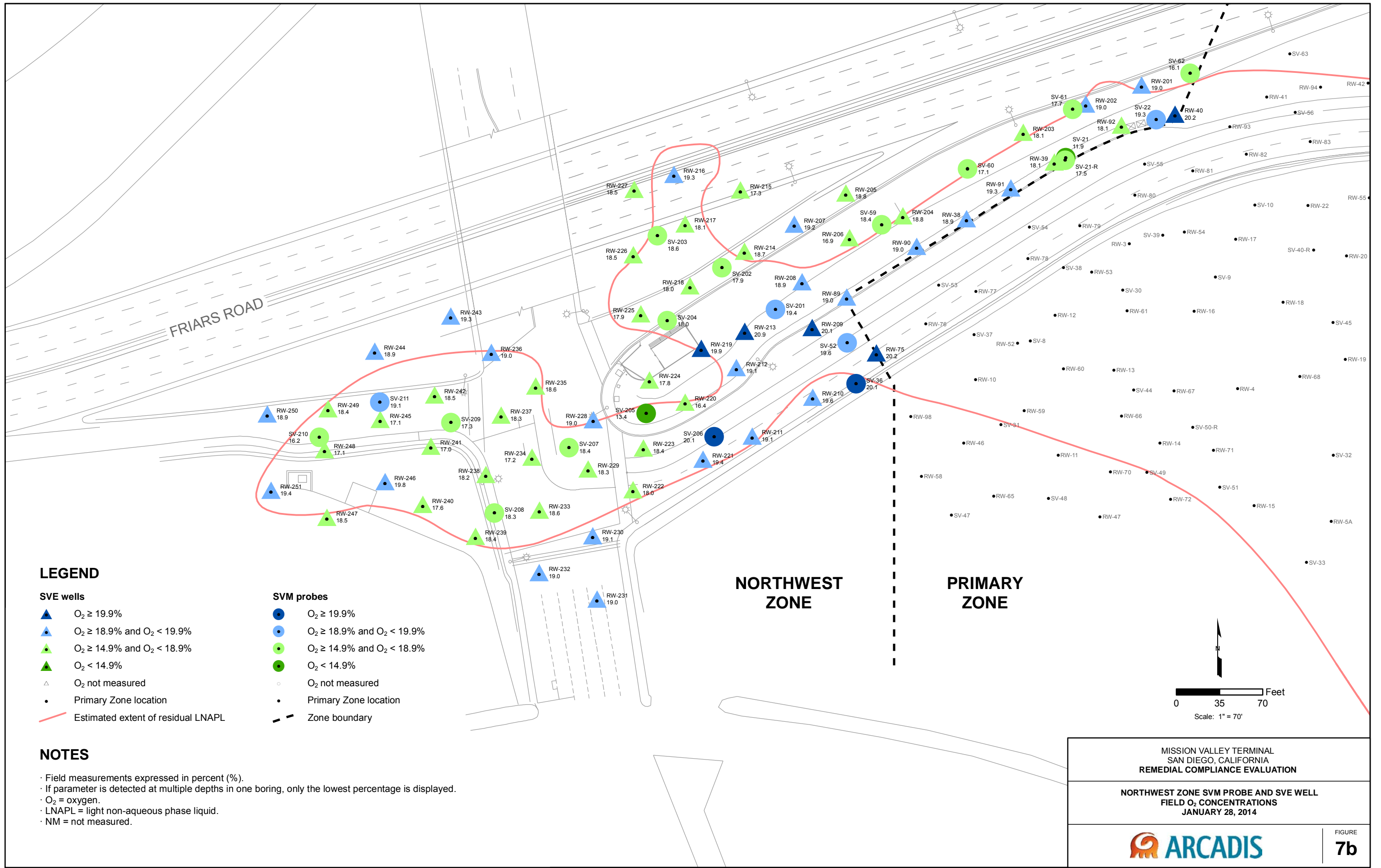
Figure 5o

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LEGEND

SVE wells

- ▲ O₂ ≥ 19.9%
- ▲ O₂ ≥ 18.9% and O₂ < 19.9%
- ▲ O₂ ≥ 14.9% and O₂ < 18.9%
- ▲ O₂ < 14.9%
- △ O₂ not measured
- Primary Zone location
- Estimated extent of residual LNAPL

SVM probes

- O₂ ≥ 19.9%
- O₂ ≥ 18.9% and O₂ < 19.9%
- O₂ ≥ 14.9% and O₂ < 18.9%
- O₂ < 14.9%
- O₂ not measured
- Primary Zone location
- - - Zone boundary

NOTES

- Field measurements expressed in percent (%).
- If parameter is detected at multiple depths in one boring, only the lowest percentage is displayed.
- O₂ = oxygen.
- LNAPL = light non-aqueous phase liquid.
- NM = not measured.

MISSION VALLEY TERMINAL
SAN DIEGO, CALIFORNIA
REMEDIAL COMPLIANCE EVALUATION

**NORTHWEST ZONE SVM PROBE AND SVE WELL
FIELD O₂ CONCENTRATIONS
JANUARY 28, 2014**


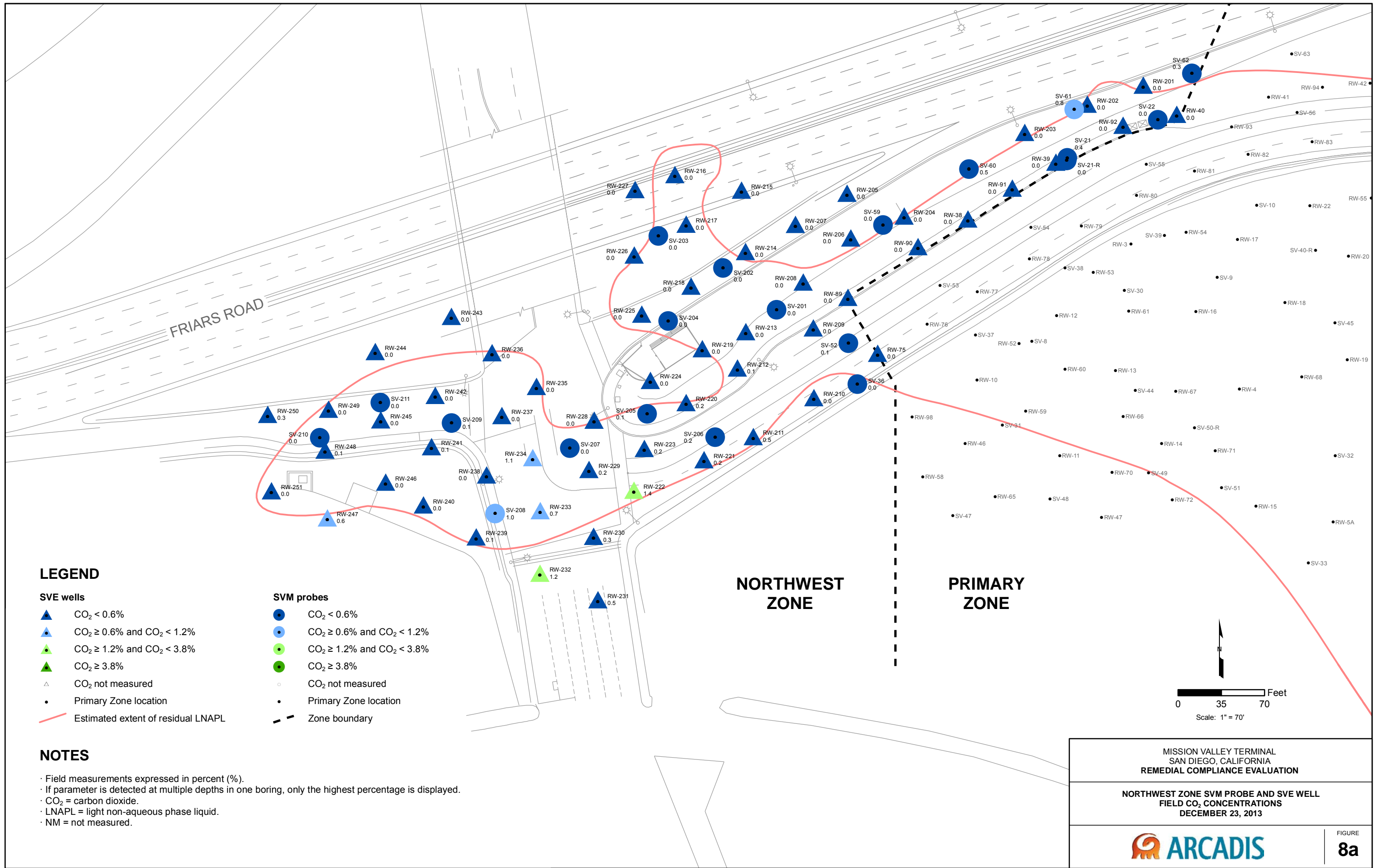
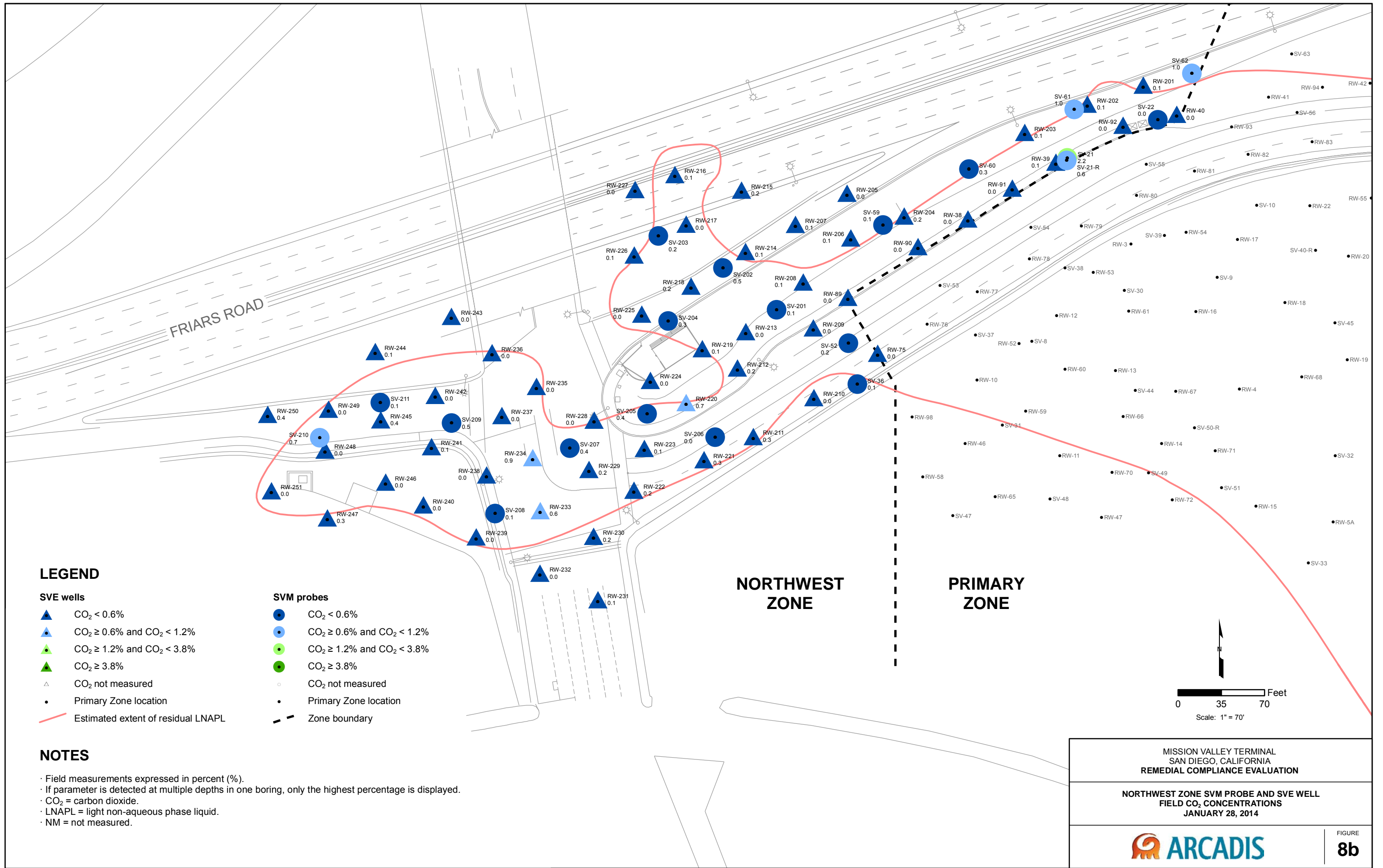
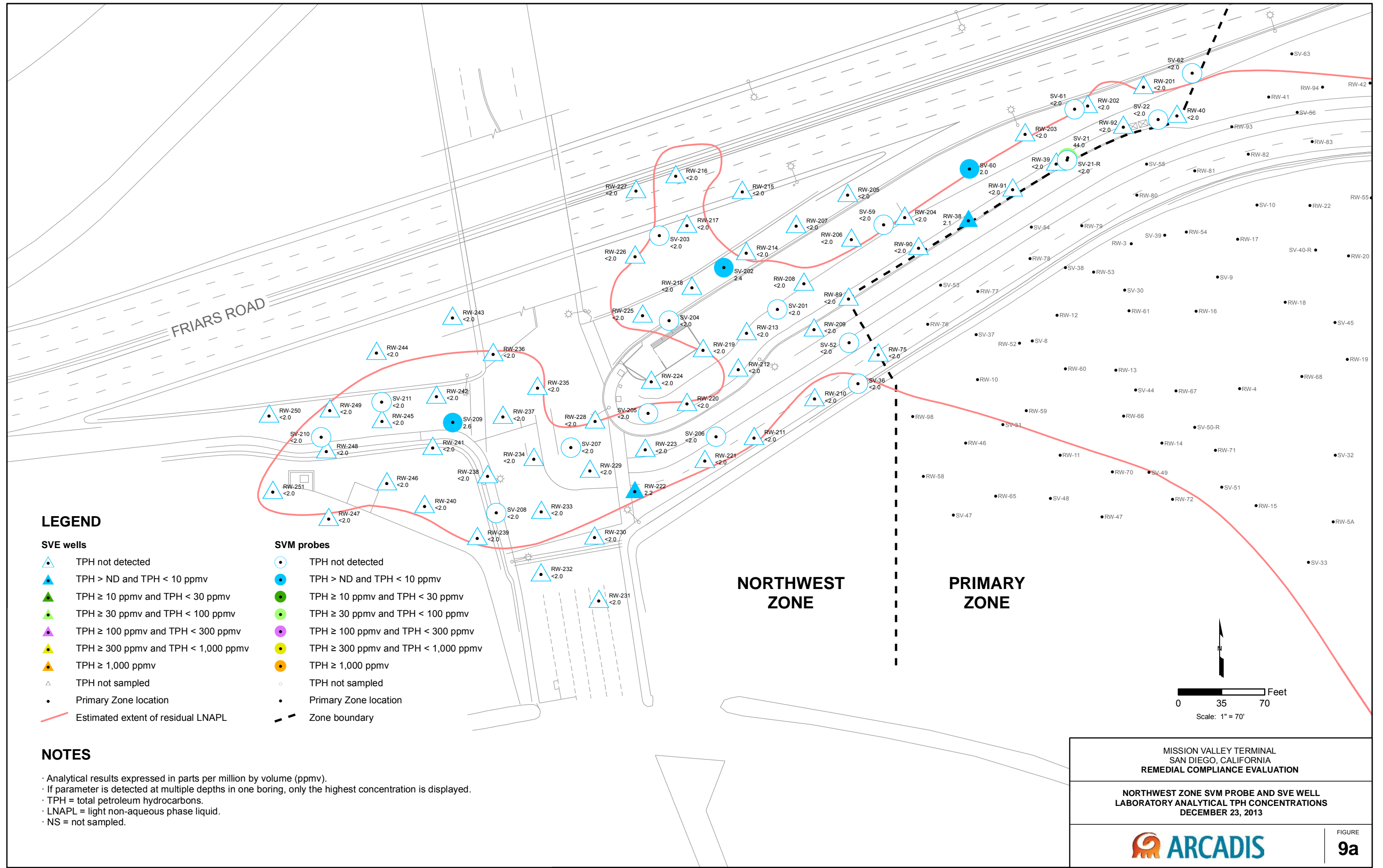


FIGURE
7b







LEGEND

SVE wells

- ▲ TPH not detected
- ▲ TPH > ND and TPH < 10 ppmv
- ▲ TPH ≥ 10 ppmv and TPH < 30 ppmv
- ▲ TPH ≥ 30 ppmv and TPH < 100 ppmv
- ▲ TPH ≥ 100 ppmv and TPH < 300 ppmv
- ▲ TPH ≥ 300 ppmv and TPH < 1,000 ppmv
- ▲ TPH ≥ 1,000 ppmv
- △ TPH not sampled
- Primary Zone location
- Estimated extent of residual LNAPL

SVM probes

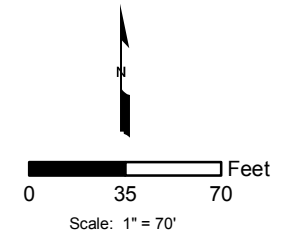
- TPH not detected
- TPH > ND and TPH < 10 ppmv
- TPH ≥ 10 ppmv and TPH < 30 ppmv
- TPH ≥ 30 ppmv and TPH < 100 ppmv
- TPH ≥ 100 ppmv and TPH < 300 ppmv
- TPH ≥ 300 ppmv and TPH < 1,000 ppmv
- TPH ≥ 1,000 ppmv
- TPH not sampled
- Primary Zone location
- - - Zone boundary

NOTES

- Analytical results expressed in parts per million by volume (ppmv).
- If parameter is detected at multiple depths in one boring, only the highest concentration is displayed.
- TPH = total petroleum hydrocarbons.
- LNAPL = light non-aqueous phase liquid.
- NS = not sampled.

NORTHWEST ZONE

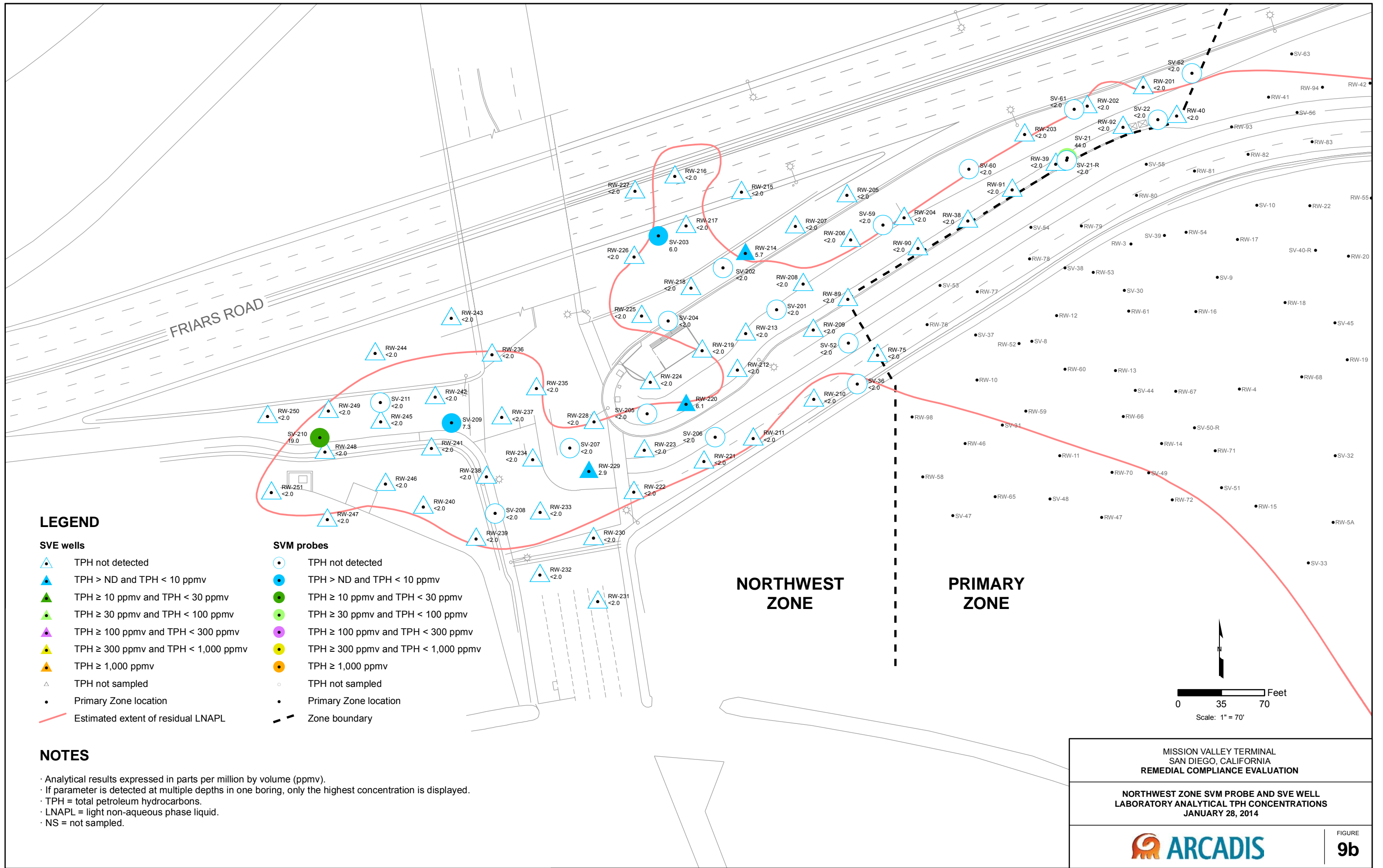
PRIMARY ZONE

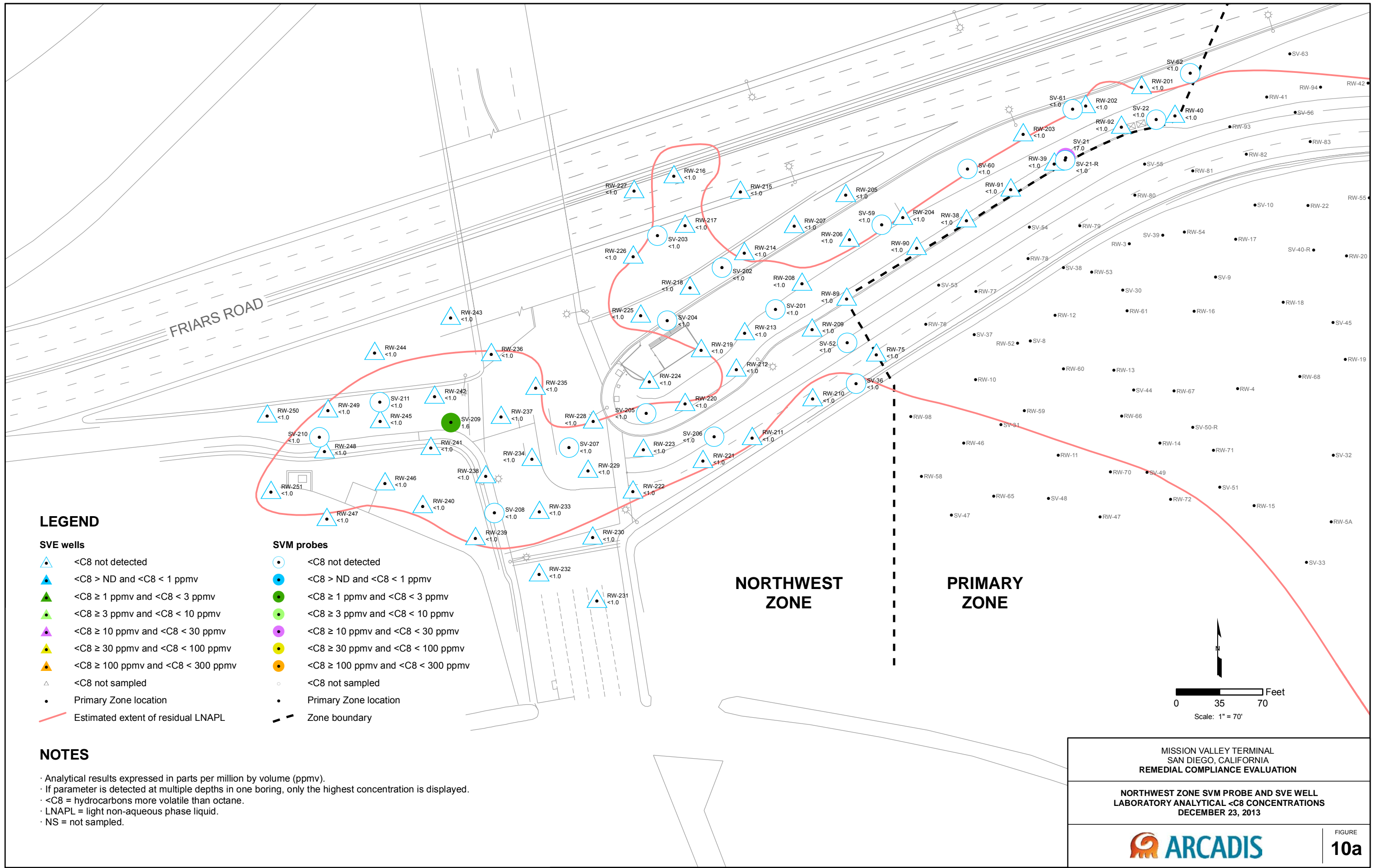


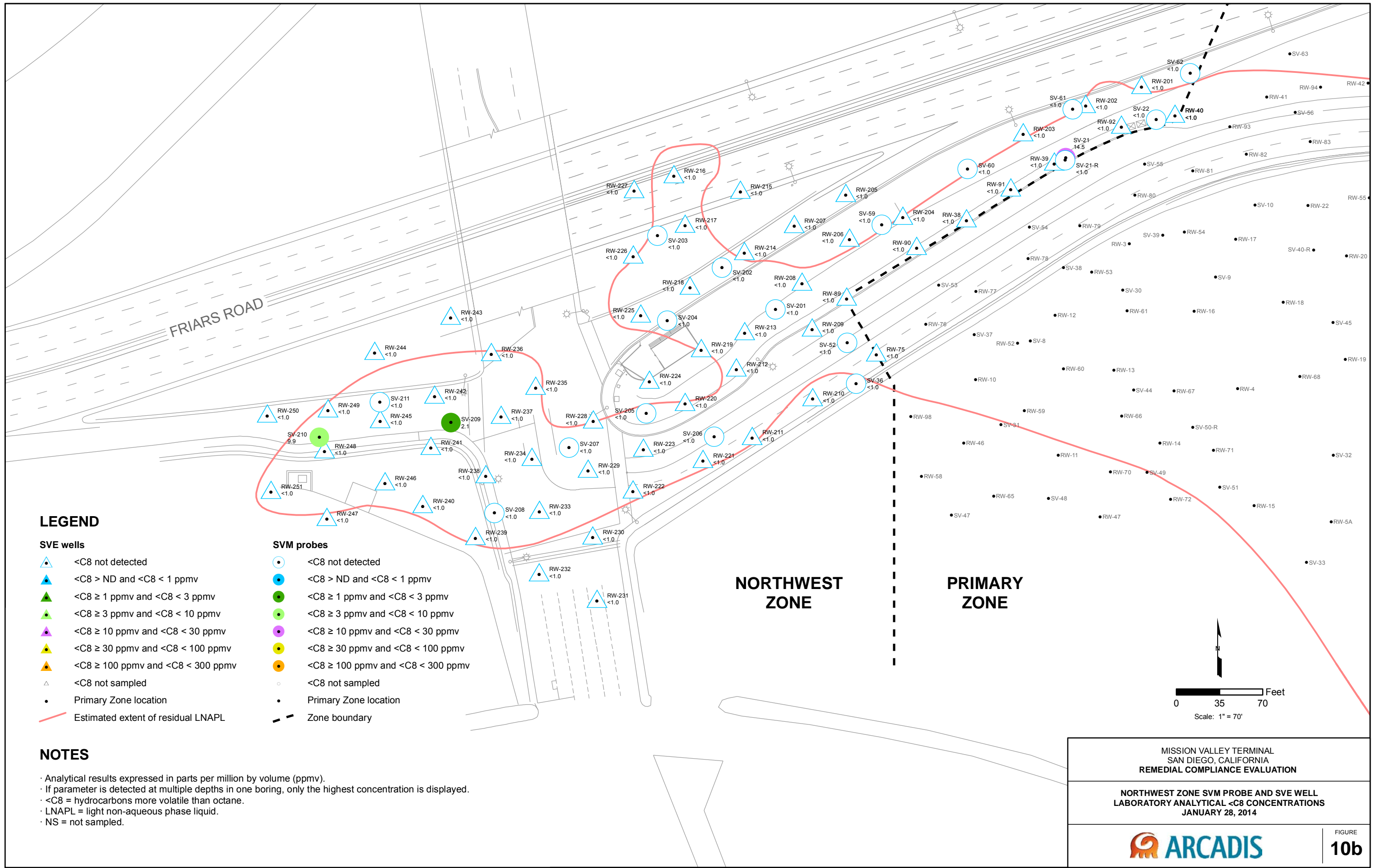
MISSION VALLEY TERMINAL
SAN DIEGO, CALIFORNIA
REMEDIAL COMPLIANCE EVALUATION

**NORTHWEST ZONE SVM PROBE AND SVE WELL
LABORATORY ANALYTICAL TPH CONCENTRATIONS
DECEMBER 23, 2013**

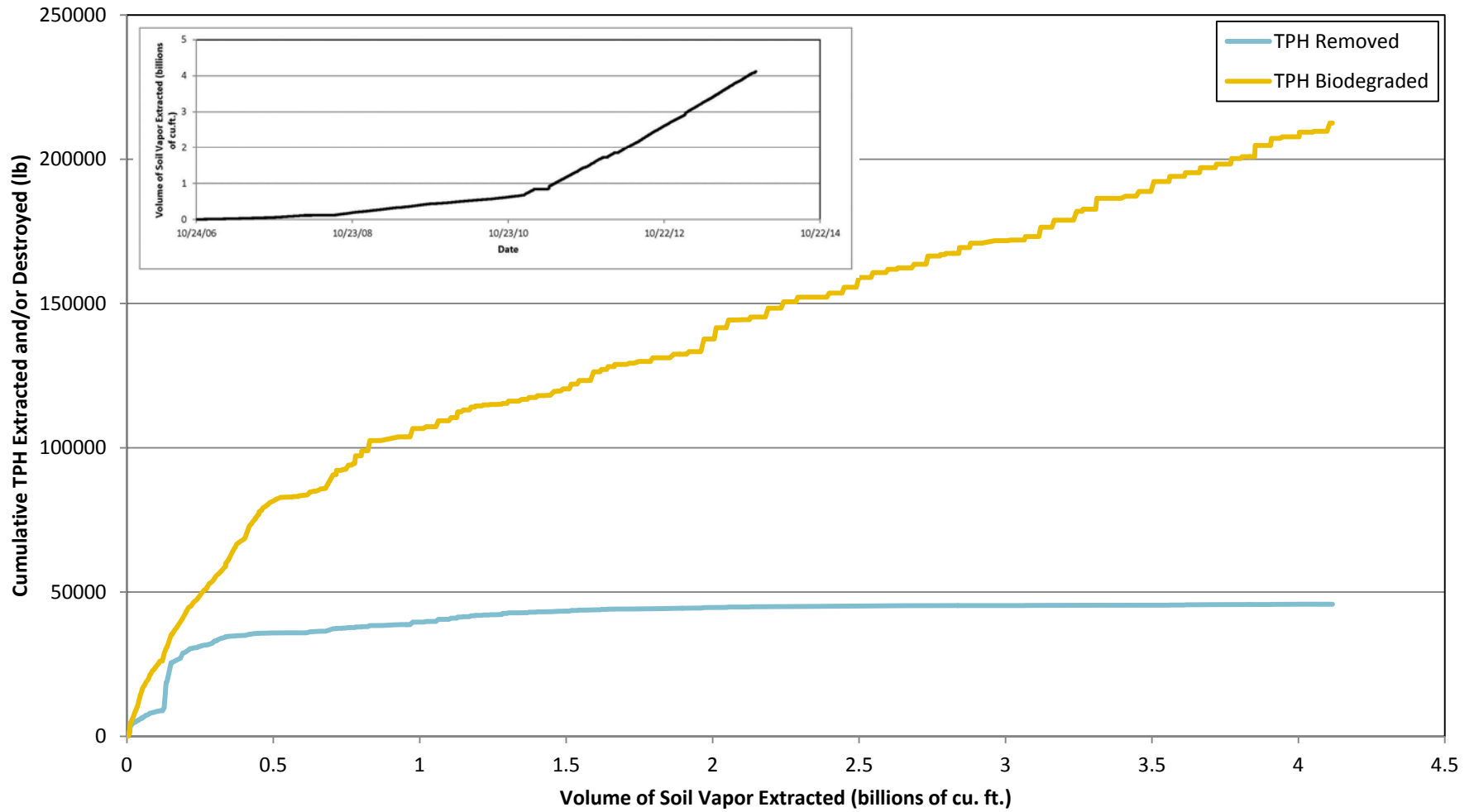
FIGURE
9a







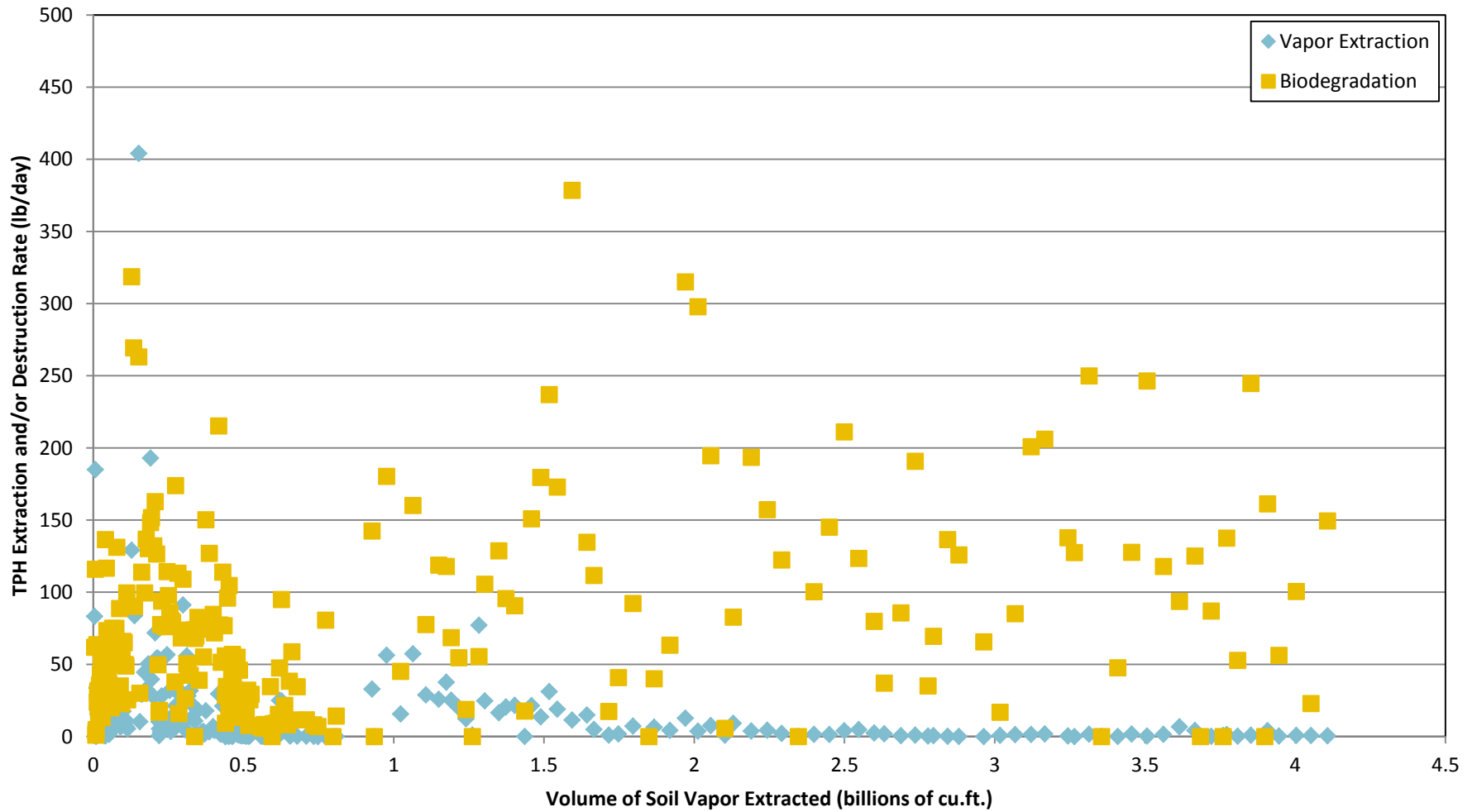
Cumulative TPH Extracted vs. Volume of Soil Vapor Extracted



Mission Valley Terminal
San Diego, California
CM010143.0159

Figure 11

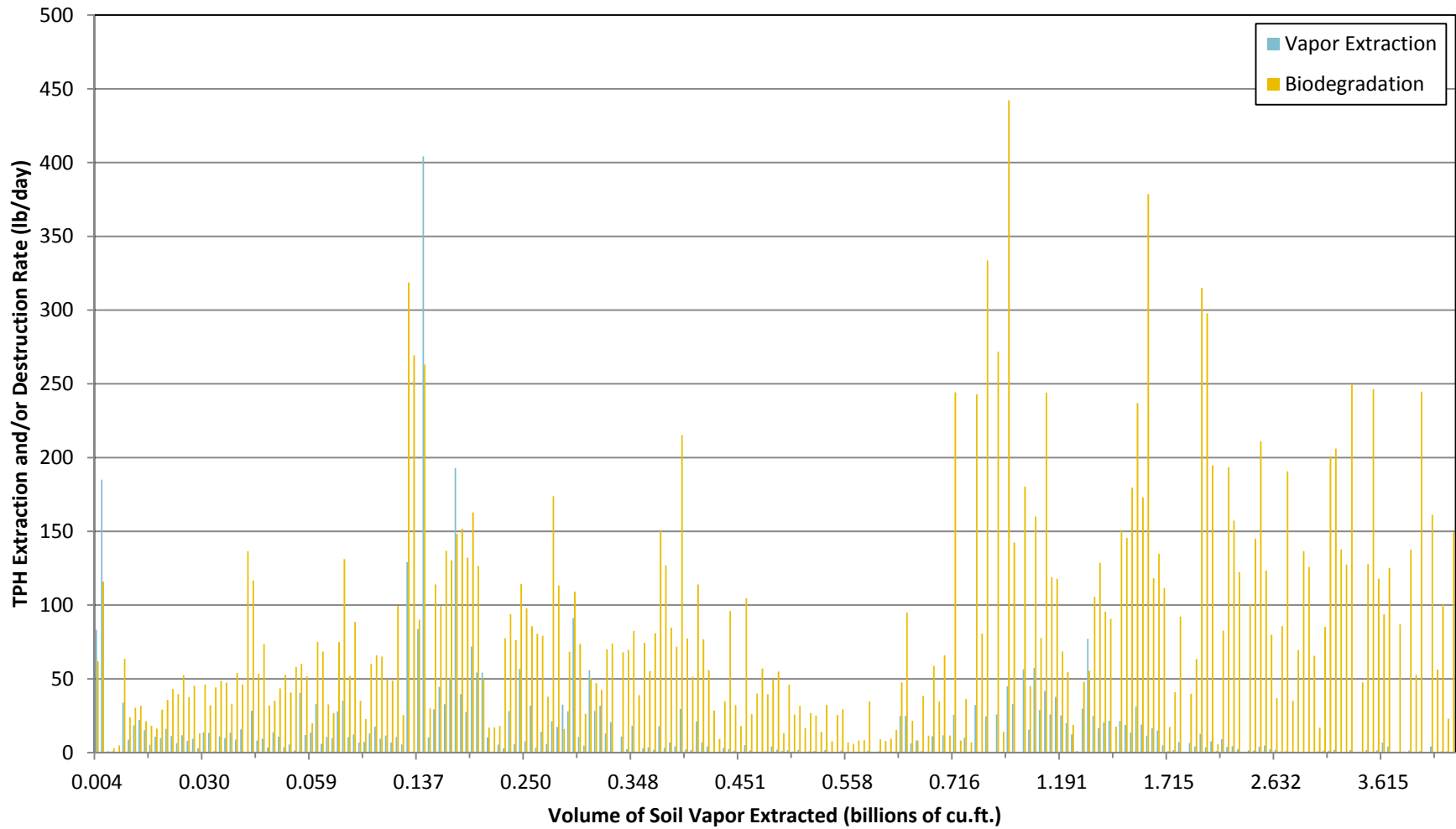
TPH Extraction Rate vs. Volume of Soil Vapor Extracted



Mission Valley Terminal
San Diego, California
CM010143.0159

Figure 12

Histogram of TPH Extraction Rate vs. Volume of Soil Vapor Extracted



Mission Valley Terminal
San Diego, California
CM010143.0159

Figure 13



SFPP, L.P.
Operating Partnership

January 30, 2015

Mr. Sean McClain
California Regional Water Quality Control Board
San Diego Region
2375 Northside Drive, Suite 100
San Diego, California 92108-2700

Subject: Off-Terminal Groundwater Monitoring Report, Fourth Quarter of 2014
Mission Valley Terminal, 9950 and 9966 San Diego Mission Road
San Diego, California; (TSMC:40-0054)

Dear Mr. McClain:

The attached report has been prepared by ARCADIS U.S., Inc. on behalf of SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. and documents groundwater monitoring activities for the Off-Terminal area of the Mission Valley Terminal in the fourth quarter of 2014.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiring of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Please contact me at 714-560-4775 if you have any questions or require additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Scott E. Martin', is written over a white background.

Scott E. Martin, P.G.
Manager, EHS-Remediation

Appendix B-5

Off-Terminal Groundwater Monitoring Report, Fourth Quarter 2014, Arcadis, January 30, 2015

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Mr. Sean McClain
California Regional Water Quality Control Board
San Diego Region
2375 Northside Drive, Suite 100
San Diego, California 92108-2700

Subject:

Off-Terminal Groundwater Monitoring Report, Fourth Quarter of 2014,
Mission Valley Terminal, San Diego, California
(SL607392800:smcclain)

Dear Mr. McClain:

ARCADIS U.S., Inc., has prepared the enclosed *Off-Terminal Groundwater Monitoring Report, Fourth Quarter of 2014*, for the Mission Valley Terminal, located at 9950 and 9966 San Diego Mission Road, San Diego, California (“the Site”).

The enclosed report presents groundwater monitoring activities and results for the off-Terminal area. On-Terminal groundwater monitoring and remedial activities and vadose zone monitoring and remedial activities are reported under separate cover in the companion *Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2014* and *Vadose Zone Monitoring and Remedial Progress Report, Fourth Quarter of 2014*, respectively, which are being submitted on the same day as the enclosed report. An evaluation of all 2014 remedial compliance data for off-Terminal groundwater is reported under separate cover in the companion *Off-Terminal Groundwater Remedial Compliance Evaluation*.

This report has been prepared on behalf of SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. The report documents post-remedial groundwater confirmation monitoring, including:

- The results of groundwater monitoring and sampling activities conducted in response to Cleanup and Abatement Order No. 92-01 issued by the California Regional Water Quality Control Board, San Diego Region (RWQCB) and amended by Addendum No. 7, which was issued by the RWQCB on December 20, 2011.
- A summary of other groundwater monitoring-related activities conducted in the off-Terminal area of the Site.

ARCADIS U.S., Inc.
320 Commerce
Suite 200
Irvine
California 92602
Tel 714.730.9052
Fax 714.730.9345
www.arcadis-us.com

ENVIRONMENT

Date:

January 30, 2015

Contact:

Jennifer Rothman, P.E.

Phone:

714.730.9052

Email:

jennifer.rothman@arcadis-us.com

Our ref:

CM010143.0175

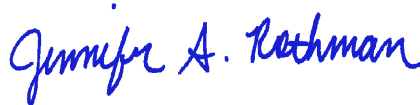
If you have questions regarding the material presented in this report, please contact either of the undersigned at 714.730.9052.

Sincerely,

ARCADIS U.S., Inc.



C. Fredrik (Rick) Ahlers, P.E.
Principal Civil Engineer



Jennifer S. Rothman, P.E.
Principal Engineer

Enclosure

Copies:

Scott Martin, KMEP
Nancy Van Burgel, KMEP
P. Johnson
M. Eggers, Eggers Environmental

Heather Stroud, City of San Diego
Ed Paden, Shell Oil Products (U.S.)
M. Barranco, CENCO-Powerine Oil Co.

**SFPP, L.P., an operating partnership of
Kinder Morgan Energy Partners, L.P.**

**Off-Terminal Groundwater
Monitoring Report,
Fourth Quarter of 2014**

Mission Valley Terminal, San Diego, California
(SL607392800:smcclain)

January 30, 2015



C. Fredrik Ahlers, P.E.
Principal Civil Engineer
Project Technical Director



Steven C. Beadle, Ph.D., P.G., C.H.G., C.E.G., P.E.
Senior Geologist

**Off-Terminal Groundwater
Monitoring Report,
Fourth Quarter of 2014**

Mission Valley Terminal
San Diego, California

Prepared for:
SFPP, L.P., an operating partnership of
Kinder Morgan Energy Partners, L.P.

Prepared by:
ARCADIS U.S., Inc.
320 Commerce
Suite 200
Irvine
California 92602
Tel 714.730.9052
Fax 714.730.9345

Our Ref.:
CM010143.0175

Date:
January 30, 2015

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6	Off-Terminal Dissolved-Phase MTBE Isoconcentration Map and Well Section (A-A') – October-November 2014
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A	Off-Terminal Groundwater Monitoring Field Data Sheets and Protocols
B	Off-Terminal Groundwater Quality Sampling Laboratory Reports and Chain-of-Custody Forms

- C Graphs of TOC, Alkalinity, Sulfate, Nitrate, and Iron vs. Time, and Graphs of Benzene, MTBE, TBA, and Groundwater Elevation vs. Time for Selected Off-Terminal Groundwater Monitoring Wells
- D Off-Terminal Groundwater Extraction Well Field Sheets, Laboratory Reports, and Chain-of-Custody Forms
- E Historical Off-Terminal Groundwater Monitoring Results

Acronyms and Abbreviations

AD	deep alluvium
Alpha	Alpha Analytical, Inc.
AM	middle alluvium
ARCADIS	ARCADIS U.S., Inc.
AS	shallow alluvium
Blaine Tech	Blaine Tech Services, Inc.
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CaCO ₃	calcium carbonate
CAO	Cleanup and Abatement Order
CDPH	California Department of Public Health
DIPE	di-isopropyl ether
DO	dissolved oxygen
DS	duplicate groundwater samples
ETBE	ethyl tertiary butyl ether
Fe ²⁺	ferrous iron
FS	shallow Friars Formation
ft	feet
GWE	groundwater extraction
Kinder Morgan	Kinder Morgan Energy Partners, L.P.
LNAPL	light non-aqueous phase liquid
µg/L	micrograms per liter
mg/L	milligrams per liter
MCL	maximum contaminant level
MRP	Monitoring and Reporting Program
MTBE	methyl tertiary-butyl ether
NO ₃	nitrate
ORP	oxidation-reduction potential
PB	equipment pump blanks

QA/QC	quality assurance/quality control
RPD	relative percent difference
RWQCB	California Regional Water Quality Control Board, San Diego Region
Site	Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California
SO ₄	sulfate
Stadium	Qualcomm Stadium
TAME	tertiary amyl methyl ether
TB	trip blanks
TBA	tertiary-butyl alcohol
Terminal	Mission Valley Terminal
TOC	total organic carbon
TPH	total petroleum hydrocarbons
TPHd	total petroleum hydrocarbons as diesel
TPHg	total petroleum hydrocarbons as gasoline
USEPA	U.S. Environmental Protection Agency

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1. Executive Summary

This report documents the groundwater monitoring activities conducted during the fourth quarter of 2014 in the off-Terminal area to the southwest of the Mission Valley Terminal (“the Terminal”) located at 9950 and 9966 San Diego Mission Road, San Diego, California (“the Site”; Figures 1 and 2). A quarterly groundwater monitoring and sampling event was conducted in the off-Terminal area during the fourth quarter of 2014.

Active remediation in the distal off-Terminal area was discontinued at the end of 2013, and groundwater extraction at proximal wells was discontinued during the first quarter of 2014. Groundwater compliance monitoring was subsequently conducted on a quarterly basis during 2014. Specific findings of the fourth quarter 2014 groundwater monitoring and sampling event include the following:

- Groundwater elevations in the Qualcomm Stadium (“Stadium”) area have generally risen since the shutdown of the off-Terminal groundwater extraction (GWE) wells in the first quarter of 2014 (Figure 3B). In October/November 2014, there was still an area of slightly depressed groundwater elevations in the Stadium area, which generally coincided with the locations of the formerly operational off-Terminal GWE wells. In October/November 2014, there was also a groundwater depression in the northeastern part of the off-Terminal area, near San Diego Mission Road, associated with currently operational on-Terminal GWE wells RW-35 and RW-36 (Figure 3A). The operation of the on-Terminal GWE wells is documented under separate cover in the companion *Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2014*.
- There was almost no evidence of total petroleum hydrocarbons (TPH) as gasoline (TPHg) or TPH as diesel (TPHd) in the 151 off-Terminal wells monitored during the fourth quarter of 2014 (Figure 4). TPHd was reported in three wells at concentrations close to the laboratory reporting limit. These detections were qualified by the laboratory as containing “additional compounds uncharacteristic of common fuels and lubricants”; they may not be related to historical hydrocarbon releases at the Terminal.
- There was almost no evidence of benzene, toluene, ethylbenzene, and total xylenes (BTEX) in the 151 off-Terminal wells monitored during the fourth quarter of 2014 (Figure 4). Toluene was reported in one well, at a concentration below the applicable maximum contaminant level (MCL). Benzene was reported in one well at a concentration slightly above the applicable MCL; however, no hydrocarbons were observed in a second well that is directly adjacent to the affected well.

- Methyl tertiary-butyl ether (MTBE) was not observed at concentrations above the primary MCL in the 151 off-Terminal wells monitored during the fourth quarter of 2014. MTBE was not observed at concentrations above the secondary MCL, except for a slight exceedance at one well (Figure 6). The affected well was resampled and no MTBE was detected.
- Tertiary-butyl alcohol (TBA) was not observed in the 151 monitored off-Terminal wells at concentrations above the California Department of Public Health (CDPH) response level. TBA was observed at concentrations above the CDPH notification level in only seven 151 wells (Figure 7).
- An evaluation of all 2014 remedial compliance data for off-Terminal groundwater is reported under separate cover in the companion *Off-Terminal Groundwater Remedial Compliance Evaluation*.

2. Introduction

This *Off-Terminal Groundwater Monitoring Report, Fourth Quarter of 2014* documents the off-Terminal groundwater compliance monitoring conducted at the Site (Figures 1 and 2) during the fourth quarter of 2014. ARCADIS U.S., Inc. (ARCADIS) prepared this report on behalf of SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. (Kinder Morgan).

This report has been prepared in accordance with Cleanup and Abatement Order (CAO) No. 92-01, which was issued by the California Regional Water Quality Control Board, San Diego Region (RWQCB) on January 3, 1992 and amended on April 6, 1992, May 9, 1994, August 27, 1999, February 19, 2002, March 20, 2002, April 13, 2005, January 19, 2010, and December 20, 2011. Specifically, this report documents groundwater monitoring and sampling activities conducted in the off-Terminal portion of the Site in accordance with the Monitoring and Reporting Program (MRP) of the CAO (included as Attachment 1 of Addendum No. 5, and subsequently replaced by Addenda No. 6 and 7).

The MRP is currently defined by Addendum No. 7 to the CAO, issued on December 20, 2011. Compliance with the MRP requirements of Addendum No. 7 began as of the first quarter 2012 monitoring period.

Active remediation in the distal off-Terminal area was discontinued at the end of 2013, and groundwater extraction at proximal wells was discontinued during the first quarter of 2014 (ARCADIS 2014d). Groundwater compliance monitoring was subsequently conducted on a quarterly basis during 2014.

The off-Terminal groundwater compliance monitoring results for the first three quarters of 2014 were previously presented by ARCADIS (2014d, 2014e, 2014f); the results for the fourth quarter of 2014 are presented in this report. An evaluation of all 2014 remedial compliance data for off-Terminal groundwater is reported under separate cover in the companion *Off-Terminal Groundwater Remedial Compliance Evaluation*, dated January 30, 2015.

Active groundwater remediation currently continues in the on-Terminal area. The groundwater monitoring and remedial activities conducted in the on-Terminal area during this reporting period are reported under separate cover in the companion *Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2014*, dated January 30, 2015.

Vadose zone monitoring and remedial activities conducted in the on-Terminal area during this reporting period are reported under separate cover in the companion *Vadose Zone Monitoring and Remedial Progress Report, Fourth Quarter of 2014*, dated January 30, 2015.

3. Background

3.1 General Description

The off-Terminal area is located southwest and downgradient of the Mission Valley Terminal in San Diego, California (Figures 1 and 2). General background information about the Terminal is presented under separate cover in the companion *Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2014*.

The Terminal is located in Murphy Canyon, a narrow canyon with a roughly north-south orientation. The Terminal property extends southward to San Diego Mission Road, where Murphy Canyon opens into the larger Mission Valley, which has a roughly east-west orientation. Historical hydrocarbon releases at the Terminal (Section 3.3) have also affected downgradient properties in Mission Valley.

The off-Terminal area includes the Stadium and the surrounding parking lots, and extends southwest toward the San Diego River. Northeast of the Stadium, the off-Terminal area is approximately bounded by Friars Road, San Diego Mission Road, and Interstate 15. Southwest of the Stadium, the off-Terminal area is approximately bounded by Interstate 805 and Camino del Rio North.

The northeastern end of the off-Terminal area, adjacent to the on-Terminal area, was historically affected by light non-aqueous phase liquid (LNAPL; see Section 3.3) and is referred to as the “off-Terminal LNAPL zone.” The remainder of the off-Terminal area, to the southwest, has only been affected by dissolved-phase hydrocarbons and oxygenates, and is referred to as the “distal groundwater plume.”

3.2 Geology and Hydrogeology

The off-Terminal area is located within the Mission San Diego Hydrologic Sub Area of the Lower San Diego Hydrologic Subunit, as designated in the San Diego Basin Plan (RWQCB 1994). The primary surface water bodies in the site area are Murphy Canyon Creek (which drains Murphy Canyon) and the San Diego River (which drains Mission Valley). Murphy Canyon Creek discharges to the San Diego River, which in turn discharges into the Pacific Ocean at Mission Bay, about 5 miles west of the Site.

The off-Terminal area is located in Mission Valley (Figure 2). The valley is separated by steep slopes from the higher mesas on either side.

Surficial deposits in the off-Terminal area consist of unconsolidated Quaternary alluvium deposited in the valleys by the associated streams. The alluvial deposits in the valleys are underlain by the Eocene Friars Formation, which is a more consolidated and less permeable sandstone. The Friars Formation acts as an aquitard between the surficial alluvium and the deeper water-bearing zones that occur in fractured bedrock.

At the northeastern edge of the off-Terminal area, the Friars Formation also acts as a lateral barrier to groundwater flow. The Friars Formation crops out on the mesa slope north of Friars Road, and occurs at relatively shallow depths beneath Friars Road. Because the Friars Formation intersects the water table in the vicinity of Friars Road, it acts as a barrier to the northward movement of groundwater in this area.

Environmental investigations at the Site have focused primarily on the Quaternary alluvium. The alluvium consists of a heterogeneous mixture of sediments, ranging up to cobble size. The alluvium ranges from approximately 50 to 80 feet (ft) thick beneath the off-Terminal area in Mission Valley.

Basal gravel is commonly encountered at the contact between the Quaternary alluvium and the underlying Friars Formation in Mission Valley. The basal gravel unit is up to about 15 ft thick; it is composed mostly of sandy gravel, with cobbles up to approximately 4 inches in diameter and lenses of clayey to silty gravel.

The groundwater monitoring and extraction wells at the Site are primarily screened within the Quaternary alluvium, although a limited number of monitoring wells are screened in the underlying Friars Formation. Many of the monitoring wells are installed in clusters; the cluster wells are screened at varying depths, generally with the following designations:

- **“AS wells”** are shallow alluvial wells that are typically screened across the water table. Many of the monitoring wells at the Site were installed before the “AS” designation was introduced; these older wells are also typically screened across the water table, but lack the “AS” suffix. The term “water table well” refers to all shallow alluvial wells, both with and without the “AS” designation.
- **“AM wells”** are middle alluvial wells, typically screened near the middle of the saturated alluvium.
- **“AD wells”** are deep alluvial wells, typically screened at the base of the alluvium.
- **“FS wells”** are screened within the upper, shallow part of the Friars Formation, underlying the alluvium.

The groundwater elevations measured in AS, AM, and AD wells at individual cluster locations are generally similar. This finding suggests that there are no significant barriers to vertical groundwater movement within the alluvium, which is consistent with the apparent absence of laterally extensive fine-grained units.

GWE wells were historically operated in the off-Terminal area; the GWE wells are designated with the "RW" prefix. The GWE wells are screened in the lower part of the alluvium and, in some cases, throughout the saturated thickness of the alluvium. All off-Terminal GWE wells ceased operation in the first quarter of 2014 (ARCADIS 2014d). Off-Terminal GWE wells were purged and sampled during the fourth quarter of 2014 for groundwater compliance monitoring purposes (Section 4.2.2).

3.3 Extent of Hydrocarbons

Historically, an off-Terminal LNAPL zone existed beneath the northeastern parking lot of the Stadium. This area was affected by gasoline-range hydrocarbons associated with the Terminal. An initial remedial compliance evaluation was submitted on June 29, 2011 (ARCADIS 2011d); this report documented remedial compliance in the southern and eastern parts of the off-Terminal LNAPL zone, generally to the south of San Diego Mission Road (ARCADIS 2011d). On October 17, 2011, the RWQCB (2011b) found that remedial activities had removed LNAPL to the extent practicable from this area.

A second remedial compliance evaluation was submitted on March 28, 2014 (ARCADIS 2014c). This report demonstrated that residual LNAPL had been removed to the extent practicable from the remaining parts of the off-Terminal LNAPL zone, generally to the north and west of San Diego Mission Road.

Historically, dissolved petroleum constituents, mainly MTBE and its degradation product TBA, migrated downgradient from the residual LNAPL zones in a general southwestern direction. The dissolved-phase plume in the southwestern (or "distal") off-Terminal area extended across the Stadium area and reached areas farther southwest near the San Diego River.

GWE wells were historically operated in the off-Terminal area. Eight "proximal" GWE wells were located in or near the off-Terminal LNAPL zone (RW-3A, RW-5A, RW-7A, RW-8, RW-48, RW-56, RW-107, and RW-108), and 13 "distal" GWE wells were located in the distal plume (RW-9, RW-49 to RW-51, RW-99 to RW-101, and RW-109 to RW-114).

Active remediation was discontinued in the distal off-Terminal area at the end of 2013, and groundwater extraction at proximal wells was discontinued during the first quarter of 2014 (ARCADIS 2014d). Groundwater compliance monitoring was subsequently conducted on a



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quarterly basis during 2014. The off-Terminal groundwater compliance monitoring results for the first three quarters of 2014 were previously presented by ARCADIS (2014d, 2014e, 2014f); the results for the fourth quarter of 2014 are presented in this report.

4. Quarterly Groundwater Monitoring Activities

This section outlines the scope of the groundwater monitoring and sampling activities that were conducted in the off-Terminal area during the fourth quarter of 2014, in accordance with CAO No. 92-01. These activities included the following:

- Fluid level measurements in wells, including depth to groundwater and depth to free product, if present (Section 4.1)
- Groundwater sampling, using both purge and no-purge methods (Section 4.2)
- Laboratory analyses of groundwater samples (Section 4.3).

4.1 Fluid Level Measurements

4.1.1 Quarterly Fluid Level Monitoring

The scheduled fluid level monitoring program at the Site included 151 off-Terminal monitoring wells. Fluid level measurements were collected at all 151 wells during the fourth quarter of 2014 (Table 1).

All of these wells were gauged on October 27 and 28, 2014. Blaine Tech Services, Inc. (Blaine Tech) of San Jose, California, collected fluid level measurements under the direction of ARCADIS. Appendix A presents groundwater gauging field data sheets.

4.1.2 Supplemental Fluid Level Monitoring

Supplemental fluid level monitoring was conducted at the following location during the fourth quarter of 2014:

- **R-80AD.** A supplemental fluid level was measured at well R-80AD on December 4, 2014, as part of a supplemental sampling effort (Section 6.2.1).

4.2 Groundwater Sampling

Appendix A presents groundwater quality sampling field data sheets and sampling protocols from Blaine Tech. Appendix B includes chain-of-custody forms and laboratory reports for groundwater samples collected and analyzed during this monitoring period.

4.2.1 Quarterly Monitoring Well Sampling

The scheduled groundwater sampling program for the fourth quarter of 2014 included all 151 off-Terminal monitoring wells. Under the MRP, all off-Terminal monitoring wells are sampled annually in the fourth quarter.

Sampling was conducted at all of the 151 monitoring wells from October 28 to November 12, 2014 (Tables 2 and 4, Appendix E). Blaine Tech purged and sampled the monitoring wells under the direction of ARCADIS.

“No-purge” groundwater samples were collected from monitoring wells that met the RWQCB’s “no-purge” policy requirements established for the San Diego region. According to this policy, well purging is not required before sampling if the groundwater surface intersects the screened interval of the well and if no measurable LNAPL is present in the well casing.

Wells were purged before sampling if the screened interval was completely below the groundwater surface (Appendix A). These wells were purged of at least three casing volumes, or until dry. Field parameters, including temperature, pH, and conductivity, were monitored during purging; purging continued until these parameters were stable, or until a maximum of five casing volumes had been removed. All purged groundwater was discharged to the Terminal’s on-site groundwater treatment plant.

Field measurements of oxidation-reduction potential (ORP), dissolved oxygen (DO), and ferrous iron (Fe^{2+}) were also collected during the well sampling process. ORP and DO were measured using field meters; ferrous iron was measured using a Hach IR-18C field kit. These measurements are shown on the field logs (Appendix A), in Tables 2 and 4, and in Appendix E.

4.2.2 Quarterly Groundwater Extraction Well Sampling

The off-Terminal GWE wells were shut down at the end of 2013 or during the first quarter of 2014. Quarterly off-Terminal GWE sampling is continuing for compliance monitoring purposes. The 21 off-Terminal GWE wells were sampled in November 2014; these wells were purged prior to sampling by Blaine Tech, using a portable submersible pump.

4.2.3 Supplemental Sampling

Supplemental sampling was conducted at the following location during the fourth quarter of 2014:

- **R-80AD.** Supplemental sampling was conducted at well R-80AD on December 4, 2014. This well was resampled to evaluate an anomalous detection of MTBE that was reported during the regular quarterly sampling (Section 6.2.1).

4.2.4 QA/QC Samples

Additional samples were collected for quality assurance/quality control (QA/QC) purposes during the fourth quarter of 2014. The QA/QC samples for the quarterly sampling included 14 duplicate groundwater samples (designated with the “DS” prefix), 12 trip blanks (designated with the “TB” prefix), and 21 equipment pump blanks (designated with the “PB” prefix).

An evaluation of the QA/QC results, including both the quarterly and supplemental QA/QC samples, is included in Section 6.3.

4.3 Laboratory Analyses

Groundwater analytical results for the fourth quarter of 2014 are discussed in Section 6 and summarized in Table 2. Table 4 presents historical groundwater analytical results for the past 12 quarters. Appendix B includes laboratory reports for the monitoring period. Complete historical analytical data, to the extent that records are available, are presented in Appendix E.

4.3.1 Quarterly Hydrocarbon and Oxygenate Analyses

All quarterly monitoring well samples (151 total) and associated QA/QC samples (47 total) were analyzed for hydrocarbons and oxygenates, including the following:

- TPHg by U.S. Environmental Protection Agency (USEPA) Method 8015M
- TPHd by USEPA Method 8015M
- BTEX by USEPA Method 8260B
- MTBE by USEPA Method 8260B
- TBA by USEPA Method 8260B
- Di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), and tertiary amyl methyl ether (TAME) by USEPA Method 8260B.

TPHg, TPHd, and BTEX are collectively described as “hydrocarbons” in this report, while MTBE, TBA, DIPE, ETBE, and TAME are collectively described as “oxygenates.”

The monitoring well samples were shipped via overnight delivery to Alpha Analytical, Inc. (Alpha) of Sparks, Nevada, for analysis. Alpha is certified by the CDPH for all analytical methods listed above.

The quarterly GWE well samples (21 total) were also analyzed for BTEX and oxygenates, using the methods listed above. The GWE well sample analyses were conducted by TestAmerica of Irvine, California, a CDPH-certified analytical laboratory.

4.3.2 Quarterly Wet Chemistry Analyses

For the fourth quarter 2014 sampling event, wet chemistry analyses were conducted on most of the off-Terminal monitoring well samples and all of the off-Terminal GWE well samples. A total of 113 monitoring well samples and 21 GWE well samples were analyzed for wet chemistry by Alpha, including the following:

- Total alkalinity (as calcium carbonate [CaCO₃]) by SM2320B
- Total organic carbon (TOC) by USEPA Method SW9060/SM-5310C
- Methane by modified Method RSK-175 GC/FID
- Ferrous iron (Fe²⁺) by Standard Method 3500-Fe B
- Nitrate (NO₃) by USEPA Method 300.0
- Sulfate (SO₄) by USEPA Method 300.0.

4.3.3 Supplemental Analyses at Well R-80AD

Supplemental sampling was conducted at well R-80AD on December 4, 2014 (Section 4.2.3). A groundwater sample collected from well R-80AD and an associated trip blank were analyzed for hydrocarbons and oxygenates using the methods outlined above.

5. Piezometric Results

Table 1 summarizes groundwater elevations for the quarterly monitoring conducted during the fourth quarter of 2014. Table 3 summarizes quarterly piezometric data for the past three years.

Figure 3A maps water table elevation contours in the off-Terminal area. Figure 3B presents representative hydrographs for selected water table (AS interval) wells. Historically, groundwater head contours interpreted for the AM and AD intervals have differed only minimally from the interpreted water table elevation contours (Section 3.2).

In general, groundwater elevations decreased from northeast to southwest across the off-Terminal area. Groundwater elevations in the Stadium area have generally risen since the shutdown of the off-Terminal GWE wells in the first quarter of 2014 (Figure 3B). In October and November 2014, there was still an area of slightly depressed groundwater elevations in the Stadium area, which generally coincided with the locations of the formerly operational off-Terminal GWE wells (Figure 3A).

GWE wells continue to operate in the on-Terminal area. In October and November 2014, there was a groundwater depression in the northeastern part of the off-Terminal area, near San Diego Mission Road, associated with on-Terminal GWE wells RW-35 and RW-36 (Figure 3A). The operation of the on-Terminal GWE wells is documented under separate cover in the companion *Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2014*.

6. Groundwater Analytical Results

Groundwater conditions were assessed through the quarterly groundwater sampling program (Section 4.2.1) and the GWE system monitoring program (Section 4.2.2). The combined results from these groundwater sampling programs are summarized below.

Full laboratory reports for the monitoring well samples are included in Appendix B. Full laboratory reports for the GWE well samples are included in Appendix D. Complete historical analytical data, to the extent that records are available, are presented in Appendix E.

6.1 Hydrocarbons

Table 2 summarizes fourth quarter 2014 analytical results for TPHg, TPHd, and BTEX compounds. Hydrocarbon analytical results are posted on Figure 4, and benzene analytical results are contoured on Figure 5.

Table 4 summarizes quarterly data for the past three years. Appendix C includes historical graphs of benzene concentrations in selected off-Terminal wells. Complete historical analytical data, to the extent that records are available, are presented in Appendix E.

No TPHg or TPHd was detected in the off-Terminal monitoring wells during the fourth quarter of 2014, with a few minor exceptions. Very low concentrations of TPHd were reported in wells R-28AS (0.67 milligram per liter [mg/L]), R-42AS (0.63 mg/L), and R-48AD (0.52 mg/L); these values were only slightly higher than the laboratory reporting limit (0.50 mg/L). These detections were qualified by the laboratory as containing “additional compounds uncharacteristic of common fuels and lubricants,” with possible “contributions from heavier-end hydrocarbons that elute in the DRO range” (Table 2, Appendix B).

No BTEX was detected in the off-Terminal monitoring wells during the fourth quarter of 2014, with two exceptions. A very low concentration of toluene (1.4 micrograms per liter [$\mu\text{g/L}$]) was reported at GWE well RW-107; this result is below the applicable MCL. A very low concentration of benzene (2.5 $\mu\text{g/L}$) was reported at well R-9; this result is above the applicable MCL of 1 $\mu\text{g/L}$.

Well R-9 has historically contained higher hydrocarbon concentrations than neighboring wells. For example, the R-79 well cluster, which is located only about 5 feet from well R-9, contained no detectable hydrocarbons during the fourth quarter of 2014 (Table 2, Figure 4) or other recent monitoring events (Table 4, Appendix E). The results from well R-9 may reflect conditions when this well was constructed: it was installed in 1992, when mobile LNAPL was present in the proximal

off-Terminal area. LNAPL was observed during well installation and has historically been observed in the well.

6.2 Oxygenates

Table 2 shows fourth quarter 2014 analytical results for MTBE, TBA, DIPE, ETBE, and TAME. Table 4 summarizes historical data for the past three years. Appendix C presents historical graphs of MTBE and TBA concentrations in selected wells. Complete historical analytical data, to the extent that records are available, are presented in Appendix E.

The MTBE results from alluvial wells are contoured on Figure 6. The TBA results are contoured on Figure 7. Combined MTBE and TBA results are contoured on Figure 8. The contour maps include MTBE and TBA data from the GWE wells, in addition to data from the monitoring wells. Historical GWE well analytical results for MTBE and TBA are graphed in Appendix C.

6.2.1 MTBE

All off-Terminal MTBE detections during the October/November 2014 monitoring event were below the California secondary MCL of 5 µg/L (Figure 6), with one exception. The primary sample from well R-80AD, which was collected on November 4, 2014, contained MTBE at a slightly higher concentration of 6.8 µg/L. No other hydrocarbons or oxygenates were detected in the sample.

MTBE has historically been detected in well R-80AD, but all MTBE observations at this well since August 2008 have been below the MCL (Appendix E). The well was resampled on December 4, 2014 to further evaluate the occurrence of MTBE at this location. MTBE was not detected in the December 4, 2014 sample above the reporting limit of 0.5 µg/L (Table 2), and no other hydrocarbons or oxygenates were detected.

6.2.2 TBA

TBA does not have a California or federal MCL. TBA was not observed in the 151 monitored off-Terminal wells at concentrations above the CDPH response level of 1,200 µg/L. TBA was not observed at concentrations above the CDPH notification level of 12 µg/L, except in seven of the 151 wells (Figure 7). The highest reported TBA concentration was 82 µg/L at well R-28AM.

6.2.3 Combined MTBE and TBA

The summed MTBE and TBA concentrations at each well are plotted and contoured on Figure 8. Because MTBE now only occurs at relatively low concentrations in the off-Terminal area (Section

6.2.1), the MTBE plus TBA map now primarily reflects TBA concentrations. The separate MTBE plus TBA map therefore no longer provides any value.

6.3 Quality Assurance/Quality Control

Standard field and laboratory QA/QC procedures were followed during the groundwater sampling event for the fourth quarter of 2014. The QA/QC results for the fourth quarter of 2014 indicate no major deviations from acceptable standards, and, therefore, the laboratory results are acceptable for evaluation of groundwater conditions.

No analytes were reported in the 12 trip blanks or the 21 equipment pump blanks collected during the October/November 2014 quarterly sampling event (Table 2). No analytes were reported in the trip blank associated with the supplemental December 2014 sampling (Section 4.3.3). Results from all of the 14 duplicate samples were similar to the associated primary samples; the relative percent differences (RPDs) for all analytes in these duplicate samples were less than 20 percent.

Duplicate groundwater samples are collected only for QA/QC purposes. Duplicate sample results are not plotted or contoured on Figures 4 through 8, and are not considered in Sections 6.1 to 6.3.

7. Evaluation of Remedial Compliance for Off-Terminal Groundwater

An evaluation of remedial compliance for off-Terminal groundwater is reported under separate cover in the companion *Off-Terminal Groundwater Remedial Compliance Evaluation*.

8. Conclusions

The findings of the groundwater monitoring and sampling activities conducted in the off-Terminal area during the fourth quarter of 2014 are summarized below:

- Active remediation in the distal off-Terminal area was discontinued at the end of 2013, and groundwater extraction at proximal wells was discontinued during the first quarter of 2014. Groundwater compliance monitoring was subsequently conducted on a quarterly basis during 2014.
- Groundwater elevations in the Stadium area have generally risen since the shutdown of the off-Terminal GWE wells in the first quarter of 2014 (Figure 3B). In October and November 2014, there was still an area of slightly depressed groundwater elevations in the Stadium area, which generally coincided with the locations of the formerly operational off-Terminal GWE wells. There was also a groundwater depression in the northeastern part of the off-Terminal area, near San Diego Mission Road, associated with currently operational on-Terminal GWE wells RW-35 and RW-36 (Figure 3A).
- There was almost no evidence of TPHg, TPHd, or BTEX in the samples collected from the 151 monitored off-Terminal wells during the fourth quarter of 2014 (Figure 4). TPHd was reported in three wells at concentrations close to the laboratory reporting limit. These detections were qualified by the laboratory as containing “additional compounds uncharacteristic of common fuels and lubricants.”
- There was almost no evidence of BTEX in the samples collected from the 151 monitored off-Terminal wells during the fourth quarter of 2014 (Figure 4). Toluene was reported in one well, at a concentration below the applicable MCL. Benzene was reported in one well at a concentration slightly above the applicable MCL; however, the affected well has historically yielded hydrocarbon results that are not consistent with a well installed directly adjacent to confirm the results.
- MTBE was not observed in the 151 monitored off-Terminal wells at concentrations above the primary MCL. MTBE was not observed at concentrations above the secondary MCL, except for a slight exceedance at one well (Figure 6). The affected well was resampled and no MTBE was detected.
- TBA was not observed in the 151 monitored off-Terminal wells at concentrations above the CDPH response level. TBA was not observed at concentrations above the CDPH notification level, except in seven of the monitored wells (Figure 7).

- An evaluation of all 2014 remedial compliance data for off-Terminal groundwater is reported under separate cover in the companion *Off-Terminal Groundwater Remedial Compliance Evaluation*.
- Groundwater monitoring in the off-Terminal area has been suspended for the first quarter of 2015, pending RWQCB review of the *Off-Terminal Groundwater Remedial Compliance Evaluation* (RWQCB 2015).

9. Certification

All geologic information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by the undersigned ARCADIS California Professional Geologist.




Steven C. Beadle, Ph.D., P.G., C.HG., C.E.G., P.E.
Senior Geologist
California Professional Geologist # 6129




January 30, 2015
Date

All engineering information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by the undersigned ARCADIS California Professional Engineer.



C. Fredrik Ahlers, P.E.
Principal Civil Engineer
Project Technical Director
California Professional Engineer # C-66471



January 30, 2015
Date

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10. Limitations Statement

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by ARCADIS and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty or guarantee, express or implied, is intended or given. To the extent that ARCADIS relied upon any information prepared by other parties not under contract to ARCADIS, ARCADIS makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

Results of any investigations or testing and any findings presented in this report apply solely to conditions existing at the time when ARCADIS' investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the project site may vary from those at the locations where data were collected. ARCADIS' ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100 percent confidence in environmental investigation conclusions cannot reasonably be achieved.

ARCADIS, therefore, does not provide any guarantees, certifications or warranties regarding any conclusions regarding environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations or standards.

11. References

- ARCADIS U.S., Inc. (ARCADIS). 2010a. Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2009, Mission Valley Terminal, San Diego, California. January 28.
- ARCADIS. 2010b. Groundwater Monitoring and Remedial Progress Report, First Quarter of 2010, Mission Valley Terminal, San Diego, California. April 29.
- ARCADIS. 2010c. Groundwater Monitoring and Remedial Progress Report, Second Quarter of 2010, Mission Valley Terminal, San Diego, California. July 29.
- ARCADIS. 2010d. Groundwater Monitoring and Remedial Progress Report, Third Quarter of 2010, Mission Valley Terminal, San Diego, California. October 29.
- ARCADIS. 2011a. Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2010, Mission Valley Terminal, San Diego, California. January 28.
- ARCADIS. 2011b. Work Plan for Rebound Test, Mission Valley Terminal, San Diego, California. February 8.
- ARCADIS. 2011c. Groundwater Monitoring and Remedial Progress Report, First Quarter of 2011, Mission Valley Terminal, San Diego, California. April 29.
- ARCADIS. 2011d. Post 2010 Remedial Compliance Evaluation – Off-Terminal LNAPL Zone, Mission Valley Terminal, San Diego, California. June 29.
- ARCADIS. 2011e. Groundwater Monitoring and Remedial Progress Report, Second Quarter of 2011, Mission Valley Terminal, San Diego, California. July 29.
- ARCADIS. 2011f. Groundwater Monitoring and Remedial Progress Report, Third Quarter of 2011, Mission Valley Terminal, San Diego, California. October 28.
- ARCADIS. 2011g. Groundwater Model Update Report, Mission Valley Terminal, San Diego, California. December 9.
- ARCADIS. 2012a. Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2011, Mission Valley Terminal, San Diego, California. January 30.

ARCADIS. 2012b. Groundwater Monitoring and Remedial Progress Report, First Quarter of 2012, Mission Valley Terminal, San Diego, California. April 30.

ARCADIS. 2012c. Groundwater Monitoring and Remedial Progress Report, Second Quarter of 2012, Mission Valley Terminal, San Diego, California. July 30.

ARCADIS. 2012d. LNAPL Distribution and Lithologic Characterization Report, Northern LNAPL Zone, Mission Valley Terminal, San Diego, California. October 4.

ARCADIS. 2012e. Results of Periodic Soil Investigation, Event 8, and Additional Investigation Activities, Mission Valley Terminal, San Diego, California. October 11.

ARCADIS. 2012f. Groundwater Monitoring and Remedial Progress Report, Third Quarter of 2012, Mission Valley Terminal, San Diego, California. October 30.

ARCADIS. 2013a. Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2012, Mission Valley Terminal, San Diego, California. January 30.

ARCADIS. 2013b. Groundwater Monitoring and Remedial Progress Report, First Quarter of 2013, Mission Valley Terminal, San Diego, California. April 30.

ARCADIS. 2013c. Schedule for December 31, 2013 Off-Terminal Remedial Compliance, Mission Valley Terminal, San Diego, California. May 2.

ARCADIS. 2013d. Technical Summary Report for Time Schedule Order (TSO) No. R9-2011-0052, Mission Valley Terminal, San Diego, California. June 28.

ARCADIS. 2013e. Groundwater Monitoring and Remedial Progress Report, Second Quarter of 2013, Mission Valley Terminal, San Diego, California. July 30.

ARCADIS. 2013f. TDS Loading Mitigation Options Work Plan for Time Schedule Order No. R9-2011-0052, Mission Valley Terminal, San Diego, California. September 27.

ARCADIS. 2013g. Groundwater Monitoring and Remedial Progress Report, Third Quarter of 2013, Mission Valley Terminal, San Diego, California. October 30.

ARCADIS. 2013h. Work Plan for Installation of Three Groundwater Monitoring Wells, Mission Valley Terminal, San Diego, California. December 2.

ARCADIS. 2014a. Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2013, Mission Valley Terminal, San Diego, California. January 30.

ARCADIS. 2014b. Semiannual Status Report for Time Schedule Order (TSO) No. R9-2011-0052, Mission Valley Terminal, San Diego, California. February 14.

ARCADIS. 2014c. Remedial Compliance Evaluation – Northwest Off-Terminal LNAPL Zone, Mission Valley Terminal, San Diego, California. March 28.

ARCADIS. 2014d. Groundwater Monitoring and Remedial Progress Report, First Quarter of 2014, Mission Valley Terminal, San Diego, California. April 30.

ARCADIS. 2014e. Groundwater Monitoring and Remedial Progress Report, Second Quarter of 2014, Mission Valley Terminal, San Diego, California. July 30.

ARCADIS. 2014f. Groundwater Monitoring and Remedial Progress Report, Third Quarter of 2014, Mission Valley Terminal, San Diego, California. October 30.

ARCADIS. 2015a. Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2014, Mission Valley Terminal, San Diego, California. January 30.

ARCADIS. 2015b. Off-Terminal Groundwater Remedial Compliance Evaluation. Mission Valley Terminal, San Diego, California. January 30.

ARCADIS. 2015c. Vadose Zone Monitoring and Remedial Progress Report, Fourth Quarter of 2014, Fourth Quarter of 2014, Mission Valley Terminal, San Diego, California. January 30.

ASTM International (ASTM). ASTM D2487-00. Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

California Regional Water Quality Control Board, San Diego Region (RWQCB). 1994. Water Quality Control Plan for the San Diego Basin (with amendments effective prior to April 25, 2007). September 8. Available online at: <http://www.waterboards.ca.gov/sandiego>.

RWQCB. 2011a. Vadose Zone Monitoring Request, Mission Valley Terminal, San Diego, California. February 24.

RWQCB. 2011b. Post 2010 Remedial Compliance Evaluation Off-Terminal LNAPL Zone, Mission Valley Terminal, San Diego, California. October 17.

- RWQCB. 2013. Response to Schedule for December 31, 2013 Off Terminal Remedial Compliance, Mission Valley Terminal, San Diego, California. October 11.
- RWQCB. 2015. Response to Request for Suspension of First Quarter 2015 Groundwater Monitoring and Reporting Requirements for the Off-Terminal Area, Mission Valley Terminal, San Diego, California. January 21.
- Camp, Dresser, & McKee (CDM). 1999. Mission Valley Terminal, Corrective Action Plan. October.
- ENVIRON and LFR Levine-Fricke. 2003. Risk Assessment, Off-Site Areas – Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California. August.
- Interstate Technology and Regulatory Council (ITRC). 2009. Evaluating LNAPL Remedial Technologies for Achieving Project Goals. LNAPL-2. Washington D.C.: Interstate Technology and Regulatory Council, LNAPLs Team. Available online at: www.itrcweb.org. December.
- LFR Levine-Fricke (LFR). 2002. Groundwater Extraction Evaluation of Existing Recovery System, Mission Valley Terminal, San Diego, California. November.
- LFR. 2003. Quarterly Groundwater Monitoring Report, 1st Quarter of 2003, Mission Valley Terminal, San Diego, California. April 30.
- LFR. 2004a. Numerical Groundwater Flow and Transport Model. Mission Valley Terminal, San Diego, California. January.
- LFR. 2004b. Responses to Regional Water Quality Control Board Comments Regarding Summary Report Review, Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California; TSMC: 40-0054.02: dorsk. July 23.
- LFR. 2004c. Aerobic Microcosm Study, Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California; TSMC: 40-0054.02: dorsk. August 4.
- LFR. 2005a. Quarterly Groundwater Monitoring and Remedial Progress Report, 4th Quarter of 2004, Mission Valley Terminal, San Diego, California. January 28.
- LFR. 2005b. Quarterly Groundwater Monitoring and Remedial Progress Report, 1st Quarter of 2005, Mission Valley Terminal, San Diego, California. April.

- LFR. 2005c. Results of Additional Soil Investigation in the Off-Terminal Area, Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California. July.
- LFR. 2005d. Quarterly Groundwater Monitoring and Remedial Progress Report, 2nd Quarter of 2005, Mission Valley Terminal, San Diego, California. July 29.
- LFR. 2005e. Site Conceptual Model and On-Terminal Corrective Action Plan, Mission Valley Terminal, San Diego, California. September 8.
- LFR. 2005f. Site Conceptual Model and Off-Terminal Corrective Action Plan, Mission Valley Terminal, San Diego, California. September 8.
- LFR. 2005g. Addendum to Results of Additional Soil Investigation in the Off-Terminal Area, Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California. October.
- LFR Inc. (LFR). 2006a. Quarterly Groundwater Monitoring and Remedial Progress Report, First Quarter of 2006, Mission Valley Terminal, San Diego, California. April 28.
- LFR. 2006b. Quarterly Groundwater Monitoring and Remedial Progress Report, Third Quarter of 2006, Mission Valley Terminal, San Diego, California. October 30.
- LFR. 2007a. Quarterly Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2007, Mission Valley Terminal, San Diego, California. January 29.
- LFR. 2007b. Quarterly Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2006, Mission Valley Terminal, San Diego, California. January 30.
- LFR. 2007c. Quarterly Groundwater Monitoring and Remedial Progress Report, First Quarter of 2007, Mission Valley Terminal, San Diego, California. April 30.
- LFR. 2007d. Response to "RE: Quarterly Groundwater Monitoring and Remedial Progress Report Review, Mission Valley Terminal, San Diego" January 30, 2006 (TSMC:40-0054.02:kdorsey). June 14.
- LFR. 2007e. Response to "RE: Quarterly Groundwater Monitoring and Remedial Progress Report Review, Mission Valley Terminal, San Diego" January 30, 2006. June 14.
- LFR. 2007f. Evaluation of Natural Attenuation of MTBE and TBA in Off-Terminal Groundwater, Mission Valley Terminal, San Diego, California. July 20.

LFR. 2007g. Quarterly Groundwater Monitoring and Remedial Progress Report, Second Quarter of 2007, Mission Valley Terminal, San Diego, California. July 27.

LFR. 2007h. Quarterly Groundwater Monitoring and Remedial Progress Report, Third Quarter of 2007, Mission Valley Terminal, San Diego, California. October 29.

LFR. 2007i. Evaluation of Remedial Progress in the Off-Terminal LNAPL Zone, Mission Valley Terminal, San Diego, California. October 31.

LFR. 2008a. Quarterly Groundwater Monitoring and Remedial Progress Report, First Quarter of 2008, Mission Valley Terminal, San Diego, California. April 29.

LFR. 2008b. Temporary Shutdown of Groundwater Extraction Wells RW-8 and RW-9, Mission Valley Terminal, San Diego, California. July 24.

LFR. 2008c. Quarterly Groundwater Monitoring and Remedial Progress Report, Second Quarter of 2008, Mission Valley Terminal, San Diego, California. July 29.

LFR. 2008d. Quarterly Groundwater Monitoring and Remedial Progress Report, Third Quarter of 2008, Mission Valley Terminal, San Diego, California. July 29.

LFR. 2009a. Quarterly Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2008, Mission Valley Terminal, San Diego, California. January 29.

LFR. 2009b. Quarterly Groundwater Monitoring and Remedial Progress Report, First Quarter of 2009, Mission Valley Terminal, San Diego, California. April 29.

LFR. 2009c. Results of a Soil Vapor Survey to Assess Extent of Previously Uncharacterized LNAPL-Affected Soil in the Off-Terminal Area, Mission Valley Terminal, San Diego, California. July 24.

LFR. 2009d. Quarterly Groundwater Monitoring and Remedial Progress Report, Second Quarter of 2009, Mission Valley Terminal, San Diego, California. July 29.

LFR. 2009e. Work Plan for Installation of Groundwater Monitoring Well Clusters and Soil Sampling in the Newly Delineated Northwest Off-Terminal LNAPL Area, Mission Valley Terminal, San Diego, California. July 31.

LFR. 2009f. Work Plan for Installation of On-Terminal Groundwater Extraction Wells, Soil Vapor Extraction Wells, and Soil Vapor Monitoring Probes. September 4.

LFR. 2009g. Quarterly Groundwater Monitoring and Remedial Progress Report, Third Quarter of 2009, Mission Valley Terminal, San Diego, California. October 29.

U.S. Environmental Protection Agency (USEPA). 1994. EPA/600/R-94/123. Methods for Monitoring Pump-and-Treat Performance. June.

USEPA. 2002. Elements for Effective Management of Operating Pump and Treat Systems. Solid Waste and Emergency Response, 542-R-02-009, OSWER 9355.4-27FS. October.

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Tables

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Table 1

Off-Terminal Groundwater Monitoring Well Details and Gauging Data, Fourth Quarter of 2014

Mission Valley Terminal, San Diego, CA
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Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)
R-9	5	64.39	8.6	20.0	10/27/2014	28.95	23.37	--	--	--	41.02
R-10	5	60.90	9.0	20.0	10/27/2014	26.80	19.56	--	--	--	41.34
R-11	5	57.42	9.0	20.0	10/27/2014	29.47	15.41	--	--	--	42.01
R-12	5	64.05	9.0	20.0	10/27/2014	29.36	22.82	--	--	--	41.23
R-15	5	59.34	8.0	29.0	10/27/2014	39.10	17.93	--	--	--	41.41
R-16	4	63.48	10.0	20.0	10/28/2014	29.90	20.57	--	--	--	42.91
R-17	4	59.68	15.0	20.0	10/28/2014	34.39	20.28	--	--	--	39.40
R-18	4	55.72	7.0	20.0	10/27/2014	27.30	10.42	--	--	--	45.30
R-19	4	78.11	32.5	20.0	10/27/2014	53.33	35.62	--	--	--	42.49
R-20	4	53.19	7.0	20.0	10/27/2014	26.68	12.80	--	--	--	40.39
R-21AS	4	42.90	~5.0	20.0	10/27/2014	21.51	4.21	--	--	--	38.69
R-21AM	2	45.59	37.0	5.0	10/27/2014	41.91	7.08	--	--	--	38.51
R-21AD	2	45.63	55.0	5.0	10/27/2014	59.62	7.11	--	--	--	38.52
R-21FS	2	45.75	78.0	5.0	10/27/2014	82.88	6.04	--	--	--	39.71
R-22	4	56.56	14.0	20.0	10/27/2014	34.47	15.68	--	--	--	40.88
R-23AS	2	60.36	26.0	10.0	10/28/2014	34.03	25.37	--	--	--	34.99
R-23AM	2	60.53	44.0	5.0	10/28/2014	49.18	25.63	--	--	--	34.90
R-23AD	2	60.56	62.0	5.0	10/28/2014	66.29	25.67	--	--	--	34.89
R-23FS	2	60.56	86.0	5.0	10/28/2014	90.43	25.44	--	--	--	35.12
R-24AS	2	58.19	20.0	10.0	10/28/2014	29.58	21.74	--	--	--	36.45
R-24AM	2	59.79	43.0	5.0	10/28/2014	47.65	24.24	--	--	--	35.55
R-24AD	2	57.84	51.0	5.0	10/28/2014	54.27	22.40	--	--	--	35.44
R-24FS	2	58.25	74.0	5.0	10/28/2014	79.00	22.15	--	--	--	36.10
R-25AS	2	47.97	5.0	15.0	10/27/2014	19.17	11.02	--	--	--	36.95
R-25AM	2	47.65	44.0	5.0	10/27/2014	48.71	10.67	--	--	--	36.98
R-25FS	2	47.70	90.5	5.0	10/27/2014	95.46	10.22	--	--	--	37.48
R-26AS	2	46.00	5.0	15.0	10/27/2014	18.88	9.82	--	--	--	36.18
R-26AM	2	46.07	49.5	5.0	10/27/2014	49.00	10.44	--	--	--	35.63
R-26FS	2	46.04	90.0	5.0	10/27/2014	79.74	9.10	--	--	--	36.94
R-27AS	2	49.36	6.5	15.0	10/27/2014	20.98	11.34	--	--	--	38.02
R-27AM	2	49.36	40.0	10.0	10/27/2014	49.60	10.79	--	--	--	38.57
R-27FS	2	49.26	70.0	10.0	10/27/2014	75.60	10.62	--	--	--	38.64
R-28AS	2	52.24	10.0	15.0	10/28/2014	24.25	18.21	--	--	--	34.03
R-28AM	2	52.56	44.0	5.0	10/28/2014	49.46	18.47	--	--	--	34.09
R-28FS	2	52.30	69.5	10.0	10/28/2014	79.31	18.24	--	--	--	34.06
R-29AS	2	51.62	18.0	15.0	10/28/2014	32.64	22.79	--	--	--	28.83

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R-29AM	2	52.47	50.0	5.0	10/28/2014	54.09	23.86	--	--	--	28.61
R-29FS	2	52.58	90.0	5.0	10/28/2014	95.64	23.01	--	--	--	29.57
R-30AS	2	49.09	5.0	10.0	10/27/2014	14.50	10.71	--	--	--	38.38
R-30AD	2	49.53	32.0	5.0	10/27/2014	32.35	11.00	--	--	--	38.53
R-30FS	2	49.10	60.0	5.0	10/27/2014	59.38	10.57	--	--	--	38.53
R-31AS	2	59.64	15.0	10.0	10/28/2014	24.98	21.81	--	--	--	37.83
R-31AM	2	59.63	34.0	5.0	10/28/2014	38.77	21.77	--	--	--	37.86
R-31AD	2	59.54	49.0	5.0	10/28/2014	53.48	21.78	--	--	--	37.76
R-31FS	2	59.43	68.0	5.0	10/28/2014	72.80	19.70	--	--	--	39.73
R-32AS	2	64.34	19.5	15.0	10/27/2014	35.51	23.16	--	--	--	41.18
R-32AD	2	64.55	54.5	5.0	10/27/2014	59.32	23.42	--	--	--	41.13
R-33AS	2	64.17	18.0	15.0	10/27/2014	33.93	22.94	--	--	--	41.23
R-33AD	2	64.05	56.5	5.0	10/27/2014	62.00	22.90	--	--	--	41.15
R-34AS	2	60.13	15.0	15.0	10/27/2014	30.71	18.70	--	--	--	41.43
R-34AD	2	60.31	53.5	5.0	10/27/2014	59.71	18.88	--	--	--	41.43
R-35AS	2	59.75	14.5	15.0	10/27/2014	30.22	18.32	--	--	--	41.43
R-35AD	2	59.56	50.0	5.0	10/27/2014	55.72	18.14	--	--	--	41.42
R-36AS	2	56.99	14.0	10.0	10/27/2014	20.82	14.94	--	--	--	42.05
R-36AD	2	57.25	48.5	5.0	10/27/2014	54.47	15.20	--	--	--	42.05
R-37AS	2	58.39	11.5	15.0	10/27/2014	26.80	16.42	--	--	--	41.97
R-37AD	2	58.16	54.0	5.0	10/27/2014	59.96	16.16	--	--	--	42.00
R-38AS	2	61.86	16.5	15.0	10/27/2014	32.33	20.72	--	--	--	41.14
R-38AM	2	61.88	40.0	5.0	10/27/2014	45.69	20.80	--	--	--	41.08
R-38AD	2	62.15	57.5	5.0	10/27/2014	63.64	21.05	--	--	--	41.10
R-39AS	2	63.90	14.5	10.0	10/27/2014	25.15	22.33	--	--	--	41.57
R-39AM	2	63.84	38.5	5.0	10/27/2014	43.27	22.33	--	--	--	41.51
R-39AD	2	63.88	54.5	5.0	10/27/2014	60.29	22.29	--	--	--	41.59
R-40AS	2	67.58	25.0	15.0	10/27/2014	40.95	26.63	--	--	--	40.95
R-40AM	2	67.62	46.5	5.0	10/27/2014	52.51	26.68	--	--	--	40.94
R-40AD	2	67.51	63.0	5.0	10/27/2014	69.04	26.58	--	--	--	40.93
R-41AS	2	62.66	14.5	10.0	10/27/2014	25.22	20.31	--	--	--	42.35
R-41AD	2	62.42	30.0	5.0	10/27/2014	35.46	20.02	--	--	--	42.40
R-42AS	2	63.55	17.5	15.0	10/28/2014	33.50	23.10	--	--	--	40.45
R-42AM	2	63.30	43.5	5.0	10/28/2014	49.27	22.72	--	--	--	40.58
R-42AD	2	63.01	61.0	5.0	10/28/2014	66.90	22.46	--	--	--	40.55
R-43AS	2	68.89	25.0	15.0	10/28/2014	40.69	27.77	--	--	--	41.12

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Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)
R-43AS-R	2	68.91	30.0	15.0	10/28/2014	44.60	27.85	--	--	--	41.06
R-43AD	2	69.17	61.0	5.0	10/28/2014	66.15	27.99	--	--	--	41.18
R-44AS	2	73.11	26.0	15.0	10/28/2014	40.46	31.78	--	--	--	41.33
R-44AM	2	73.17	55.0	5.0	10/28/2014	59.98	31.87	--	--	--	41.30
R-44AD	2	73.32	70.5	5.0	10/28/2014	75.63	32.14	--	--	--	41.18
R-45AS	2	73.01	28.0	15.0	10/27/2014	44.19	32.52	--	--	--	40.49
R-45AM	2	73.40	54.0	5.0	10/27/2014	59.89	32.78	--	--	--	40.62
R-45AD	2	73.62	71.0	5.0	10/27/2014	75.37	33.00	--	--	--	40.62
R-46AS	2	75.42	30.0	15.0	10/27/2014	45.25	36.10	--	--	--	39.32
R-46AD	2	75.63	52.0	5.0	10/27/2014	56.60	35.80	--	--	--	39.83
R-46FS	2	75.59	67.0	5.0	10/27/2014	72.20	35.70	--	--	--	39.89
R-47AS	2	73.78	29.0	15.0	10/27/2014	44.23	33.67	--	--	--	40.11
R-47AM	2	74.08	55.0	5.0	10/27/2014	60.61	34.92	--	--	--	39.16
R-47AD	2	74.28	71.0	5.0	10/27/2014	76.83	34.12	--	--	--	40.16
R-48AS	2	71.39	27.0	15.0	10/28/2014	42.41	30.99	--	--	--	40.40
R-48AM	2	71.61	53.0	5.0	10/28/2014	58.76	31.10	--	--	--	40.51
R-48AD	2	71.88	69.5	5.0	10/28/2014	75.39	31.35	--	--	--	40.53
R-60AS	2	73.07	27.0	15.0	10/27/2014	40.97	30.99	--	--	--	42.08
R-60AM	2	73.38	49.0	5.0	10/27/2014	54.16	31.40	--	--	--	41.98
R-60AD	2	73.63	62.0	5.0	10/27/2014	67.18	31.80	--	--	--	41.83
R-61AS	2	59.33	11.0	15.0	10/27/2014	25.26	15.91	--	--	--	43.42
R-61AM	2	59.61	33.0	5.0	10/27/2014	37.77	16.28	--	--	--	43.33
R-61AD	2	59.90	46.0	5.0	10/27/2014	50.75	16.61	--	--	--	43.29
R-62AS	2	54.80	7.0	15.0	10/27/2014	22.42	9.76	--	--	--	45.04
R-62AM	2	54.73	32.5	5.0	10/27/2014	37.61	9.58	--	--	--	45.15
R-62AD	2	54.63	48.0	5.0	10/27/2014	52.85	9.75	--	--	--	44.88
R-63AS	2	74.21	30.0	15.0	10/27/2014	44.50	33.10	--	--	--	41.11
R-63AD	2	74.47	46.0	5.0	10/27/2014	51.10	32.90	--	--	--	41.57
R-64AS	2	75.27	29.0	15.0	10/27/2014	44.00	34.60	--	--	--	40.67
R-64AD	2	75.48	51.0	5.0	10/27/2014	56.20	35.80	--	--	--	39.68
R-64FS	2	75.24	66.0	5.0	10/27/2014	71.60	36.10	--	--	--	39.14
R-65AS	2	70.55	24.0	15.0	10/27/2014	38.80	31.03	--	--	--	39.52
R-65AD	2	70.10	47.0	5.0	10/27/2014	52.70	31.90	--	--	--	38.20
R-65FS	2	70.50	62.0	5.0	10/27/2014	66.55	31.20	--	--	--	39.30
R-66AS	2	65.93	20.0	15.0	10/27/2014	34.50	26.51	--	--	--	39.42
R-66AM	2	66.13	47.0	5.0	10/27/2014	51.90	26.51	--	--	--	39.62

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Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)
R-66AD	2	66.83	65.0	5.0	10/27/2014	70.00	27.25	--	--	--	39.58
R-66FS	2	66.89	81.0	5.0	10/27/2014	86.20	27.40	--	--	--	39.49
R-67AS	2	62.00	15.0	15.0	10/28/2014	29.51	22.58	--	--	--	39.42
R-67AM	2	62.03	44.0	5.0	10/28/2014	49.03	22.62	--	--	--	39.41
R-67AD	2	61.72	63.0	5.0	10/28/2014	66.92	22.31	--	--	--	39.41
R-67FS	2	61.95	80.0	5.0	10/28/2014	85.19	22.53	--	--	--	39.42
R-68AS	2	56.67	10.0	15.0	10/27/2014	24.62	17.27	--	--	--	39.40
R-68AM	2	56.42	38.0	5.0	10/27/2014	42.72	17.04	--	--	--	39.38
R-68AD	2	56.57	58.0	5.0	10/27/2014	62.94	17.30	--	--	--	39.27
R-68FS	2	56.38	77.0	5.0	10/27/2014	82.91	17.00	--	--	--	39.38
R-69AS	2	52.50	7.0	15.0	10/27/2014	21.61	13.17	--	--	--	39.33
R-69AM	2	52.52	40.0	5.0	10/27/2014	44.16	13.38	--	--	--	39.14
R-69AD	2	52.27	62.0	5.0	10/27/2014	66.58	12.90	--	--	--	39.37
R-69FS	2	52.72	77.0	5.0	10/27/2014	81.73	12.88	--	--	--	39.84
R-70AS	2	49.16	5.0	15.0	10/27/2014	19.81	9.21	--	--	--	39.95
R-70AM	2	49.17	33.0	5.0	10/27/2014	37.92	9.70	--	--	--	39.47
R-70AD	2	48.94	51.0	5.0	10/27/2014	55.46	9.32	--	--	--	39.62
R-70FS	2	49.10	66.0	5.0	10/27/2014	71.32	9.04	--	--	--	40.06
R-79AS	2	64.15	15.0	20.0	10/27/2014	34.49	23.37	--	--	--	40.78
R-79AM	2	64.20	45.0	5.0	10/27/2014	49.55	23.17	--	--	--	41.03
R-79AD	2	64.24	57.5	5.0	10/27/2014	62.24	23.16	--	--	--	41.08
R-80AS	2	48.57	6.0	15.0	10/27/2014	20.79	9.99	--	--	--	38.58
R-80AM	2	48.50	29.0	5.0	10/27/2014	33.84	9.91	--	--	--	38.59
R-80AD	2	48.38	42.0	5.0	10/27/2014	47.16	9.72	--	--	--	38.66
R-80AD	2	48.38	42.0	5.0	12/04/2014	47.17	8.88	--	--	--	39.50
R-81AS	2	47.95	5.0	13.0	10/27/2014	17.94	8.92	--	--	--	39.03
R-81AD	2	48.17	18.0	5.0	10/27/2014	22.48	9.04	--	--	--	39.13
R-82AS	2	46.92	6.0	15.0	10/27/2014	20.42	8.92	--	--	--	38.00
R-82AM	2	46.76	24.0	5.0	10/27/2014	28.92	8.84	--	--	--	37.92
R-82AD	2	46.98	33.0	5.0	10/27/2014	37.39	9.14	--	--	--	37.84
R-83AS	2	49.12	8.0	15.0	10/27/2014	23.30	12.62	--	--	--	36.50
R-83AM	2	48.90	32.0	5.0	10/27/2014	36.64	12.41	--	--	--	36.49
R-83AD	2	49.06	52.0	5.0	10/27/2014	57.00	12.68	--	--	--	36.38
R-84AS	2	83.00	36.0	20.0	10/28/2014	54.67	42.02	--	--	--	40.98
R-84AM	2	82.92	62.5	5.0	10/28/2014	67.27	42.60	--	--	--	40.32
R-84AD	2	82.86	73.0	5.0	10/28/2014	78.10	41.98	--	--	--	40.88

Table 1

Off-Terminal Groundwater Monitoring Well Details and Gauging Data, Fourth Quarter of 2014

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)
R-85AS	2	70.93	25.0	20.0	10/28/2014	44.51	29.89	--	--	--	41.04
R-85AM	2	70.91	54.5	5.0	10/28/2014	59.85	29.88	--	--	--	41.03
R-85AD	2	70.67	69.0	5.0	10/28/2014	74.90	29.63	--	--	--	41.04
R-86AS	2	59.00	12.0	15.5	10/27/2014	27.70	17.22	--	--	--	41.78
R-87AS	2	62.15	13.0	15.5	10/29/2014	28.72	21.08	--	--	--	41.07
RW-247	2	66.10	21.0	10.0	10/27/2014	29.15	26.20	--	--	--	39.90
T-11	4	60.35	5.0	30.0	10/27/2014	39.26	17.54	--	--	--	42.81
T-12	4	60.02	5.0	30.0	10/27/2014	39.50	16.12	--	--	--	43.90

Notes:

Top of screen depth and length of screen taken from well construction data .

Total well depth as measured this quarter .

In-Well LNAPL Specific gravity values are taken from First Quarter 2002 Groundwater Monitoring report. A value of 0.78 has been used in calculating groundwater elevation.

feet-msl = Feet above mean sea level

feet-bgs = Feet below ground surface

feet-toc = Feet from top of casing

LNAPL = Light Non-Aqueous Phase Liquid

-- = Not Available / Not Applicable

Table 2

Off-Terminal Groundwater Analytical Results, Fourth Quarter of 2014

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO ₃) mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
R-31FS	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	1.04	-22	240	1.1	<10	0.2	<0.050	<0.25	160		
R-32AS	11/04/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	-	0.53	181	-	-	-	-	-	-	-	-	
R-32AD	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.45	205	-	-	-	-	-	-	-	-	
R-33AS	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	1.07	261	310	8.4	<10	0.0	<0.050	3.5	400		
R-33AD	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.98	64	320	4.6	<10	0.0	<0.050	<0.25	270		
R-34AS	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.48	152	-	-	-	-	-	-	-	-	
R-34AD	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.36	171	-	-	-	-	-	-	-	-	
R-35AS	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.60	175	270	4.6	<10	0.0	<0.050	19	630		
R-35AD	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.74	172	350	4.2	<10	0.0	<0.050	<0.25	270		
R-36AS	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.24	198	300	4.9	<10	0.0	<0.050	8.5	530		
R-36AD	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.33	208	-	-	-	-	-	-	-	-	
R-37AS	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	1.53	185	340	5.7	<10	0.0	<0.050	3.5	320		
R-37AD	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	1.61	183	-	-	-	-	-	-	-	-	
R-38AS	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.28	213	290	4.5	<10	0.0	<0.050	<0.25	340		
R-38AM	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.56	<1.0	<1.0	<1.0	<10	-	0.29	77	310	5.1	<10	0.0	<0.050	<0.25	280		
R-38AD	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.30	11	290	5.0	<10	0.0	<0.050	<0.25	270		
R-39AS	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.59	4	-	-	-	-	-	-	-	-	
R-39AM	11/04/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	-	0.50	-33	-	-	-	-	-	-	-	-	
R-39AD	11/04/14	<1.0	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<100	-	0.39	-26	-	-	-	-	-	-	-	-	
R-40AS	11/03/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	1.2	<2.0	<2.0	<2.0	<20	-	0.41	-6	240	17	16	0.0	<0.050	2.0	250		
R-40AM	11/03/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	-	0.35	-102	47	44	<10	0.0	0.27	1.7	31		
R-40AD	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.27	-26	240	4.7	<10	0.0	<0.050	<0.25	240		
R-41AS	11/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.69	81	300	3.7	<10	0.0	<0.050	1.9	290		
R-41AD	11/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.97	106	170	43	<10	0.0	0.13	4.6	140		
R-42AS	11/03/14	<0.50	0.63 CL	<0.50	<0.50	<0.50	<0.50	1.9	<1.0	<1.0	<1.0	<10	-	0.61	-40	490	9.4	<10	1.6	0.81	<0.25	410		

Table 2

Off-Terminal Groundwater Analytical Results, Fourth Quarter of 2014

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO ₃) mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
R-61AM	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.34	-88	--	--	--	--	--	--	--	--	
R-61AD	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.29	-115	--	--	--	--	--	--	--	--	
R-62AS	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.38	127	--	--	--	--	--	--	--	--	
R-62AM	11/04/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.47	-82	--	--	--	--	--	--	--	--	
R-62AD	11/04/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.39	-102	--	--	--	--	--	--	--	--	
R-63AS	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.74	-109	360	5.2	140	3.4	8.7	<0.25	300		
R-63AD	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.89	-120	310	4.7	<10	1.4	<0.050	0.28	240		
R-64AS	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	-66	340	5.2	110	1.0	4.4	<0.25	190		
R-64AD	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.20	-54	300	4.6	<10	0.0	<0.050	0.35	210		
R-64FS	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	154	200	1.7	140	0.0	<0.050	<0.25	59		
R-64FS (DS#10)	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-64FS
R-65AS	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.16	-127	310	4.7	260	2.4	10	<0.25	210		
R-65AD	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.76	-105	280	4.4	70	1.2	1.8	<0.25	220		
R-65AD (DS#5)	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-65AD
R-65FS	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<1.0	<1.0	<1.0	<10	--	0.82	-69	300	3.1	30	1.4	0.80	<0.25	190		
R-66AS	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.63	<1.0	<1.0	<1.0	<10	--	1.02	-94	480	6.2	470	1.6	5.5	<0.25	130		
R-66AM	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.92	-115	330	4.9	<10	0.0	<0.050	0.47	220		
R-66AD	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	-112	250	4.6	<10	0.0	<0.050	0.55	230		
R-66FS	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.85	-89	170	1.9	10	0.0	<0.050	0.63	140		
R-67AS	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.0	<1.0	<1.0	<1.0	<10	--	0.25	-70	500	6.4	430	1.2	3.0	<0.25	130		
R-67AM	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	-114	260	4.7	<10	0.0	<0.050	0.50	220		
R-67AD	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.35	-114	290	4.9	<10	0.0	<0.050	0.30	250		
R-67FS	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.43	-92	150	1.1	840	0.0	<0.050	<0.25	150		
R-68AS	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.62	<1.0	<1.0	<1.0	<10	--	0.42	-21	250	3.9	52	1.6	1.7	<0.25	250		
R-68AM	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.39	-96	280	4.9	<10	0.0	<0.050	0.50	210		

Table 2

Off-Terminal Groundwater Analytical Results, Fourth Quarter of 2014

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO ₃) mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
R-82AD	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.49	-106	290	4.6	<10	0.0	<0.050	0.39	240		
R-83AS	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.23	-63	320	5.2	20	0.0	3.2	<0.25	220		
R-83AM	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.48	-91	280	4.9	<10	0.0	<0.050	<0.25	150		
R-83AD	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.36	-75	310	4.3	<10	0.0	<0.050	1.6	290		
R-84AS	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.61	-28	370	3.4	22	2.4	2.4	<0.25	560		
R-84AM	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.88	1	320	23	<10	0.04	0.81	<0.25	510		
R-84AD	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.58	94	190	32	<10	0.02	<0.050	2.4	440		
R-85AS	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<10	-	0.53	20	420	3.7	<10	0.0	<0.050	<0.25	350		
R-85AM	11/04/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	-	0.50	-10	33	15	<10	0.0	0.064	0.78	54		
R-85AD	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.37	5	250	6.5	<10	0.0	<0.050	0.55	280		
R-86AS	11/12/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	-	0.82	157	230	39	<10	0.0	0.087	3.3	520		
R-87AS	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	1.42	140	340	4.3	<10	0.0	<0.050	0.63	280		
RW-247	11/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.70	152	430	5.6	<10	0.0	<0.050	0.73	480		
T-11	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.31	140	-	-	-	-	-	-	-	-	
T-12	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	0.35	140	-	-	-	-	-	-	-	-	
T-12 (DS#14)	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	-	-	-	-	-	-	-	-	-	-	-	Duplicate of T-12
RW-3A	11/11/14	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	-	0.31	-44	310	4.6	18	0.0	<0.050	2.3	310		
RW-5A	11/06/14	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	-	0.44	129	200	13	<10	0.0	<0.050	38	390		
RW-7A	11/06/14	-	-	<0.50	<0.50	<0.50	<1.0	0.78	<0.50	<0.50	<0.50	<10	-	0.16	83	360	4.8	10	0.0	<0.050	1.1	290		
RW-8	11/05/14	-	-	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	-	0.49	-89	300	3.6	39	0.0	<0.20	<0.25	260		
RW-9	11/05/14	-	-	<0.50	<0.50	<0.50	<1.0	0.94	<0.50	<0.50	<0.50	<10	-	0.41	-60	300	4.4	31	0.4	3.2	<0.25	280		
RW-48	11/07/14	-	-	<0.50	<0.50	<0.50	<1.0	1.5	<0.50	<0.50	<0.50	<10	-	0.44	-7	360	4.1	<10	0.0	<0.050	<0.25	270		
RW-49	11/10/14	-	-	<0.50	<0.50	<0.50	<1.0	0.58	<0.50	<0.50	<0.50	<10	-	0.98	-38	430	4.5	23	0.0	0.27	0.28	250		
RW-50	11/06/14	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	11	-	0.48	-78	170	5.4	94	4.8	34	<0.25	550		
RW-51	11/06/14	-	-	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	-	0.33	-56	76	30	<10	1.6	0.075	1.3	110		

Table 2

Off-Terminal Groundwater Analytical Results, Fourth Quarter of 2014

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO ₃) mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
RW-56	11/06/14	--	--	<0.50	<0.50	<0.50	<1.0	0.67	<0.50	<0.50	<0.50	<10	--	0.35	91	260	5.5	<10	0.0	<0.050	6.0	260	
RW-99	11/11/14	--	--	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<0.50	<0.50	<10	--	0.50	-59	370	4.9	56	2.6	0.57	<0.25	280	
RW-100	11/10/14	--	--	<0.50	<0.50	<0.50	<1.0	0.53	<0.50	<0.50	<0.50	<10	--	0.89	-7	360	4.6	43	0.8	4.8	<0.25	310	
RW-101	11/11/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	1.06	-100	220	19	96	2.2	4.7	<0.25	54	
RW-107	11/07/14	--	--	<0.50	1.4	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.33	-63	430	6.5	180	1.6	0.74	<0.25	210	
RW-108	11/10/14	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	--	0.76	83	340	4.1	<10	0.0	<0.050	<0.25	310	
RW-109	11/07/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	21	--	0.36	-53	410	9.2	1,100	2.6	0.83	<0.25	260	
RW-110	11/10/14	--	--	<0.50	<0.50	<0.50	<1.0	0.67	<0.50	<0.50	<0.50	45	--	1.06	-35	420	8.4	1,600	1.2	0.28	<0.25	220	
RW-111	11/10/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	35	--	0.85	-109	340	7.7	1,700	1.2	0.34	<0.25	170	
RW-112	11/11/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.98	-100	200	21	98	1.6	1.2	<0.25	160	
RW-113	11/11/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.55	-102	330	7.5	960	0.6	0.064	<0.25	190	
RW-114	11/11/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.48	-104	280	5.5	170	2.8	7.7	<0.25	270	
Equipment Blanks																							
PB#1	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#2	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#3	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#4	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#5	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#6	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#7	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#8	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#9	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#10	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#11	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#12	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	

Table 2

Off-Terminal Groundwater Analytical Results, Fourth Quarter of 2014

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO ₃) mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
Equipment Blanks																							
PB#14	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#13	11/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#15	11/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#17	11/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#18	11/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	<0.005	--	--	--	--	--	--	--	--	--	
PB#19	11/10/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#20	11/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#21	11/12/14	<0.50	<0.050	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
PB#22	11/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
Trip Blanks																							
TB#1F	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
TB#2F	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
TB#3F	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
TB#4F	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
TB#5F	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
TB#6F	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
TB#8F	11/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
TB#10F	11/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
TB#11F	11/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	<0.005	--	--	--	--	--	--	--	--	--	
TB#12F	11/10/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
TB#13F	11/11/14	<0.50	<0.050	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
TB#14F	11/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	
TB-1	12/04/14	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	

Table 2

Off-Terminal Groundwater Analytical Results, Fourth Quarter of 2014

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Notes:

Data prior to 4/1/02 managed by TRC. Data after 4/1/02 managed by LFR. Data after 1/10/10 managed by ARCADIS.

TPH-Purgeable = Total Petroleum Hydrocarbons, Gasoline

TPH-E (Diesel) = Total Petroleum Hydrocarbons, Diesel

MTBE = Methyl tert-butyl ether

TBA = Tertiary Butyl Alcohol

TOC = Total Organic Carbon

DIPE = Diisopropyl Ether

ETBE = Ethyl tert-butyl ether

TAME = Tert-Amyl methyl ether

ORP = Oxidation Reduction Potential

µg/L = Micrograms per liter

mV = millivolts

IWG = Insufficient water for gauging

C = Reported concentration includes additional compounds uncharacteristic of common fuels and lubricants

K = Reported diesel concentration may include some undifferentiated lighter-end hydrocarbons.

L = Reported diesel concentration may include contributions from heavier-end hydrocarbons.

Z = DRO concentration may include contributions from lighter-end and heavier-end hydrocarbons that may elute in the DRO range.

* = The sample contained compounds uncharacteristic of common fuels or lubricants (i.e. biogenic material). A GC/MS library scan identified the primary peak as a high-molecular weight compound similar to a fatty acid ester.

** = Sample had varying pH levels and Alkalinity measurements between sample containers.

-- = Not Analyzed

Table 3



Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-9	5	64.39	8.6	20.0	02/14/2012	29.55	29.45/IWG	--	--	--	--	Insufficient H2O to Gauge
R-9	5	64.39	8.6	20.0	04/30/2012	29.28	29.23/IWG	--	--	--	--	Insufficient H2O to Gauge
R-9	5	64.39	8.6	20.0	08/13/2012	29.28	29.28/IWG	--	--	--	--	Well Dry
R-9	5	64.39	8.6	20.0	11/01/2012	29.29	29.22/IWG	--	--	--	--	Insufficient H2O to Gauge
R-9	5	64.39	8.6	20.0	02/07/2013	29.20	28.84/IWG	--	--	--	--	Insufficient H2O to Gauge
R-9	5	64.39	8.6	20.0	05/02/2013	29.25	29.10/IWG	--	--	--	--	Insufficient H2O to Gauge
R-9	5	64.39	8.6	20.0	07/29/2013	29.21	29.21/IWG	--	--	--	--	Well Dry
R-9	5	64.39	8.6	20.0	10/28/2013	29.23	29.23/IWG	--	--	--	--	Well Dry
R-9	5	64.39	8.6	20.0	02/14/2014	29.02	29.02/IWG	--	--	--	--	Well Dry
R-9	5	64.39	8.6	20.0	05/05/2014	29.18	27.58	--	--	--	36.81	
R-9	5	64.39	8.6	20.0	07/28/2014	29.40	25.40	--	--	--	38.99	
R-9	5	64.39	8.6	20.0	10/27/2014	28.95	23.37	--	--	--	41.02	
R-10	5	60.90	9.0	20.0	02/14/2012	27.12	25.75	--	--	--	35.15	Odor
R-10	5	60.90	9.0	20.0	04/30/2012	26.72	25.70	--	--	--	35.20	
R-10	5	60.90	9.0	20.0	08/13/2012	26.83	25.80	--	--	--	35.10	
R-10	5	60.90	9.0	20.0	11/07/2012	26.80	26.80/IWG	--	--	--	--	Well Dry
R-10	5	60.90	9.0	20.0	02/06/2013	26.71	26.44/IWG	--	--	--	--	Insufficient H2O to Gauge
R-10	5	60.90	9.0	20.0	05/02/2013	26.78	26.78/IWG	--	--	--	--	Well Dry
R-10	5	60.90	9.0	20.0	07/29/2013	26.80	26.80/IWG	--	--	--	--	Well Dry
R-10	5	60.90	9.0	20.0	10/28/2013	26.74	26.74/IWG	--	--	--	--	Well Dry
R-10	5	60.90	9.0	20.0	02/14/2014	26.77	26.77/IWG	--	--	--	--	Well Dry
R-10	5	60.90	9.0	20.0	05/05/2014	26.75	23.23	--	--	--	37.67	
R-10	5	60.90	9.0	20.0	07/28/2014	26.82	21.42	--	--	--	39.48	
R-10	5	60.90	9.0	20.0	10/27/2014	26.80	19.56	--	--	--	41.34	
R-11	5	57.42	9.0	20.0	02/14/2012	28.98	21.60	--	--	--	35.82	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-11	5	57.42	9.0	20.0	05/04/2012	28.86	21.32	--	--	--	36.10	
R-11	5	57.42	9.0	20.0	08/16/2012	28.46	21.62	--	--	--	35.80	
R-11	5	57.42	9.0	20.0	11/01/2012	28.41	22.45	--	--	--	34.97	
R-11	5	57.42	9.0	20.0	02/07/2013	28.58	23.01	--	--	--	34.41	
R-11	5	57.42	9.0	20.0	05/03/2013	28.50	23.70	--	--	--	33.72	
R-11	5	57.42	9.0	20.0	07/29/2013	28.58	24.25	--	--	--	33.17	
R-11	5	57.42	9.0	20.0	10/28/2013	28.60	24.74	--	--	--	32.68	
R-11	5	57.42	9.0	20.0	02/14/2014	28.54	24.24	--	--	--	33.18	
R-11	5	57.42	9.0	20.0	05/05/2014	28.55	19.34	--	--	--	38.08	
R-11	5	57.42	9.0	20.0	07/28/2014	28.56	17.47	--	--	--	39.95	
R-11	5	57.42	9.0	20.0	10/27/2014	29.47	15.41	--	--	--	42.01	
R-12	5	64.05	9.0	20.0	02/14/2012	29.74	29.74/IWG	--	--	--	--	Well Dry
R-12	5	64.05	9.0	20.0	04/30/2012	29.38	29.38/IWG	--	--	--	--	Well Dry
R-12	5	64.05	9.0	20.0	08/13/2012	29.30	29.30/IWG	--	--	--	--	Well Dry
R-12	5	64.05	9.0	20.0	11/07/2012	29.31	29.31/IWG	--	--	--	--	Well Dry
R-12	5	64.05	9.0	20.0	02/07/2013	29.23	29.23/IWG	--	--	--	--	Well Dry
R-12	5	64.05	9.0	20.0	05/06/2013	29.25	29.25/IWG	--	--	--	--	Well Dry
R-12	5	64.05	9.0	20.0	07/29/2013	29.32	29.32/IWG	--	--	--	--	Well Dry
R-12	5	64.05	9.0	20.0	10/28/2013	29.32	29.32/IWG	--	--	--	--	Well Dry
R-12	5	64.05	9.0	20.0	02/14/2014	29.32	29.32/IWG	--	--	--	--	Well Dry
R-12	5	64.05	9.0	20.0	05/05/2014	29.29	27.10	--	--	--	36.95	
R-12	5	64.05	9.0	20.0	07/28/2014	29.28	24.75	--	--	--	39.30	
R-12	5	64.05	9.0	20.0	10/27/2014	29.36	22.82	--	--	--	41.23	
R-15	5	59.34	8.0	29.0	02/14/2012	39.60	24.80	--	--	--	34.54	
R-15	5	59.34	8.0	29.0	04/30/2012	39.30	25.06	--	--	--	34.28	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-15	5	59.34	8.0	29.0	08/13/2012	39.08	25.20	--	--	--	34.14	
R-15	5	59.34	8.0	29.0	11/01/2012	39.20	26.32	--	--	--	33.02	
R-15	5	59.34	8.0	29.0	02/07/2013	38.95	26.64	--	--	--	32.70	
R-15	5	59.34	8.0	29.0	05/06/2013	39.29	27.60	--	--	--	31.74	
R-15	5	59.34	8.0	29.0	07/29/2013	39.12	28.72	--	--	--	30.62	
R-15	5	59.34	8.0	29.0	10/28/2013	39.22	29.18	--	--	--	30.16	
R-15	5	59.34	8.0	29.0	02/14/2014	39.15	27.51	--	--	--	31.83	
R-15	5	59.34	8.0	29.0	05/05/2014	39.12	21.93	--	--	--	37.41	
R-15	5	59.34	8.0	29.0	07/28/2014	38.87	19.82	--	--	--	39.52	
R-15	5	59.34	8.0	29.0	10/27/2014	39.10	17.93	--	--	--	41.41	
R-16	4	63.48	10.0	20.0	02/16/2012	30.22	24.22	--	--	--	39.26	
R-16	4	63.48	10.0	20.0	04/30/2012	29.90	23.93	--	--	--	39.55	
R-16	4	63.48	10.0	20.0	08/17/2012	29.92	24.22	--	--	--	39.26	
R-16	4	63.48	10.0	20.0	11/05/2012	29.85	24.75	--	--	--	38.73	
R-16	4	63.48	10.0	20.0	02/22/2013	29.82	25.30	--	--	--	38.18	
R-16	4	63.48	10.0	20.0	05/02/2013	29.89	25.44	--	--	--	38.04	
R-16	4	63.48	10.0	20.0	07/29/2013	29.92	25.94	--	--	--	37.54	
R-16	4	63.48	10.0	20.0	10/28/2013	29.94	26.30	--	--	--	37.18	
R-16	4	63.48	10.0	20.0	02/14/2014	29.83	26.51	--	--	--	36.97	
R-16	4	63.48	10.0	20.0	05/05/2014	29.87	23.75	--	--	--	39.73	
R-16	4	63.48	10.0	20.0	07/28/2014	29.91	22.36	--	--	--	41.12	
R-16	4	63.48	10.0	20.0	10/28/2014	29.90	20.57	--	--	--	42.91	
R-17	4	59.68	15.0	20.0	02/07/2012	34.49	21.70	--	--	--	37.98	
R-17	4	59.68	15.0	20.0	04/30/2012	34.48	22.14	--	--	--	37.54	
R-17	4	59.68	15.0	20.0	08/07/2012	34.49	23.92	--	--	--	35.76	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-17	4	59.68	15.0	20.0	11/05/2012	34.44	24.53	--	--	--	35.15	
R-17	4	59.68	15.0	20.0	02/20/2013	34.39	25.75	--	--	--	33.93	
R-17	4	59.68	15.0	20.0	05/01/2013	34.42	27.39	--	--	--	32.29	
R-17	4	59.68	15.0	20.0	07/29/2013	34.41	28.36	--	--	--	31.32	
R-17	4	59.68	15.0	20.0	10/29/2013	34.40	29.44	--	--	--	30.24	
R-17	4	59.68	15.0	20.0	02/14/2014	34.50	26.28	--	--	--	33.40	
R-17	4	59.68	15.0	20.0	05/05/2014	34.57	22.68	--	--	--	37.00	
R-17	4	59.68	15.0	20.0	07/28/2014	34.34	21.33	--	--	--	38.35	
R-17	4	59.68	15.0	20.0	10/28/2014	34.39	20.28	--	--	--	39.40	
R-18	4	55.72	7.0	20.0	02/07/2012	27.34	13.34	--	--	--	42.38	
R-18	4	55.72	7.0	20.0	04/30/2012	27.36	13.00	--	--	--	42.72	
R-18	4	55.72	7.0	20.0	08/13/2012	27.33	13.18	--	--	--	42.54	
R-18	4	55.72	7.0	20.0	11/01/2012	27.32	14.03	--	--	--	41.69	
R-18	4	55.72	7.0	20.0	02/06/2013	27.28	13.95	--	--	--	41.77	
R-18	4	55.72	7.0	20.0	05/02/2013	27.30	14.22	--	--	--	41.50	
R-18	4	55.72	7.0	20.0	07/29/2013	27.30	14.32	--	--	--	41.40	
R-18	4	55.72	7.0	20.0	10/28/2013	27.31	14.68	--	--	--	41.04	
R-18	4	55.72	7.0	20.0	02/14/2014	27.29	15.21	--	--	--	40.51	
R-18	4	55.72	7.0	20.0	05/05/2014	27.30	13.23	--	--	--	42.49	
R-18	4	55.72	7.0	20.0	07/28/2014	27.44	12.88	--	--	--	42.84	
R-18	4	55.72	7.0	20.0	10/27/2014	27.30	10.42	--	--	--	45.30	
R-19	4	78.12	32.5	20.0	02/08/2012	53.33	35.11	--	--	--	43.01	
R-19	4	78.12	32.5	20.0	04/30/2012	53.29	35.30	--	--	--	42.82	
R-19	4	78.11	32.5	20.0	08/06/2012	53.29	35.55	--	--	--	42.56	
R-19	4	78.11	32.5	20.0	11/07/2012	53.20	36.10	--	--	--	42.01	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-19	4	78.11	32.5	20.0	02/20/2013	53.14	36.22	--	--	--	41.89	
R-19	4	78.11	32.5	20.0	05/03/2013	53.18	36.30	--	--	--	41.81	
R-19	4	78.11	32.5	20.0	07/29/2013	53.25	36.65	--	--	--	41.46	
R-19	4	78.11	32.5	20.0	10/28/2013	53.26	37.06	--	--	--	41.05	
R-19	4	78.11	32.5	20.0	02/14/2014	53.23	37.34	--	--	--	40.77	
R-19	4	78.11	32.5	20.0	05/05/2014	53.20	36.75	--	--	--	41.36	
R-19	4	78.11	32.5	20.0	07/28/2014	53.24	36.14	--	--	--	41.97	
R-19	4	78.11	32.5	20.0	10/27/2014	53.33	35.62	--	--	--	42.49	
R-20	4	53.19	7.0	20.0	02/06/2012	27.05	13.35	--	--	--	39.84	
R-20	4	53.19	7.0	20.0	04/23/2012	26.69	13.35	--	--	--	39.84	
R-20	4	53.19	7.0	20.0	08/06/2012	26.67	14.14	--	--	--	39.05	
R-20	4	53.19	7.0	20.0	11/05/2012	26.75	14.70	--	--	--	38.49	
R-20	4	53.19	7.0	20.0	02/20/2013	26.64	15.61	--	--	--	37.58	
R-20	4	53.19	7.0	20.0	05/03/2013	26.68	16.25	--	--	--	36.94	
R-20	4	53.19	7.0	20.0	07/29/2013	26.63	16.63	--	--	--	36.56	
R-20	4	53.19	7.0	20.0	10/28/2013	26.60	17.04	--	--	--	36.15	
R-20	4	53.19	7.0	20.0	02/14/2014	26.66	16.58	--	--	--	36.61	
R-20	4	53.19	7.0	20.0	05/05/2014	26.63	14.56	--	--	--	38.63	
R-20	4	53.19	7.0	20.0	07/28/2014	26.60	13.46	--	--	--	39.73	
R-20	4	53.19	7.0	20.0	10/27/2014	26.68	12.80	--	--	--	40.39	
R-21AS	4	42.90	~5.0	20.0	02/07/2012	21.75	5.05	--	--	--	37.85	
R-21AS	4	42.90	~5.0	20.0	04/30/2012	21.53	5.44	--	--	--	37.46	
R-21AS	4	42.90	~5.0	20.0	08/13/2012	21.91	8.03	--	--	--	34.87	
R-21AS	4	42.90	~5.0	20.0	11/05/2012	22.03	8.21	--	--	--	34.69	
R-21AS	4	42.90	~5.0	20.0	02/26/2013	21.50	9.28	--	--	--	33.62	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-21AS	4	42.90	~5.0	20.0	05/01/2013	21.45	11.68	--	--	--	31.22	
R-21AS	4	42.90	~5.0	20.0	07/29/2013	21.35	12.20	--	--	--	30.70	
R-21AS	4	42.90	~5.0	20.0	10/28/2013	21.52	13.21	--	--	--	29.69	
R-21AS	4	42.90	~5.0	20.0	02/14/2014	21.51	8.61	--	--	--	34.29	
R-21AS	4	42.90	~5.0	20.0	05/05/2014	21.78	6.03	--	--	--	36.87	
R-21AS	4	42.90	~5.0	20.0	07/28/2014	21.61	5.10	--	--	--	37.80	
R-21AS	4	42.90	~5.0	20.0	10/27/2014	21.51	4.21	--	--	--	38.69	
R-21AM	2	45.59	37.0	5.0	02/07/2012	41.96	7.84	--	--	--	37.75	
R-21AM	2	45.59	37.0	5.0	04/30/2012	41.94	8.05	--	--	--	37.54	
R-21AM	2	45.59	37.0	5.0	08/13/2012	41.85	10.83	--	--	--	34.76	
R-21AM	2	45.59	37.0	5.0	11/05/2012	41.86	11.04	--	--	--	34.55	
R-21AM	2	45.59	37.0	5.0	02/26/2013	41.91	12.42	--	--	--	33.17	
R-21AM	2	45.59	37.0	5.0	05/01/2013	41.95	14.40	--	--	--	31.19	
R-21AM	2	45.59	37.0	5.0	07/29/2013	41.87	14.90	--	--	--	30.69	
R-21AM	2	45.59	37.0	5.0	10/28/2013	41.86	16.08	--	--	--	29.51	
R-21AM	2	45.59	37.0	5.0	02/14/2014	41.90	11.35	--	--	--	34.24	
R-21AM	2	45.59	37.0	5.0	05/05/2014	41.89	8.73	--	--	--	36.86	
R-21AM	2	45.59	37.0	5.0	07/28/2014	41.91	7.85	--	--	--	37.74	
R-21AM	2	45.59	37.0	5.0	10/27/2014	41.91	7.08	--	--	--	38.51	
R-21AD	2	45.63	55.0	5.0	02/07/2012	59.57	7.76	--	--	--	37.87	
R-21AD	2	45.63	55.0	5.0	04/30/2012	59.69	8.11	--	--	--	37.52	
R-21AD	2	45.63	55.0	5.0	08/13/2012	59.56	10.84	--	--	--	34.79	
R-21AD	2	45.63	55.0	5.0	11/05/2012	59.56	11.05	--	--	--	34.58	
R-21AD	2	45.63	55.0	5.0	02/26/2013	59.54	12.08	--	--	--	33.55	
R-21AD	2	45.63	55.0	5.0	05/01/2013	59.62	14.42	--	--	--	31.21	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-21AD	2	45.63	55.0	5.0	07/29/2013	59.60	14.92	--	--	--	30.71	
R-21AD	2	45.63	55.0	5.0	10/28/2013	59.60	16.24	--	--	--	29.39	
R-21AD	2	45.63	55.0	5.0	02/14/2014	59.59	11.41	--	--	--	34.22	
R-21AD	2	45.63	55.0	5.0	05/05/2014	59.56	8.79	--	--	--	36.84	
R-21AD	2	45.63	55.0	5.0	07/28/2014	59.58	7.86	--	--	--	37.77	
R-21AD	2	45.63	55.0	5.0	10/27/2014	59.62	7.11	--	--	--	38.52	
R-21FS	2	45.75	78.0	5.0	02/07/2012	82.92	6.31	--	--	--	39.44	
R-21FS	2	45.75	78.0	5.0	04/30/2012	82.99	8.51	--	--	--	37.24	
R-21FS	2	45.75	78.0	5.0	08/13/2012	82.86	8.78	--	--	--	36.97	
R-21FS	2	45.75	78.0	5.0	11/05/2012	82.86	9.02	--	--	--	36.73	
R-21FS	2	45.75	78.0	5.0	02/26/2013	82.74	9.35	--	--	--	36.40	
R-21FS	2	45.75	78.0	5.0	05/01/2013	82.86	11.56	--	--	--	34.19	
R-21FS	2	45.75	78.0	5.0	07/29/2013	82.90	12.12	--	--	--	33.63	
R-21FS	2	45.75	78.0	5.0	10/28/2013	82.85	12.98	--	--	--	32.77	
R-21FS	2	45.75	78.0	5.0	02/14/2014	82.84	10.68	--	--	--	35.07	
R-21FS	2	45.75	78.0	5.0	05/05/2014	82.81	10.90	--	--	--	34.85	
R-21FS	2	45.75	78.0	5.0	07/28/2014	82.89	6.60	--	--	--	39.15	
R-21FS	2	45.75	78.0	5.0	10/27/2014	82.88	6.04	--	--	--	39.71	
R-22	4	56.56	14.0	20.0	02/08/2012	34.51	16.78	--	--	--	39.78	
R-22	4	56.56	14.0	20.0	04/30/2012	34.53	17.11	--	--	--	39.45	
R-22	4	56.56	14.0	20.0	08/06/2012	34.55	17.63	--	--	--	38.93	
R-22	4	56.56	14.0	20.0	11/05/2012	34.45	18.46	--	--	--	38.10	
R-22	4	56.56	14.0	20.0	02/25/2013	34.35	18.91	--	--	--	37.65	
R-22	4	56.56	14.0	20.0	05/03/2013	34.44	19.10	--	--	--	37.46	
R-22	4	56.56	14.0	20.0	07/29/2013	34.55	19.54	--	--	--	37.02	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-22	4	56.56	14.0	20.0	10/28/2013	34.44	20.12	--	--	--	36.44	
R-22	4	56.56	14.0	20.0	02/14/2014	34.43	19.95	--	--	--	36.61	
R-22	4	56.56	14.0	20.0	05/05/2014	34.44	18.48	--	--	--	38.08	
R-22	4	56.56	14.0	20.0	07/28/2014	34.43	16.97	--	--	--	39.59	
R-22	4	56.56	14.0	20.0	10/27/2014	34.47	15.68	--	--	--	40.88	
R-23AS	2	60.36	26.0	10.0	02/15/2012	34.15	23.70	--	--	--	36.66	
R-23AS	2	60.36	26.0	10.0	05/03/2012	34.09	24.20	--	--	--	36.16	
R-23AS	2	60.36	26.0	10.0	08/14/2012	34.07	25.60	--	--	--	34.76	
R-23AS	2	60.36	26.0	10.0	10/31/2012	34.10	25.48	--	--	--	34.88	
R-23AS	2	60.36	26.0	10.0	02/21/2013	34.01	23.94	--	--	--	36.42	
R-23AS	2	60.36	26.0	10.0	05/08/2013	34.06	24.88	--	--	--	35.48	
R-23AS	2	60.36	26.0	10.0	07/29/2013	34.00	26.16	--	--	--	34.20	
R-23AS	2	60.36	26.0	10.0	10/29/2013	34.01	25.87	--	--	--	34.49	
R-23AS	2	60.36	26.0	10.0	02/14/2014	33.96	23.15	--	--	--	37.21	
R-23AS	2	60.36	26.0	10.0	05/06/2014	34.05	24.94	--	--	--	35.42	
R-23AS	2	60.36	26.0	10.0	07/29/2014	34.00	25.58	--	--	--	34.78	
R-23AS	2	60.36	26.0	10.0	10/28/2014	34.03	25.37	--	--	--	34.99	
R-23AM	2	60.53	44.0	5.0	02/15/2012	49.62	24.24	--	--	--	36.29	
R-23AM	2	60.53	44.0	5.0	05/03/2012	49.28	24.43	--	--	--	36.10	
R-23AM	2	60.53	44.0	5.0	08/14/2012	49.22	25.90	--	--	--	34.63	
R-23AM	2	60.53	44.0	5.0	10/31/2012	49.20	25.70	--	--	--	34.83	
R-23AM	2	60.53	44.0	5.0	02/21/2013	49.22	24.05	--	--	--	36.48	
R-23AM	2	60.53	44.0	5.0	05/08/2013	49.21	25.00	--	--	--	35.53	
R-23AM	2	60.53	44.0	5.0	07/29/2013	49.25	26.49	--	--	--	34.04	
R-23AM	2	60.53	44.0	5.0	10/29/2013	49.21	25.75	--	--	--	34.78	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-23AM	2	60.53	44.0	5.0	02/14/2014	49.24	25.30	--	--	--	35.23	
R-23AM	2	60.53	44.0	5.0	05/06/2014	49.24	25.27	--	--	--	35.26	
R-23AM	2	60.53	44.0	5.0	07/29/2014	49.44	25.82	--	--	--	34.71	
R-23AM	2	60.53	44.0	5.0	10/28/2014	49.18	25.63	--	--	--	34.90	
R-23AD	2	60.56	62.0	5.0	02/15/2012	66.35	23.90	--	--	--	36.66	
R-23AD	2	60.56	62.0	5.0	05/03/2012	66.36	24.50	--	--	--	36.06	
R-23AD	2	60.56	62.0	5.0	08/14/2012	66.44	25.95	--	--	--	34.61	
R-23AD	2	60.56	62.0	5.0	10/31/2012	66.40	25.80	--	--	--	34.76	
R-23AD	2	60.56	62.0	5.0	02/21/2013	66.36	24.10	--	--	--	36.46	
R-23AD	2	60.56	62.0	5.0	05/08/2013	66.28	24.91	--	--	--	35.65	
R-23AD	2	60.56	62.0	5.0	07/29/2013	66.45	26.60	--	--	--	33.96	
R-23AD	2	60.56	62.0	5.0	10/29/2013	66.36	25.80	--	--	--	34.76	
R-23AD	2	60.56	62.0	5.0	02/14/2014	66.13	25.40	--	--	--	35.16	
R-23AD	2	60.56	62.0	5.0	05/06/2014	65.94	25.28	--	--	--	35.28	
R-23AD	2	60.56	62.0	5.0	07/29/2014	66.31	25.96	--	--	--	34.60	
R-23AD	2	60.56	62.0	5.0	10/28/2014	66.29	25.67	--	--	--	34.89	
R-23FS	2	60.56	86.0	5.0	02/15/2012	90.95	24.13	--	--	--	36.43	
R-23FS	2	60.56	86.0	5.0	05/03/2012	90.52	24.43	--	--	--	36.13	
R-23FS	2	60.56	86.0	5.0	08/14/2012	90.50	25.75	--	--	--	34.81	
R-23FS	2	60.56	86.0	5.0	10/31/2012	90.40	25.62	--	--	--	34.94	
R-23FS	2	60.56	86.0	5.0	02/21/2013	90.48	23.91	--	--	--	36.65	
R-23FS	2	60.56	86.0	5.0	05/08/2013	90.45	24.80	--	--	--	35.76	
R-23FS	2	60.56	86.0	5.0	07/29/2013	90.45	26.50	--	--	--	34.06	
R-23FS	2	60.56	86.0	5.0	10/29/2013	90.40	26.07	--	--	--	34.49	
R-23FS	2	60.56	86.0	5.0	02/14/2014	90.22	25.18	--	--	--	35.38	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-23FS	2	60.56	86.0	5.0	05/06/2014	90.09	25.21	--	--	--	35.35	
R-23FS	2	60.56	86.0	5.0	07/29/2014	90.43	25.90	--	--	--	34.66	
R-23FS	2	60.56	86.0	5.0	10/28/2014	90.43	25.44	--	--	--	35.12	
R-24AS	2	58.19	20.0	10.0	02/06/2012	29.60	20.90	--	--	--	37.29	
R-24AS	2	58.19	20.0	10.0	04/23/2012	29.57	21.00	--	--	--	37.19	
R-24AS	2	58.19	20.0	10.0	08/06/2012	29.57	21.85	--	--	--	36.34	
R-24AS	2	58.19	20.0	10.0	10/29/2012	29.50	21.86	--	--	--	36.33	
R-24AS	2	58.19	20.0	10.0	02/19/2013	29.51	21.83	--	--	--	36.36	
R-24AS	2	58.19	20.0	10.0	04/30/2013	29.51	22.10	--	--	--	36.09	
R-24AS	2	58.19	20.0	10.0	07/29/2013	29.55	22.40	--	--	--	35.79	
R-24AS	2	58.19	20.0	10.0	10/29/2013	29.61	22.47	--	--	--	35.72	
R-24AS	2	58.19	20.0	10.0	02/14/2014	29.62	22.21	--	--	--	35.98	
R-24AS	2	58.19	20.0	10.0	05/06/2014	29.60	21.84	--	--	--	36.35	
R-24AS	2	58.19	20.0	10.0	07/28/2014	29.63	22.02	--	--	--	36.17	
R-24AS	2	58.19	20.0	10.0	10/28/2014	29.58	21.74	--	--	--	36.45	
R-24AM	2	59.79	43.0	5.0	02/06/2012	47.70	24.29	--	--	--	35.50	
R-24AM	2	59.79	43.0	5.0	04/23/2012	47.72	23.69	--	--	--	36.10	
R-24AM	2	59.79	43.0	5.0	08/06/2012	47.71	24.22	--	--	--	35.57	
R-24AM	2	59.79	43.0	5.0	10/29/2012	47.71	24.53	--	--	--	35.26	
R-24AM	2	59.79	43.0	5.0	02/19/2013	47.64	23.93	--	--	--	35.86	
R-24AM	2	59.79	43.0	5.0	04/30/2013	47.68	24.40	--	--	--	35.39	
R-24AM	2	59.79	43.0	5.0	07/29/2013	47.65	24.90	--	--	--	34.89	
R-24AM	2	59.79	43.0	5.0	10/29/2013	47.63	24.48	--	--	--	35.31	
R-24AM	2	59.79	43.0	5.0	02/14/2014	47.64	24.53	--	--	--	35.26	
R-24AM	2	59.79	43.0	5.0	05/06/2014	54.25	22.43	--	--	--	37.36	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-24AM	2	59.79	43.0	5.0	07/28/2014	47.65	24.51	--	--	--	35.28	
R-24AM	2	59.79	43.0	5.0	10/28/2014	47.65	24.24	--	--	--	35.55	
R-24AD	2	57.84	51.0	5.0	02/06/2012	54.29	21.54	--	--	--	36.30	
R-24AD	2	57.84	51.0	5.0	04/23/2012	54.27	21.70	--	--	--	36.14	
R-24AD	2	57.84	51.0	5.0	08/06/2012	54.31	22.57	--	--	--	35.27	
R-24AD	2	57.84	51.0	5.0	10/29/2012	54.33	22.63	--	--	--	35.21	
R-24AD	2	57.84	51.0	5.0	02/19/2013	54.22	22.25	--	--	--	35.59	
R-24AD	2	57.84	51.0	5.0	04/30/2013	54.26	22.58	--	--	--	35.26	
R-24AD	2	57.84	51.0	5.0	07/29/2013	54.28	22.95	--	--	--	34.89	
R-24AD	2	57.84	51.0	5.0	10/29/2013	54.25	22.54	--	--	--	35.30	
R-24AD	2	57.84	51.0	5.0	02/14/2014	54.30	22.55	--	--	--	35.29	
R-24AD	2	57.84	51.0	5.0	05/06/2014	47.63	24.27	--	--	--	33.57	
R-24AD	2	57.84	51.0	5.0	07/28/2014	54.26	22.51	--	--	--	35.33	
R-24AD	2	57.84	51.0	5.0	10/28/2014	54.27	22.40	--	--	--	35.44	
R-24FS	2	58.25	74.0	5.0	02/06/2012	79.00	21.39	--	--	--	36.86	
R-24FS	2	58.25	74.0	5.0	04/23/2012	79.13	21.31	--	--	--	36.94	
R-24FS	2	58.25	74.0	5.0	08/06/2012	79.08	21.93	--	--	--	36.32	
R-24FS	2	58.25	74.0	5.0	10/29/2012	79.09	22.20	--	--	--	36.05	
R-24FS	2	58.25	74.0	5.0	02/19/2013	78.89	21.98	--	--	--	36.27	
R-24FS	2	58.25	74.0	5.0	04/30/2013	78.93	22.10	--	--	--	36.15	
R-24FS	2	58.25	74.0	5.0	07/29/2013	79.00	22.55	--	--	--	35.70	
R-24FS	2	58.25	74.0	5.0	10/29/2013	78.95	22.26	--	--	--	35.99	
R-24FS	2	58.25	74.0	5.0	02/14/2014	78.84	22.11	--	--	--	36.14	
R-24FS	2	58.25	74.0	5.0	05/06/2014	79.00	22.05	--	--	--	36.20	
R-24FS	2	58.25	74.0	5.0	07/28/2014	79.00	22.23	--	--	--	36.02	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-24FS	2	58.25	74.0	5.0	10/28/2014	79.00	22.15	--	--	--	36.10	
R-25AS	2	47.97	5.0	15.0	02/06/2012	19.28	11.14	--	--	--	36.83	
R-25AS	2	47.97	5.0	15.0	04/25/2012	18.84	11.63	--	--	--	36.34	
R-25AS	2	47.97	5.0	15.0	08/06/2012	18.80	13.11	--	--	--	34.86	
R-25AS	2	47.97	5.0	15.0	11/12/2012	18.80	12.75	--	--	--	35.22	
R-25AS	2	47.97	5.0	15.0	02/22/2013	18.67	12.54	--	--	--	35.43	
R-25AS	2	47.97	5.0	15.0	04/30/2013	18.80	14.58	--	--	--	33.39	
R-25AS	2	47.97	5.0	15.0	07/29/2013	18.75	15.85	--	--	--	32.12	
R-25AS	2	47.97	5.0	15.0	10/28/2013	18.74	16.72	--	--	--	31.25	
R-25AS	2	47.97	5.0	15.0	02/14/2014	19.03	13.16	--	--	--	34.81	
R-25AS	2	47.97	5.0	15.0	05/05/2014	19.01	11.50	--	--	--	36.47	
R-25AS	2	47.97	5.0	15.0	07/28/2014	19.04	11.50	--	--	--	36.47	
R-25AS	2	47.97	5.0	15.0	10/27/2014	19.17	11.02	--	--	--	36.95	
R-25AM	2	47.65	44.0	5.0	02/06/2012	49.13	10.84	--	--	--	36.81	
R-25AM	2	47.65	44.0	5.0	04/25/2012	48.83	12.12	--	--	--	35.53	
R-25AM	2	47.65	44.0	5.0	08/06/2012	48.75	13.94	--	--	--	33.71	
R-25AM	2	47.65	44.0	5.0	11/12/2012	48.70	13.15	--	--	--	34.50	
R-25AM	2	47.65	44.0	5.0	02/22/2013	48.66	12.85	--	--	--	34.80	
R-25AM	2	47.65	44.0	5.0	04/30/2013	48.75	15.80	--	--	--	31.85	
R-25AM	2	47.65	44.0	5.0	07/29/2013	48.73	16.60	--	--	--	31.05	
R-25AM	2	47.65	44.0	5.0	10/28/2013	48.67	17.33	--	--	--	30.32	
R-25AM	2	47.65	44.0	5.0	02/14/2014	48.70	12.29	--	--	--	35.36	
R-25AM	2	47.65	44.0	5.0	05/05/2014	48.65	11.24	--	--	--	36.41	
R-25AM	2	47.65	44.0	5.0	07/28/2014	48.68	11.13	--	--	--	36.52	
R-25AM	2	47.65	44.0	5.0	10/27/2014	48.71	10.67	--	--	--	36.98	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-25FS	2	47.70	90.5	5.0	02/06/2012	95.90	9.94	--	--	--	37.76	
R-25FS	2	47.70	90.5	5.0	04/25/2012	95.63	10.23	--	--	--	37.47	
R-25FS	2	47.70	90.5	5.0	08/06/2012	95.53	12.60	--	--	--	35.10	
R-25FS	2	47.70	90.5	5.0	11/12/2012	95.50	13.15	--	--	--	34.55	
R-25FS	2	47.70	90.5	5.0	02/22/2013	95.44	11.89	--	--	--	35.81	
R-25FS	2	47.70	90.5	5.0	04/30/2013	95.55	14.42	--	--	--	33.28	
R-25FS	2	47.70	90.5	5.0	07/29/2013	95.44	15.50	--	--	--	32.20	
R-25FS	2	47.70	90.5	5.0	10/28/2013	95.50	16.22	--	--	--	31.48	
R-25FS	2	47.70	90.5	5.0	02/14/2014	95.49	11.87	--	--	--	35.83	
R-25FS	2	47.70	90.5	5.0	05/05/2014	95.48	10.59	--	--	--	37.11	
R-25FS	2	47.70	90.5	5.0	07/28/2014	95.26	10.62	--	--	--	37.08	
R-25FS	2	47.70	90.5	5.0	10/27/2014	95.46	10.22	--	--	--	37.48	
R-26AS	2	46.00	5.0	15.0	02/06/2012	19.05	9.62	--	--	--	36.38	
R-26AS	2	46.00	5.0	15.0	04/30/2012	18.78	8.55	--	--	--	37.45	
R-26AS	2	46.00	5.0	15.0	08/06/2012	18.80	10.98	--	--	--	35.02	
R-26AS	2	46.00	5.0	15.0	11/12/2012	18.90	9.75	--	--	--	36.25	
R-26AS	2	46.00	5.0	15.0	02/20/2013	18.84	8.26	--	--	--	37.74	
R-26AS	2	46.00	5.0	15.0	04/29/2013	18.80	10.60	--	--	--	35.40	
R-26AS	2	46.00	5.0	15.0	07/29/2013	18.80	11.84	--	--	--	34.16	
R-26AS	2	46.00	5.0	15.0	10/28/2013	18.78	11.98	--	--	--	34.02	
R-26AS	2	46.00	5.0	15.0	02/14/2014	18.75	10.06	--	--	--	35.94	
R-26AS	2	46.00	5.0	15.0	05/05/2014	18.75	9.83	--	--	--	36.17	
R-26AS	2	46.00	5.0	15.0	07/28/2014	18.83	10.54	--	--	--	35.46	
R-26AS	2	46.00	5.0	15.0	10/27/2014	18.88	9.82	--	--	--	36.18	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-26AM	2	46.07	49.5	5.0	02/06/2012	49.45	10.15	--	--	--	35.92	
R-26AM	2	46.07	49.5	5.0	04/30/2012	49.03	9.39	--	--	--	36.68	
R-26AM	2	46.07	49.5	5.0	08/06/2012	49.00	11.59	--	--	--	34.48	
R-26AM	2	46.07	49.5	5.0	11/12/2012	49.00	11.05	--	--	--	35.02	
R-26AM	2	46.07	49.5	5.0	02/20/2013	48.99	9.26	--	--	--	36.81	
R-26AM	2	46.07	49.5	5.0	04/29/2013	49.05	12.12	--	--	--	33.95	
R-26AM	2	46.07	49.5	5.0	07/29/2013	49.05	12.87	--	--	--	33.20	
R-26AM	2	46.07	49.5	5.0	10/28/2013	49.02	13.14	--	--	--	32.93	
R-26AM	2	46.07	49.5	5.0	02/14/2014	49.00	10.85	--	--	--	35.22	
R-26AM	2	46.07	49.5	5.0	05/05/2014	49.00	10.36	--	--	--	35.71	
R-26AM	2	46.07	49.5	5.0	07/28/2014	49.11	10.72	--	--	--	35.35	
R-26AM	2	46.07	49.5	5.0	10/27/2014	49.00	10.44	--	--	--	35.63	
R-26FS	2	46.04	90.0	5.0	02/06/2012	80.12	9.15	--	--	--	36.89	
R-26FS	2	46.04	90.0	5.0	04/30/2012	79.75	9.10	--	--	--	36.94	
R-26FS	2	46.04	90.0	5.0	08/06/2012	79.78	11.32	--	--	--	34.72	
R-26FS	2	46.04	90.0	5.0	11/12/2012	79.70	11.12	--	--	--	34.92	
R-26FS	2	46.04	90.0	5.0	02/20/2013	79.66	9.63	--	--	--	36.41	
R-26FS	2	46.04	90.0	5.0	04/29/2013	79.75	11.95	--	--	--	34.09	
R-26FS	2	46.04	90.0	5.0	07/29/2013	79.80	11.90	--	--	--	34.14	
R-26FS	2	46.04	90.0	5.0	10/28/2013	79.66	12.74	--	--	--	33.30	
R-26FS	2	46.04	90.0	5.0	02/14/2014	79.70	10.53	--	--	--	35.51	
R-26FS	2	46.04	90.0	5.0	05/05/2014	79.71	9.65	--	--	--	36.39	
R-26FS	2	46.04	90.0	5.0	07/28/2014	79.57	10.68	--	--	--	35.36	
R-26FS	2	46.04	90.0	5.0	10/27/2014	79.74	9.10	--	--	--	36.94	
R-27AS	2	49.36	6.5	15.0	02/16/2012	21.53	11.53	--	--	--	37.83	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-27AS	2	49.36	6.5	15.0	04/25/2012	21.17	12.31	--	--	--	37.05	
R-27AS	2	49.36	6.5	15.0	08/07/2012	21.00	14.13	--	--	--	35.23	
R-27AS	2	49.36	6.5	15.0	11/12/2012	21.15	13.70	--	--	--	35.66	
R-27AS	2	49.36	6.5	15.0	02/20/2013	20.98	14.04	--	--	--	35.32	
R-27AS	2	49.36	6.5	15.0	04/30/2013	21.02	16.33	--	--	--	33.03	
R-27AS	2	49.36	6.5	15.0	07/29/2013	20.98	16.41	--	--	--	32.95	
R-27AS	2	49.36	6.5	15.0	10/28/2013	21.14	17.70	--	--	--	31.66	
R-27AS	2	49.36	6.5	15.0	02/14/2014	21.05	13.84	--	--	--	35.52	
R-27AS	2	49.36	6.5	15.0	05/05/2014	21.04	12.38	--	--	--	36.98	
R-27AS	2	49.36	6.5	15.0	07/28/2014	21.13	11.93	--	--	--	37.43	
R-27AS	2	49.36	6.5	15.0	10/27/2014	20.98	11.34	--	--	--	38.02	
R-27AM	2	49.36	40.0	10.0	02/16/2012	50.05	11.05	--	--	--	38.31	
R-27AM	2	49.36	40.0	10.0	04/25/2012	49.74	11.52	--	--	--	37.84	
R-27AM	2	49.36	40.0	10.0	08/07/2012	49.60	13.00	--	--	--	36.36	
R-27AM	2	49.36	40.0	10.0	11/12/2012	49.55	12.86	--	--	--	36.50	
R-27AM	2	49.36	40.0	10.0	02/20/2013	49.60	13.35	--	--	--	36.01	
R-27AM	2	49.36	40.0	10.0	04/30/2013	49.48	14.87	--	--	--	34.49	
R-27AM	2	49.36	40.0	10.0	07/29/2013	49.51	14.94	--	--	--	34.42	
R-27AM	2	49.36	40.0	10.0	10/28/2013	49.61	15.86	--	--	--	33.50	
R-27AM	2	49.36	40.0	10.0	02/14/2014	49.62	13.60	--	--	--	35.76	
R-27AM	2	49.36	40.0	10.0	05/05/2014	49.69	12.16	--	--	--	37.20	
R-27AM	2	49.36	40.0	10.0	07/28/2014	49.73	11.41	--	--	--	37.95	
R-27AM	2	49.36	40.0	10.0	10/27/2014	49.60	10.79	--	--	--	38.57	
R-27FS	2	49.26	70.0	10.0	02/16/2012	76.05	10.80	--	--	--	38.46	
R-27FS	2	49.26	70.0	10.0	04/25/2012	75.72	10.73	--	--	--	38.53	

Table 3



Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-27FS	2	49.26	70.0	10.0	08/07/2012	75.64	12.64	--	--	--	36.62	
R-27FS	2	49.26	70.0	10.0	11/12/2012	75.63	12.45	--	--	--	36.81	
R-27FS	2	49.26	70.0	10.0	02/20/2013	75.59	13.08	--	--	--	36.18	
R-27FS	2	49.26	70.0	10.0	04/30/2013	75.59	13.74	--	--	--	35.52	
R-27FS	2	49.26	70.0	10.0	07/29/2013	75.62	13.82	--	--	--	35.44	
R-27FS	2	49.26	70.0	10.0	10/28/2013	75.68	16.64	--	--	--	32.62	
R-27FS	2	49.26	70.0	10.0	02/14/2014	75.62	13.45	--	--	--	35.81	
R-27FS	2	49.26	70.0	10.0	05/05/2014	75.62	11.60	--	--	--	37.66	
R-27FS	2	49.26	70.0	10.0	07/28/2014	75.66	11.16	--	--	--	38.10	
R-27FS	2	49.26	70.0	10.0	10/27/2014	75.60	10.62	--	--	--	38.64	
R-28AS	2	52.24	10.0	15.0	01/26/2012	23.81	16.71	--	--	--	35.53	
R-28AS	2	52.24	10.0	15.0	02/15/2012	23.72	16.63	--	--	--	35.61	
R-28AS	2	52.24	10.0	15.0	03/02/2012	23.80	16.30	--	--	--	35.94	
R-28AS	2	52.24	10.0	15.0	04/04/2012	23.77	16.73	--	--	--	35.51	
R-28AS	2	52.24	10.0	15.0	05/03/2012	23.77	16.80	--	--	--	35.44	
R-28AS	2	52.24	10.0	15.0	06/07/2012	24.23	17.89	--	--	--	34.35	
R-28AS	2	52.24	10.0	15.0	07/02/2012	23.81	17.90	--	--	--	34.34	
R-28AS	2	52.24	10.0	15.0	08/14/2012	23.77	18.08	--	--	--	34.16	
R-28AS	2	52.24	10.0	15.0	09/05/2012	23.72	18.19	--	--	--	34.05	
R-28AS	2	52.24	10.0	15.0	10/15/2012	23.80	18.00	--	--	--	34.24	
R-28AS	2	52.24	10.0	15.0	10/31/2012	23.64	18.16	--	--	--	34.08	
R-28AS	2	52.24	10.0	15.0	12/03/2012	23.60	18.05	--	--	--	34.19	
R-28AS	2	52.24	10.0	15.0	01/03/2013	23.45	16.87	--	--	--	35.37	
R-28AS	2	52.24	10.0	15.0	02/21/2013	23.55	15.90	--	--	--	36.34	
R-28AS	2	52.24	10.0	15.0	03/14/2013	23.51	16.10	--	--	--	36.14	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-28AS	2	52.24	10.0	15.0	04/12/2013	23.60	17.70	--	--	--	34.54	
R-28AS	2	52.24	10.0	15.0	05/08/2013	23.52	17.31	--	--	--	34.93	
R-28AS	2	52.24	10.0	15.0	06/11/2013	23.60	18.12	--	--	--	34.12	
R-28AS	2	52.24	10.0	15.0	07/12/2013	23.65	18.23	--	--	--	34.01	
R-28AS	2	52.24	10.0	15.0	07/29/2013	23.51	18.27	--	--	--	33.97	
R-28AS	2	52.24	10.0	15.0	09/03/2013	24.00	18.60	--	--	--	33.64	
R-28AS	2	52.24	10.0	15.0	10/01/2013	23.99	18.44	--	--	--	33.80	
R-28AS	2	52.24	10.0	15.0	10/29/2013	24.05	18.52	--	--	--	33.72	
R-28AS	2	52.24	10.0	15.0	12/02/2013	24.00	18.50	--	--	--	33.74	
R-28AS	2	52.24	10.0	15.0	02/14/2014	24.05	17.70	--	--	--	34.54	
R-28AS	2	52.24	10.0	15.0	05/06/2014	23.99	17.73	--	--	--	34.51	
R-28AS	2	52.24	10.0	15.0	07/29/2014	24.64	18.36	--	--	--	33.88	
R-28AS	2	52.24	10.0	15.0	10/28/2014	24.25	18.21	--	--	--	34.03	
R-28AM	2	52.56	44.0	5.0	01/26/2012	49.47	16.99	--	--	--	35.57	
R-28AM	2	52.56	44.0	5.0	02/15/2012	49.52	16.81	--	--	--	35.75	
R-28AM	2	52.56	44.0	5.0	03/02/2012	49.50	16.62	--	--	--	35.94	
R-28AM	2	52.56	44.0	5.0	04/04/2012	49.52	17.02	--	--	--	35.54	
R-28AM	2	52.56	44.0	5.0	05/03/2012	49.54	17.12	--	--	--	35.44	
R-28AM	2	52.56	44.0	5.0	06/07/2012	49.85	18.20	--	--	--	34.36	
R-28AM	2	52.56	44.0	5.0	07/02/2012	49.51	18.20	--	--	--	34.36	
R-28AM	2	52.56	44.0	5.0	08/14/2012	49.52	18.43	--	--	--	34.13	
R-28AM	2	52.56	44.0	5.0	09/05/2012	49.51	18.45	--	--	--	34.11	
R-28AM	2	52.56	44.0	5.0	10/15/2012	49.45	18.32	--	--	--	34.24	
R-28AM	2	52.56	44.0	5.0	10/31/2012	49.44	18.42	--	--	--	34.14	
R-28AM	2	52.56	44.0	5.0	12/03/2012	49.50	18.30	--	--	--	34.26	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-28AM	2	52.56	44.0	5.0	01/03/2013	49.43	17.12	--	--	--	35.44	
R-28AM	2	52.56	44.0	5.0	02/21/2013	49.43	16.14	--	--	--	36.42	
R-28AM	2	52.56	44.0	5.0	03/14/2013	49.45	16.44	--	--	--	36.12	
R-28AM	2	52.56	44.0	5.0	04/12/2013	49.44	17.64	--	--	--	34.92	
R-28AM	2	52.56	44.0	5.0	05/08/2013	49.47	17.51	--	--	--	35.05	
R-28AM	2	52.56	44.0	5.0	06/11/2013	49.45	18.40	--	--	--	34.16	
R-28AM	2	52.56	44.0	5.0	07/12/2013	49.40	18.54	--	--	--	34.02	
R-28AM	2	52.56	44.0	5.0	07/29/2013	49.43	18.52	--	--	--	34.04	
R-28AM	2	52.56	44.0	5.0	09/03/2013	49.41	18.71	--	--	--	33.85	
R-28AM	2	52.56	44.0	5.0	10/01/2013	49.44	18.71	--	--	--	33.85	
R-28AM	2	52.56	44.0	5.0	10/29/2013	49.44	18.32	--	--	--	34.24	
R-28AM	2	52.56	44.0	5.0	12/02/2013	49.40	18.66	--	--	--	33.90	
R-28AM	2	52.56	44.0	5.0	02/14/2014	49.21	17.84	--	--	--	34.72	
R-28AM	2	52.56	44.0	5.0	05/06/2014	49.42	17.98	--	--	--	34.58	
R-28AM	2	52.56	44.0	5.0	07/29/2014	49.30	18.55	--	--	--	34.01	
R-28AM	2	52.56	44.0	5.0	10/28/2014	49.46	18.47	--	--	--	34.09	
R-28FS	2	52.30	69.5	10.0	02/15/2012	79.70	17.00	--	--	--	35.30	
R-28FS	2	52.30	69.5	10.0	05/03/2012	79.45	16.90	--	--	--	35.40	
R-28FS	2	52.30	69.5	10.0	08/14/2012	79.33	18.20	--	--	--	34.10	
R-28FS	2	52.30	69.5	10.0	10/31/2012	79.30	18.28	--	--	--	34.02	
R-28FS	2	52.30	69.5	10.0	02/21/2013	79.28	16.02	--	--	--	36.28	
R-28FS	2	52.30	69.5	10.0	05/08/2013	79.25	17.25	--	--	--	35.05	
R-28FS	2	52.30	69.5	10.0	07/29/2013	79.27	18.54	--	--	--	33.76	
R-28FS	2	52.30	69.5	10.0	10/29/2013	79.30	18.32	--	--	--	33.98	
R-28FS	2	52.30	69.5	10.0	02/14/2014	79.00	18.14	--	--	--	34.16	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-28FS	2	52.30	69.5	10.0	05/06/2014	79.14	17.79	--	--	--	34.51	
R-28FS	2	52.30	69.5	10.0	07/29/2014	79.24	18.54	--	--	--	33.76	
R-28FS	2	52.30	69.5	10.0	10/28/2014	79.31	18.24	--	--	--	34.06	
R-29AS	2	51.62	18.0	15.0	02/06/2012	32.61	22.02	--	--	--	29.60	
R-29AS	2	51.62	18.0	15.0	04/23/2012	32.67	21.90	--	--	--	29.72	
R-29AS	2	51.62	18.0	15.0	08/06/2012	32.69	22.59	--	--	--	29.03	
R-29AS	2	51.62	18.0	15.0	11/12/2012	32.70	22.28	--	--	--	29.34	
R-29AS	2	51.62	18.0	15.0	02/19/2013	32.66	22.04	--	--	--	29.58	
R-29AS	2	51.62	18.0	15.0	04/29/2013	32.54	22.25	--	--	--	29.37	
R-29AS	2	51.62	18.0	15.0	07/29/2013	32.72	22.66	--	--	--	28.96	
R-29AS	2	51.62	18.0	15.0	10/29/2013	32.73	22.00	--	--	--	29.62	
R-29AS	2	51.62	18.0	15.0	02/14/2014	32.60	21.90	--	--	--	29.72	
R-29AS	2	51.62	18.0	15.0	05/06/2014	32.82	22.37	--	--	--	29.25	
R-29AS	2	51.62	18.0	15.0	07/28/2014	32.60	22.81	--	--	--	28.81	
R-29AS	2	51.62	18.0	15.0	10/28/2014	32.64	22.79	--	--	--	28.83	
R-29AM	2	52.47	50.0	5.0	02/06/2012	54.12	23.17	--	--	--	29.30	
R-29AM	2	52.47	50.0	5.0	04/23/2012	54.15	23.13	--	--	--	29.34	
R-29AM	2	52.47	50.0	5.0	08/06/2012	54.11	23.72	--	--	--	28.75	
R-29AM	2	52.47	50.0	5.0	11/12/2012	54.05	23.54	--	--	--	28.93	
R-29AM	2	52.47	50.0	5.0	02/19/2013	53.80	23.21	--	--	--	29.26	
R-29AM	2	52.47	50.0	5.0	04/29/2013	54.20	23.45	--	--	--	29.02	
R-29AM	2	52.47	50.0	5.0	07/29/2013	54.10	23.73	--	--	--	28.74	
R-29AM	2	52.47	50.0	5.0	10/29/2013	54.11	23.16	--	--	--	29.31	
R-29AM	2	52.47	50.0	5.0	02/14/2014	53.95	23.21	--	--	--	29.26	
R-29AM	2	52.47	50.0	5.0	05/06/2014	54.05	23.56	--	--	--	28.91	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-29AM	2	52.47	50.0	5.0	07/28/2014	54.04	23.90	--	--	--	28.57	
R-29AM	2	52.47	50.0	5.0	10/28/2014	54.09	23.86	--	--	--	28.61	
R-29FS	2	52.58	90.0	5.0	02/06/2012	95.73	22.26	--	--	--	30.32	
R-29FS	2	52.58	90.0	5.0	04/23/2012	95.80	22.18	--	--	--	30.40	
R-29FS	2	52.58	90.0	5.0	08/06/2012	95.70	22.85	--	--	--	29.73	
R-29FS	2	52.58	90.0	5.0	11/12/2012	95.62	22.70	--	--	--	29.88	
R-29FS	2	52.58	90.0	5.0	02/19/2013	95.60	21.54	--	--	--	31.04	
R-29FS	2	52.58	90.0	5.0	04/29/2013	95.68	22.53	--	--	--	30.05	
R-29FS	2	52.58	90.0	5.0	07/29/2013	95.65	22.90	--	--	--	29.68	
R-29FS	2	52.58	90.0	5.0	10/29/2013	95.64	22.73	--	--	--	29.85	
R-29FS	2	52.58	90.0	5.0	02/14/2014	95.50	22.37	--	--	--	30.21	
R-29FS	2	52.58	90.0	5.0	05/06/2014	95.54	22.62	--	--	--	29.96	
R-29FS	2	52.58	90.0	5.0	07/28/2014	95.65	23.16	--	--	--	29.42	
R-29FS	2	52.58	90.0	5.0	10/28/2014	95.64	23.01	--	--	--	29.57	
R-30AS	2	49.09	5.0	10.0	02/06/2012	14.32	10.64	--	--	--	38.45	
R-30AS	2	49.09	5.0	10.0	04/23/2012	14.50	11.11	--	--	--	37.98	
R-30AS	2	49.09	5.0	10.0	08/06/2012	14.59	12.07	--	--	--	37.02	
R-30AS	2	49.09	5.0	10.0	11/06/2012	14.55	12.15	--	--	--	36.94	
R-30AS	2	49.09	5.0	10.0	02/27/2013	14.43	12.41	--	--	--	36.68	
R-30AS	2	49.09	5.0	10.0	04/30/2013	14.45	13.30	--	--	--	35.79	
R-30AS	2	49.09	5.0	10.0	07/29/2013	14.55	13.68	--	--	--	35.41	
R-30AS	2	49.09	5.0	10.0	10/29/2013	14.48	13.82	--	--	--	35.27	
R-30AS	2	49.09	5.0	10.0	02/14/2014	14.53	12.30	--	--	--	36.79	
R-30AS	2	49.09	5.0	10.0	05/05/2014	14.45	11.67	--	--	--	37.42	
R-30AS	2	49.09	5.0	10.0	07/28/2014	14.47	11.28	--	--	--	37.81	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-30AS	2	49.09	5.0	10.0	10/27/2014	14.50	10.71	--	--	--	38.38	
R-30AD	2	49.53	32.0	5.0	02/06/2012	32.32	10.94	--	--	--	38.59	
R-30AD	2	49.53	32.0	5.0	04/23/2012	32.38	11.19	--	--	--	38.34	
R-30AD	2	49.53	32.0	5.0	08/06/2012	32.30	12.07	--	--	--	37.46	
R-30AD	2	49.53	32.0	5.0	11/06/2012	32.40	12.15	--	--	--	37.38	
R-30AD	2	49.53	32.0	5.0	02/27/2013	32.32	12.05	--	--	--	37.48	
R-30AD	2	49.53	32.0	5.0	04/30/2013	32.36	12.92	--	--	--	36.61	
R-30AD	2	49.53	32.0	5.0	07/29/2013	32.38	13.25	--	--	--	36.28	
R-30AD	2	49.53	32.0	5.0	10/29/2013	32.24	13.11	--	--	--	36.42	
R-30AD	2	49.53	32.0	5.0	02/14/2014	32.36	12.62	--	--	--	36.91	
R-30AD	2	49.53	32.0	5.0	05/05/2014	32.33	11.81	--	--	--	37.72	
R-30AD	2	49.53	32.0	5.0	07/28/2014	32.39	11.46	--	--	--	38.07	
R-30AD	2	49.53	32.0	5.0	10/27/2014	32.35	11.00	--	--	--	38.53	
R-30FS	2	49.10	60.0	5.0	02/06/2012	59.39	10.54	--	--	--	38.56	
R-30FS	2	49.10	60.0	5.0	04/23/2012	59.51	10.83	--	--	--	38.27	
R-30FS	2	49.10	60.0	5.0	08/06/2012	59.45	11.95	--	--	--	37.15	
R-30FS	2	49.10	60.0	5.0	11/06/2012	59.38	12.05	--	--	--	37.05	
R-30FS	2	49.10	60.0	5.0	02/27/2013	59.42	12.29	--	--	--	36.81	
R-30FS	2	49.10	60.0	5.0	04/30/2013	59.42	13.35	--	--	--	35.75	
R-30FS	2	49.10	60.0	5.0	07/29/2013	59.36	14.93	--	--	--	34.17	
R-30FS	2	49.10	60.0	5.0	10/29/2013	59.48	15.12	--	--	--	33.98	
R-30FS	2	49.10	60.0	5.0	02/14/2014	59.42	12.88	--	--	--	36.22	
R-30FS	2	49.10	60.0	5.0	05/05/2014	59.38	15.03	--	--	--	34.07	
R-30FS	2	49.10	60.0	5.0	07/28/2014	59.37	11.02	--	--	--	38.08	
R-30FS	2	49.10	60.0	5.0	10/27/2014	59.38	10.57	--	--	--	38.53	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-31AS	2	59.64	15.0	10.0	02/15/2012	24.95	20.46	--	--	--	39.18	
R-31AS	2	59.64	15.0	10.0	05/03/2012	25.00	20.52	--	--	--	39.12	
R-31AS	2	59.64	15.0	10.0	08/14/2012	25.00	21.74	--	--	--	37.90	
R-31AS	2	59.64	15.0	10.0	10/31/2012	24.99	21.63	--	--	--	38.01	
R-31AS	2	59.64	15.0	10.0	02/21/2013	24.92	20.54	--	--	--	39.10	
R-31AS	2	59.64	15.0	10.0	05/08/2013	24.92	21.33	--	--	--	38.31	
R-31AS	2	59.64	15.0	10.0	07/29/2013	24.93	22.17	--	--	--	37.47	
R-31AS	2	59.64	15.0	10.0	10/29/2013	25.01	22.36	--	--	--	37.28	
R-31AS	2	59.64	15.0	10.0	02/14/2014	24.92	21.51	--	--	--	38.13	
R-31AS	2	59.64	15.0	10.0	05/06/2014	24.92	21.36	--	--	--	38.28	
R-31AS	2	59.64	15.0	10.0	07/29/2014	24.98	21.92	--	--	--	37.72	
R-31AS	2	59.64	15.0	10.0	10/28/2014	24.98	21.81	--	--	--	37.83	
R-31AM	2	59.63	34.0	5.0	02/15/2012	39.18	20.70	--	--	--	38.93	
R-31AM	2	59.63	34.0	5.0	05/03/2012	38.87	20.50	--	--	--	39.13	
R-31AM	2	59.63	34.0	5.0	08/14/2012	38.80	21.78	--	--	--	37.85	
R-31AM	2	59.63	34.0	5.0	10/31/2012	38.80	21.65	--	--	--	37.98	
R-31AM	2	59.63	34.0	5.0	02/21/2013	38.82	20.40	--	--	--	39.23	
R-31AM	2	59.63	34.0	5.0	05/08/2013	38.80	21.31	--	--	--	38.32	
R-31AM	2	59.63	34.0	5.0	07/29/2013	38.80	22.17	--	--	--	37.46	
R-31AM	2	59.63	34.0	5.0	10/29/2013	53.43	22.30	--	--	--	37.33	
R-31AM	2	59.63	34.0	5.0	02/14/2014	38.82	21.54	--	--	--	38.09	
R-31AM	2	59.63	34.0	5.0	05/06/2014	38.78	21.28	--	--	--	38.35	
R-31AM	2	59.63	34.0	5.0	07/29/2014	38.73	21.91	--	--	--	37.72	
R-31AM	2	59.63	34.0	5.0	10/28/2014	38.77	21.77	--	--	--	37.86	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-31AD	2	59.54	49.0	5.0	02/15/2012	53.60	20.24	--	--	--	39.30	
R-31AD	2	59.54	49.0	5.0	05/03/2012	53.54	20.45	--	--	--	39.09	
R-31AD	2	59.54	49.0	5.0	08/14/2012	53.59	21.67	--	--	--	37.87	
R-31AD	2	59.54	49.0	5.0	10/31/2012	53.54	21.58	--	--	--	37.96	
R-31AD	2	59.54	49.0	5.0	02/21/2013	53.47	20.28	--	--	--	39.26	
R-31AD	2	59.54	49.0	5.0	05/08/2013	53.51	21.20	--	--	--	38.34	
R-31AD	2	59.54	49.0	5.0	07/29/2013	53.50	22.09	--	--	--	37.45	
R-31AD	2	59.54	49.0	5.0	10/29/2013	38.74	22.35	--	--	--	37.19	
R-31AD	2	59.54	49.0	5.0	02/14/2014	53.15	21.42	--	--	--	38.12	
R-31AD	2	59.54	49.0	5.0	05/06/2014	53.48	21.34	--	--	--	38.20	
R-31AD	2	59.54	49.0	5.0	07/29/2014	53.42	21.91	--	--	--	37.63	
R-31AD	2	59.54	49.0	5.0	10/28/2014	53.48	21.78	--	--	--	37.76	
R-31FS	2	59.43	68.0	5.0	02/15/2012	73.20	18.75	--	--	--	40.68	
R-31FS	2	59.43	68.0	5.0	05/03/2012	72.88	18.45	--	--	--	40.98	
R-31FS	2	59.43	68.0	5.0	08/14/2012	72.90	19.70	--	--	--	39.73	
R-31FS	2	59.43	68.0	5.0	10/31/2012	72.80	19.45	--	--	--	39.98	
R-31FS	2	59.43	68.0	5.0	02/21/2013	72.80	19.10	--	--	--	40.33	
R-31FS	2	59.43	68.0	5.0	05/08/2013	72.79	19.75	--	--	--	39.68	
R-31FS	2	59.43	68.0	5.0	07/29/2013	72.80	20.58	--	--	--	38.85	
R-31FS	2	59.43	68.0	5.0	10/29/2013	72.82	22.75	--	--	--	36.68	
R-31FS	2	59.43	68.0	5.0	02/14/2014	72.70	19.66	--	--	--	39.77	
R-31FS	2	59.43	68.0	5.0	05/06/2014	72.71	19.37	--	--	--	40.06	
R-31FS	2	59.43	68.0	5.0	07/29/2014	72.81	19.73	--	--	--	39.70	
R-31FS	2	59.43	68.0	5.0	10/28/2014	72.80	19.70	--	--	--	39.73	
R-32AS	2	64.34	19.5	15.0	02/07/2012	35.95	32.15	--	--	--	32.19	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-32AS	2	64.34	19.5	15.0	05/03/2012	35.66	31.85	--	--	--	32.49	
R-32AS	2	64.34	19.5	15.0	08/13/2012	35.60	31.90	--	--	--	32.44	
R-32AS	2	64.34	19.5	15.0	10/29/2012	35.55	33.15	--	--	--	31.19	
R-32AS	2	64.34	19.5	15.0	02/07/2013	35.59	33.45	--	--	--	30.89	
R-32AS	2	64.34	19.5	15.0	04/29/2013	35.55	34.43	--	--	--	29.91	
R-32AS	2	64.34	19.5	15.0	07/29/2013	35.54	35.19/IWG	--	--	--	--	Insufficient H2O to Gauge
R-32AS	2	64.34	19.5	15.0	10/28/2013	35.60	34.58	--	--	--	29.76	
R-32AS	2	64.34	19.5	15.0	02/14/2014	35.58	32.07	--	--	--	32.27	
R-32AS	2	64.34	19.5	15.0	05/05/2014	35.55	27.32	--	--	--	37.02	
R-32AS	2	64.34	19.5	15.0	07/28/2014	35.63	25.11	--	--	--	39.23	
R-32AS	2	64.34	19.5	15.0	10/27/2014	35.51	23.16	--	--	--	41.18	
R-32AD	2	64.55	54.5	5.0	02/07/2012	59.85	32.44	--	--	--	32.11	
R-32AD	2	64.55	54.5	5.0	05/03/2012	59.53	31.94	--	--	--	32.61	
R-32AD	2	64.55	54.5	5.0	08/13/2012	59.10	32.40	--	--	--	32.15	
R-32AD	2	64.55	54.5	5.0	10/29/2012	59.38	33.40	--	--	--	31.15	
R-32AD	2	64.55	54.5	5.0	02/07/2013	59.39	33.75	--	--	--	30.80	
R-32AD	2	64.55	54.5	5.0	04/29/2013	59.42	35.42	--	--	--	29.13	
R-32AD	2	64.55	54.5	5.0	07/29/2013	59.30	36.34	--	--	--	28.21	
R-32AD	2	64.55	54.5	5.0	10/28/2013	59.30	36.92	--	--	--	27.63	
R-32AD	2	64.55	54.5	5.0	02/14/2014	59.31	32.29	--	--	--	32.26	
R-32AD	2	64.55	54.5	5.0	05/05/2014	59.29	27.61	--	--	--	36.94	
R-32AD	2	64.55	54.5	5.0	07/28/2014	59.42	25.32	--	--	--	39.23	
R-32AD	2	64.55	54.5	5.0	10/27/2014	59.32	23.42	--	--	--	41.13	
R-33AS	2	64.17	18.0	15.0	02/13/2012	34.30	31.15	--	--	--	33.02	
R-33AS	2	64.17	18.0	15.0	05/04/2012	33.99	30.75	--	--	--	33.42	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-33AS	2	64.17	18.0	15.0	08/13/2012	33.90	30.94	--	--	--	33.23	
R-33AS	2	64.17	18.0	15.0	10/29/2012	33.94	32.36	--	--	--	31.81	
R-33AS	2	64.17	18.0	15.0	02/07/2013	34.00	32.48	--	--	--	31.69	
R-33AS	2	64.17	18.0	15.0	05/02/2013	33.90	33.50/IWG	--	--	--	--	Insufficient H2O to Gauge
R-33AS	2	64.17	18.0	15.0	07/29/2013	33.92	33.36/IWG	--	--	--	--	Insufficient H2O to Gauge
R-33AS	2	64.17	18.0	15.0	10/28/2013	34.04	33.96/IWG	--	--	--	--	Insufficient H2O to Gauge
R-33AS	2	64.17	18.0	15.0	02/14/2014	33.94	33.94/IWG	--	--	--	--	Well Dry
R-33AS	2	64.17	18.0	15.0	05/05/2014	33.92	27.26	--	--	--	36.91	
R-33AS	2	64.17	18.0	15.0	07/28/2014	34.82	24.84	--	--	--	39.33	
R-33AS	2	64.17	18.0	15.0	10/27/2014	33.93	22.94	--	--	--	41.23	
R-33AD	2	64.05	56.5	5.0	02/13/2012	62.46	31.30	--	--	--	32.75	
R-33AD	2	64.05	56.5	5.0	05/04/2012	62.09	30.74	--	--	--	33.31	
R-33AD	2	64.05	56.5	5.0	08/13/2012	62.05	31.75	--	--	--	32.30	
R-33AD	2	64.05	56.5	5.0	10/29/2012	61.91	32.71	--	--	--	31.34	
R-33AD	2	64.05	56.5	5.0	02/07/2013	62.02	32.55	--	--	--	31.50	
R-33AD	2	64.05	56.5	5.0	05/02/2013	62.03	34.65	--	--	--	29.40	
R-33AD	2	64.05	56.5	5.0	07/29/2013	61.90	35.69	--	--	--	28.36	
R-33AD	2	64.05	56.5	5.0	10/28/2013	62.00	36.29	--	--	--	27.76	
R-33AD	2	64.05	56.5	5.0	02/14/2014	61.99	32.75	--	--	--	31.30	
R-33AD	2	64.05	56.5	5.0	05/05/2014	61.92	27.11	--	--	--	36.94	
R-33AD	2	64.05	56.5	5.0	07/28/2014	62.01	24.82	--	--	--	39.23	
R-33AD	2	64.05	56.5	5.0	10/27/2014	62.00	22.90	--	--	--	41.15	
R-34AS	2	60.13	15.0	15.0	02/08/2012	30.95	26.30	--	--	--	33.83	
R-34AS	2	60.13	15.0	15.0	04/30/2012	30.54	26.42	--	--	--	33.71	
R-34AS	2	60.13	15.0	15.0	08/13/2012	30.52	26.52	--	--	--	33.61	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-34AS	2	60.13	15.0	15.0	11/01/2012	30.62	27.58	--	--	--	32.55	
R-34AS	2	60.13	15.0	15.0	02/06/2013	30.55	27.70	--	--	--	32.43	
R-34AS	2	60.13	15.0	15.0	05/06/2013	30.57	28.46	--	--	--	31.67	
R-34AS	2	60.13	15.0	15.0	07/29/2013	30.63	29.53	--	--	--	30.60	
R-34AS	2	60.13	15.0	15.0	10/28/2013	30.70	29.74	--	--	--	30.39	
R-34AS	2	60.13	15.0	15.0	02/14/2014	30.67	28.17	--	--	--	31.96	
R-34AS	2	60.13	15.0	15.0	05/05/2014	30.70	22.79	--	--	--	37.34	
R-34AS	2	60.13	15.0	15.0	07/28/2014	30.71	20.70	--	--	--	39.43	
R-34AS	2	60.13	15.0	15.0	10/27/2014	30.71	18.70	--	--	--	41.43	
R-34AD	2	60.31	53.5	5.0	02/08/2012	60.13	26.95	--	--	--	33.36	
R-34AD	2	60.31	53.5	5.0	04/30/2012	59.70	26.84	--	--	--	33.47	
R-34AD	2	60.31	53.5	5.0	08/13/2012	59.70	27.00	--	--	--	33.31	
R-34AD	2	60.31	53.5	5.0	11/01/2012	59.70	28.05	--	--	--	32.26	
R-34AD	2	60.31	53.5	5.0	02/06/2013	59.63	28.10	--	--	--	32.21	
R-34AD	2	60.31	53.5	5.0	05/06/2013	59.62	29.43	--	--	--	30.88	
R-34AD	2	60.31	53.5	5.0	07/29/2013	59.63	30.40	--	--	--	29.91	
R-34AD	2	60.31	53.5	5.0	10/28/2013	59.67	31.00	--	--	--	29.31	
R-34AD	2	60.31	53.5	5.0	02/14/2014	59.70	28.43	--	--	--	31.88	
R-34AD	2	60.31	53.5	5.0	05/05/2014	59.69	23.57	--	--	--	36.74	
R-34AD	2	60.31	53.5	5.0	07/28/2014	59.78	20.87	--	--	--	39.44	
R-34AD	2	60.31	53.5	5.0	10/27/2014	59.71	18.88	--	--	--	41.43	
R-35AS	2	59.75	14.5	15.0	02/14/2012	29.78	25.28	--	--	--	34.47	
R-35AS	2	59.75	14.5	15.0	04/27/2012	29.61	26.05	--	--	--	33.70	
R-35AS	2	59.75	14.5	15.0	08/13/2012	29.43	25.83	--	--	--	33.92	
R-35AS	2	59.75	14.5	15.0	11/01/2012	29.45	26.97	--	--	--	32.78	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-35AS	2	59.75	14.5	15.0	02/07/2013	29.60	27.35	--	--	--	32.40	
R-35AS	2	59.75	14.5	15.0	05/03/2013	29.52	28.45	--	--	--	31.30	
R-35AS	2	59.75	14.5	15.0	07/29/2013	29.82	28.92	--	--	--	30.83	
R-35AS	2	59.75	14.5	15.0	10/28/2013	30.23	28.93	--	--	--	30.82	
R-35AS	2	59.75	14.5	15.0	02/14/2014	30.15	28.09	--	--	--	31.66	
R-35AS	2	59.75	14.5	15.0	05/05/2014	30.10	22.41	--	--	--	37.34	
R-35AS	2	59.75	14.5	15.0	07/28/2014	30.24	20.42	--	--	--	39.33	
R-35AS	2	59.75	14.5	15.0	10/27/2014	30.22	18.32	--	--	--	41.43	
R-35AD	2	59.56	50.0	5.0	02/14/2012	56.15	25.20	--	--	--	34.36	
R-35AD	2	59.56	50.0	5.0	04/27/2012	55.74	25.88	--	--	--	33.68	
R-35AD	2	59.56	50.0	5.0	08/13/2012	55.74	25.84	--	--	--	33.72	
R-35AD	2	59.56	50.0	5.0	11/01/2012	55.72	26.90	--	--	--	32.66	
R-35AD	2	59.56	50.0	5.0	02/07/2013	55.70	27.30	--	--	--	32.26	
R-35AD	2	59.56	50.0	5.0	05/03/2013	55.65	28.55	--	--	--	31.01	
R-35AD	2	59.56	50.0	5.0	07/29/2013	55.71	29.38	--	--	--	30.18	
R-35AD	2	59.56	50.0	5.0	10/28/2013	55.71	29.99	--	--	--	29.57	
R-35AD	2	59.56	50.0	5.0	02/14/2014	55.70	27.81	--	--	--	31.75	
R-35AD	2	59.56	50.0	5.0	05/05/2014	55.70	22.28	--	--	--	37.28	
R-35AD	2	59.56	50.0	5.0	07/28/2014	55.84	20.05	--	--	--	39.51	
R-35AD	2	59.56	50.0	5.0	10/27/2014	55.72	18.14	--	--	--	41.42	
R-36AS	2	56.99	14.0	10.0	02/08/2012	23.55	20.95	--	--	--	36.04	
R-36AS	2	56.99	14.0	10.0	04/27/2012	23.56	20.93	--	--	--	36.06	
R-36AS	2	56.99	14.0	10.0	08/10/2012	23.75	20.90	--	--	--	36.09	
R-36AS	2	56.99	14.0	10.0	11/01/2012	23.52	21.76	--	--	--	35.23	
R-36AS	2	56.99	14.0	10.0	02/07/2013	23.53	22.24	--	--	--	34.75	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters
 Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-36AS	2	56.99	14.0	10.0	05/03/2013	23.38	22.98/IWG	--	--	--	--	Insufficient H2O to Gauge
R-36AS	2	56.99	14.0	10.0	07/29/2013	23.51	23.51/IWG	--	--	--	--	Well Dry
R-36AS	2	56.99	14.0	10.0	10/28/2013	23.70	23.40/IWG	--	--	--	--	Insufficient H2O to Gauge
R-36AS	2	56.99	14.0	10.0	02/14/2014	24.10	23.55/IWG	--	--	--	--	Insufficient H2O to Gauge
R-36AS	2	56.99	14.0	10.0	05/05/2014	23.86	18.71	--	--	--	38.28	
R-36AS	2	56.99	14.0	10.0	07/28/2014	23.78	17.00	--	--	--	39.99	
R-36AS	2	56.99	14.0	10.0	10/27/2014	20.82	14.94	--	--	--	42.05	
R-36AD	2	57.25	48.5	5.0	02/08/2012	54.92	21.10	--	--	--	36.15	
R-36AD	2	57.25	48.5	5.0	04/27/2012	54.56	21.08	--	--	--	36.17	
R-36AD	2	57.25	48.5	5.0	08/10/2012	54.57	20.94	--	--	--	36.31	
R-36AD	2	57.25	48.5	5.0	11/01/2012	54.50	21.89	--	--	--	35.36	
R-36AD	2	57.25	48.5	5.0	02/07/2013	54.50	22.34	--	--	--	34.91	
R-36AD	2	57.25	48.5	5.0	05/03/2013	54.50	23.07	--	--	--	34.18	
R-36AD	2	57.25	48.5	5.0	07/29/2013	54.48	23.80	--	--	--	33.45	
R-36AD	2	57.25	48.5	5.0	10/28/2013	54.50	24.29	--	--	--	32.96	
R-36AD	2	57.25	48.5	5.0	02/14/2014	54.47	23.54	--	--	--	33.71	
R-36AD	2	57.25	48.5	5.0	05/05/2014	54.47	18.99	--	--	--	38.26	
R-36AD	2	57.25	48.5	5.0	07/28/2014	54.48	17.12	--	--	--	40.13	
R-36AD	2	57.25	48.5	5.0	10/27/2014	54.47	15.20	--	--	--	42.05	
R-37AS	2	58.39	11.5	15.0	02/08/2012	27.05	22.65	--	--	--	35.74	
R-37AS	2	58.39	11.5	15.0	04/27/2012	26.80	22.71	--	--	--	35.68	
R-37AS	2	58.39	11.5	15.0	08/10/2012	26.70	22.52	--	--	--	35.87	
R-37AS	2	58.39	11.5	15.0	11/01/2012	26.90	23.61	--	--	--	34.78	
R-37AS	2	58.39	11.5	15.0	02/07/2013	26.72	24.08	--	--	--	34.31	
R-37AS	2	58.39	11.5	15.0	05/03/2013	26.72	24.80	--	--	--	33.59	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-37AS	2	58.39	11.5	15.0	07/29/2013	26.70	25.46	--	--	--	32.93	
R-37AS	2	58.39	11.5	15.0	10/28/2013	27.21	26.11	--	--	--	32.28	
R-37AS	2	58.39	11.5	15.0	02/14/2014	26.92	25.37	--	--	--	33.02	
R-37AS	2	58.39	11.5	15.0	05/05/2014	27.13	20.33	--	--	--	38.06	
R-37AS	2	58.39	11.5	15.0	07/28/2014	27.18	18.43	--	--	--	39.96	
R-37AS	2	58.39	11.5	15.0	10/27/2014	26.80	16.42	--	--	--	41.97	
R-37AD	2	58.16	54.0	5.0	02/08/2012	60.35	22.52	--	--	--	35.64	
R-37AD	2	58.16	54.0	5.0	04/27/2012	60.00	22.52	--	--	--	35.64	
R-37AD	2	58.16	54.0	5.0	08/10/2012	60.02	22.38	--	--	--	35.78	
R-37AD	2	58.16	54.0	5.0	11/01/2012	59.95	23.45	--	--	--	34.71	
R-37AD	2	58.16	54.0	5.0	02/07/2013	59.99	23.90	--	--	--	34.26	
R-37AD	2	58.16	54.0	5.0	05/03/2013	59.96	24.65	--	--	--	33.51	
R-37AD	2	58.16	54.0	5.0	07/29/2013	59.95	25.43	--	--	--	32.73	
R-37AD	2	58.16	54.0	5.0	10/28/2013	60.00	25.92	--	--	--	32.24	
R-37AD	2	58.16	54.0	5.0	02/14/2014	59.93	25.08	--	--	--	33.08	
R-37AD	2	58.16	54.0	5.0	05/05/2014	59.98	20.14	--	--	--	38.02	
R-37AD	2	58.16	54.0	5.0	07/28/2014	60.07	18.21	--	--	--	39.95	
R-37AD	2	58.16	54.0	5.0	10/27/2014	59.96	16.16	--	--	--	42.00	
R-38AS	2	61.86	16.5	15.0	02/08/2012	32.72	28.92	--	--	--	32.94	
R-38AS	2	61.86	16.5	15.0	04/27/2012	32.37	29.30	--	--	--	32.56	
R-38AS	2	61.86	16.5	15.0	08/09/2012	32.38	28.50	--	--	--	33.36	
R-38AS	2	61.86	16.5	15.0	11/01/2012	32.34	29.71	--	--	--	32.15	
R-38AS	2	61.86	16.5	15.0	02/07/2013	32.32	30.55	--	--	--	31.31	
R-38AS	2	61.86	16.5	15.0	05/02/2013	32.32	31.32	--	--	--	30.54	
R-38AS	2	61.86	16.5	15.0	07/29/2013	32.32	32.32/IWG	--	--	--	--	Well Dry

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-38AS	2	61.86	16.5	15.0	10/28/2013	32.34	32.34/IWG	--	--	--	--	Well Dry
R-38AS	2	61.86	16.5	15.0	02/14/2014	32.33	32.33/IWG	--	--	--	--	Well Dry
R-38AS	2	61.86	16.5	15.0	05/05/2014	32.31	25.00	--	--	--	36.86	
R-38AS	2	61.86	16.5	15.0	07/28/2014	32.42	22.61	--	--	--	39.25	
R-38AS	2	61.86	16.5	15.0	10/27/2014	32.33	20.72	--	--	--	41.14	
R-38AM	2	61.88	40.0	5.0	02/08/2012	46.16	29.16	--	--	--	32.72	
R-38AM	2	61.88	40.0	5.0	04/27/2012	45.80	29.49	--	--	--	32.39	
R-38AM	2	61.88	40.0	5.0	08/09/2012	45.76	28.50	--	--	--	33.38	
R-38AM	2	61.88	40.0	5.0	11/01/2012	45.80	29.82	--	--	--	32.06	
R-38AM	2	61.88	40.0	5.0	02/07/2013	45.73	30.86	--	--	--	31.02	
R-38AM	2	61.88	40.0	5.0	05/02/2013	45.80	32.38	--	--	--	29.50	
R-38AM	2	61.88	40.0	5.0	07/29/2013	45.73	33.50	--	--	--	28.38	
R-38AM	2	61.88	40.0	5.0	10/28/2013	45.72	34.30	--	--	--	27.58	
R-38AM	2	61.88	40.0	5.0	02/14/2014	45.78	31.92	--	--	--	29.96	
R-38AM	2	61.88	40.0	5.0	05/05/2014	45.72	25.05	--	--	--	36.83	
R-38AM	2	61.88	40.0	5.0	07/28/2014	45.86	22.62	--	--	--	39.26	
R-38AM	2	61.88	40.0	5.0	10/27/2014	45.69	20.80	--	--	--	41.08	
R-38AD	2	62.15	57.5	5.0	02/08/2012	64.05	29.55	--	--	--	32.60	
R-38AD	2	62.15	57.5	5.0	04/27/2012	63.70	29.90	--	--	--	32.25	
R-38AD	2	62.15	57.5	5.0	08/09/2012	63.68	28.79	--	--	--	33.36	
R-38AD	2	62.15	57.5	5.0	11/01/2012	63.68	30.09	--	--	--	32.06	
R-38AD	2	62.15	57.5	5.0	02/07/2013	63.61	31.30	--	--	--	30.85	
R-38AD	2	62.15	57.5	5.0	05/02/2013	63.66	32.80	--	--	--	29.35	
R-38AD	2	62.15	57.5	5.0	07/29/2013	63.50	33.86	--	--	--	28.29	
R-38AD	2	62.15	57.5	5.0	10/28/2013	63.63	34.70	--	--	--	27.45	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-38AD	2	62.15	57.5	5.0	02/14/2014	63.64	32.33	--	--	--	29.82	
R-38AD	2	62.15	57.5	5.0	05/05/2014	63.60	25.38	--	--	--	36.77	
R-38AD	2	62.15	57.5	5.0	07/28/2014	63.72	22.92	--	--	--	39.23	
R-38AD	2	62.15	57.5	5.0	10/27/2014	63.64	21.05	--	--	--	41.10	
R-39AS	2	63.90	14.5	10.0	02/14/2012	25.56	25.50/IWG	--	--	--	--	Insufficient H2O to Gauge
R-39AS	2	63.90	14.5	10.0	04/30/2012	25.20	25.08/IWG	--	--	--	--	Insufficient H2O to Gauge
R-39AS	2	63.90	14.5	10.0	08/09/2012	25.18	25.08/IWG	--	--	--	--	Insufficient H2O to Gauge
R-39AS	2	63.90	14.5	10.0	11/07/2012	25.13	25.05/IWG	--	--	--	--	Insufficient H2O to Gauge
R-39AS	2	63.90	14.5	10.0	02/20/2013	25.09	25.02/IWG	--	--	--	--	Insufficient H2O to Gauge
R-39AS	2	63.90	14.5	10.0	05/03/2013	25.15	25.04/IWG	--	--	--	--	Insufficient H2O to Gauge
R-39AS	2	63.90	14.5	10.0	07/29/2013	25.14	25.04/IWG	--	--	--	--	Insufficient H2O to Gauge
R-39AS	2	63.90	14.5	10.0	10/28/2013	25.17	25.05/IWG	--	--	--	--	Insufficient H2O to Gauge
R-39AS	2	63.90	14.5	10.0	02/14/2014	25.12	25.10/IWG	--	--	--	--	Insufficient H2O to Gauge
R-39AS	2	63.90	14.5	10.0	05/05/2014	25.16	25.16/IWG	--	--	--	--	Well Dry
R-39AS	2	63.90	14.5	10.0	07/28/2014	25.18	25.18/IWG	--	--	--	--	Well Dry
R-39AS	2	63.90	14.5	10.0	10/27/2014	25.15	22.33	--	--	--	41.57	
R-39AM	2	63.84	38.5	5.0	02/14/2012	43.60	28.32	--	--	--	35.52	
R-39AM	2	63.84	38.5	5.0	04/30/2012	43.27	28.50	--	--	--	35.34	
R-39AM	2	63.84	38.5	5.0	08/09/2012	43.28	28.50	--	--	--	35.34	
R-39AM	2	63.84	38.5	5.0	11/07/2012	43.19	29.70	--	--	--	34.14	
R-39AM	2	63.84	38.5	5.0	02/20/2013	43.21	30.72	--	--	--	33.12	
R-39AM	2	63.84	38.5	5.0	05/03/2013	43.27	31.28	--	--	--	32.56	
R-39AM	2	63.84	38.5	5.0	07/29/2013	43.21	32.13	--	--	--	31.71	
R-39AM	2	63.84	38.5	5.0	10/28/2013	43.24	32.73	--	--	--	31.11	
R-39AM	2	63.84	38.5	5.0	02/14/2014	43.02	31.07	--	--	--	32.77	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters
 Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-39AM	2	63.84	38.5	5.0	05/05/2014	43.41	26.42	--	--	--	37.42	
R-39AM	2	63.84	38.5	5.0	07/28/2014	43.34	24.14	--	--	--	39.70	
R-39AM	2	63.84	38.5	5.0	10/27/2014	43.27	22.33	--	--	--	41.51	
R-39AD	2	63.88	54.5	5.0	02/14/2012	60.65	28.50	--	--	--	35.38	
R-39AD	2	63.88	54.5	5.0	04/30/2012	60.25	28.63	--	--	--	35.25	
R-39AD	2	63.88	54.5	5.0	08/09/2012	60.24	28.64	--	--	--	35.24	
R-39AD	2	63.88	54.5	5.0	11/07/2012	60.21	29.81	--	--	--	34.07	
R-39AD	2	63.88	54.5	5.0	02/20/2013	60.21	31.04	--	--	--	32.84	
R-39AD	2	63.88	54.5	5.0	05/03/2013	60.22	31.43	--	--	--	32.45	
R-39AD	2	63.88	54.5	5.0	07/29/2013	60.19	32.32	--	--	--	31.56	
R-39AD	2	63.88	54.5	5.0	10/28/2013	60.19	32.95	--	--	--	30.93	
R-39AD	2	63.88	54.5	5.0	02/14/2014	60.05	31.05	--	--	--	32.83	
R-39AD	2	63.88	54.5	5.0	05/05/2014	60.24	26.53	--	--	--	37.35	
R-39AD	2	63.88	54.5	5.0	07/28/2014	60.30	24.34	--	--	--	39.54	
R-39AD	2	63.88	54.5	5.0	10/27/2014	60.29	22.29	--	--	--	41.59	
R-40AS	2	67.58	25.0	15.0	02/07/2012	41.04	32.70	--	--	--	34.88	
R-40AS	2	67.58	25.0	15.0	04/26/2012	41.00	33.25	--	--	--	34.33	
R-40AS	2	67.58	25.0	15.0	08/09/2012	41.00	33.20	--	--	--	34.38	
R-40AS	2	67.58	25.0	15.0	11/06/2012	40.95	34.36	--	--	--	33.22	
R-40AS	2	67.58	25.0	15.0	02/18/2013	40.95	35.74	--	--	--	31.84	
R-40AS	2	67.58	25.0	15.0	04/30/2013	40.98	36.68	--	--	--	30.90	
R-40AS	2	67.58	25.0	15.0	07/30/2013	40.93	37.99	--	--	--	29.59	
R-40AS	2	67.58	25.0	15.0	10/29/2013	40.94	38.94	--	--	--	28.64	
R-40AS	2	67.58	25.0	15.0	02/14/2014	40.95	35.84	--	--	--	31.74	
R-40AS	2	67.58	25.0	15.0	05/05/2014	40.96	30.72	--	--	--	36.86	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-40AS	2	67.58	25.0	15.0	07/28/2014	40.95	28.41	--	--	--	39.17	
R-40AS	2	67.58	25.0	15.0	10/27/2014	40.95	26.63	--	--	--	40.95	
R-40AM	2	67.62	46.5	5.0	02/07/2012	52.54	32.68	--	--	--	34.94	
R-40AM	2	67.62	46.5	5.0	04/26/2012	52.58	33.24	--	--	--	34.38	
R-40AM	2	67.62	46.5	5.0	08/09/2012	52.55	33.37	--	--	--	34.25	
R-40AM	2	67.62	46.5	5.0	11/06/2012	52.48	34.40	--	--	--	33.22	
R-40AM	2	67.62	46.5	5.0	02/18/2013	52.50	35.75	--	--	--	31.87	
R-40AM	2	67.62	46.5	5.0	04/30/2013	52.50	36.70	--	--	--	30.92	
R-40AM	2	67.62	46.5	5.0	07/30/2013	52.50	38.02	--	--	--	29.60	
R-40AM	2	67.62	46.5	5.0	10/29/2013	52.46	38.86	--	--	--	28.76	
R-40AM	2	67.62	46.5	5.0	02/14/2014	52.50	35.93	--	--	--	31.69	
R-40AM	2	67.62	46.5	5.0	05/05/2014	52.54	30.84	--	--	--	36.78	
R-40AM	2	67.62	46.5	5.0	07/28/2014	52.48	28.61	--	--	--	39.01	
R-40AM	2	67.62	46.5	5.0	10/27/2014	52.51	26.68	--	--	--	40.94	
R-40AD	2	67.51	63.0	5.0	02/07/2012	69.04	32.51	--	--	--	35.00	
R-40AD	2	67.51	63.0	5.0	04/26/2012	69.04	33.20	--	--	--	34.31	
R-40AD	2	67.51	63.0	5.0	08/09/2012	69.02	33.16	--	--	--	34.35	
R-40AD	2	67.51	63.0	5.0	11/06/2012	69.00	34.35	--	--	--	33.16	
R-40AD	2	67.51	63.0	5.0	02/18/2013	68.90	35.60	--	--	--	31.91	
R-40AD	2	67.51	63.0	5.0	04/30/2013	68.92	36.60	--	--	--	30.91	
R-40AD	2	67.51	63.0	5.0	07/30/2013	68.98	37.92	--	--	--	29.59	
R-40AD	2	67.51	63.0	5.0	10/29/2013	68.98	38.83	--	--	--	28.68	
R-40AD	2	67.51	63.0	5.0	02/14/2014	69.05	35.68	--	--	--	31.83	
R-40AD	2	67.51	63.0	5.0	05/05/2014	68.98	30.65	--	--	--	36.86	
R-40AD	2	67.51	63.0	5.0	07/28/2014	69.00	28.31	--	--	--	39.20	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-40AD	2	67.51	63.0	5.0	10/27/2014	69.04	26.58	--	--	--	40.93	
R-41AS	2	62.70	14.5	10.0	02/08/2012	25.28	19.83	--	--	--	42.87	
R-41AS	2	62.70	14.5	10.0	04/23/2012	25.34	20.02	--	--	--	42.68	
R-41AS	2	62.66	14.5	10.0	08/07/2012	25.20	20.18	--	--	--	42.48	
R-41AS	2	62.66	14.5	10.0	11/07/2012	25.36	20.76	--	--	--	41.90	
R-41AS	2	62.66	14.5	10.0	02/18/2013	25.30	20.94	--	--	--	41.72	
R-41AS	2	62.66	14.5	10.0	05/01/2013	25.15	21.05	--	--	--	41.61	
R-41AS	2	62.66	14.5	10.0	07/29/2013	25.20	21.30	--	--	--	41.36	
R-41AS	2	62.66	14.5	10.0	10/28/2013	25.30	21.74	--	--	--	40.92	
R-41AS	2	62.66	14.5	10.0	02/14/2014	24.92	22.02	--	--	--	40.64	
R-41AS	2	62.66	14.5	10.0	05/05/2014	25.24	21.41	--	--	--	41.25	
R-41AS	2	62.66	14.5	10.0	07/28/2014	25.33	20.64	--	--	--	42.02	
R-41AS	2	62.66	14.5	10.0	10/27/2014	25.22	20.31	--	--	--	42.35	
R-41AD	2	62.48	30.0	5.0	02/08/2012	35.53	19.71	--	--	--	42.77	
R-41AD	2	62.48	30.0	5.0	04/23/2012	35.50	19.75	--	--	--	42.73	
R-41AD	2	62.42	30.0	5.0	08/07/2012	35.51	20.10	--	--	--	42.32	
R-41AD	2	62.42	30.0	5.0	11/07/2012	35.48	20.60	--	--	--	41.82	
R-41AD	2	62.42	30.0	5.0	02/18/2013	35.48	20.80	--	--	--	41.62	
R-41AD	2	62.42	30.0	5.0	05/01/2013	35.50	20.94	--	--	--	41.48	
R-41AD	2	62.42	30.0	5.0	07/29/2013	35.50	21.20	--	--	--	41.22	
R-41AD	2	62.42	30.0	5.0	10/28/2013	35.42	21.55	--	--	--	40.87	
R-41AD	2	62.42	30.0	5.0	02/14/2014	35.30	21.83	--	--	--	40.59	
R-41AD	2	62.42	30.0	5.0	05/05/2014	35.43	21.22	--	--	--	41.20	
R-41AD	2	62.42	30.0	5.0	07/28/2014	35.43	20.50	--	--	--	41.92	
R-41AD	2	62.42	30.0	5.0	10/27/2014	35.46	20.02	--	--	--	42.40	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-42AS	2	63.58	17.5	15.0	02/08/2012	33.53	27.32	--	--	--	36.26	
R-42AS	2	63.58	17.5	15.0	04/26/2012	33.54	27.77	--	--	--	35.81	
R-42AS	2	63.55	17.5	15.0	08/13/2012	33.49	28.42	--	--	--	35.13	
R-42AS	2	63.55	17.5	15.0	11/06/2012	33.51	29.50	--	--	--	34.05	
R-42AS	2	63.55	17.5	15.0	02/19/2013	33.47	30.80	--	--	--	32.75	
R-42AS	2	63.55	17.5	15.0	05/03/2013	33.46	31.60	--	--	--	31.95	
R-42AS	2	63.55	17.5	15.0	07/30/2013	33.50	32.44	--	--	--	31.11	
R-42AS	2	63.55	17.5	15.0	10/29/2013	33.46	33.44/IWG	--	--	--	--	Insufficient H2O to Gauge
R-42AS	2	63.55	17.5	15.0	02/14/2014	33.44	33.42/IWG	--	--	--	--	Insufficient H2O to Gauge
R-42AS	2	63.55	17.5	15.0	05/05/2014	33.54	27.04	--	--	--	36.51	
R-42AS	2	63.55	17.5	15.0	07/28/2014	33.51	24.64	--	--	--	38.91	
R-42AS	2	63.55	17.5	15.0	10/28/2014	33.50	23.10	--	--	--	40.45	
R-42AM	2	63.34	43.5	5.0	02/08/2012	49.25	27.51	--	--	--	35.83	
R-42AM	2	63.34	43.5	5.0	04/26/2012	49.28	28.08	--	--	--	35.26	
R-42AM	2	63.30	43.5	5.0	08/13/2012	49.25	28.78	--	--	--	34.52	
R-42AM	2	63.30	43.5	5.0	11/06/2012	49.22	29.70	--	--	--	33.60	
R-42AM	2	63.30	43.5	5.0	02/19/2013	49.14	30.96	--	--	--	32.34	
R-42AM	2	63.30	43.5	5.0	05/03/2013	49.18	31.90	--	--	--	31.40	
R-42AM	2	63.30	43.5	5.0	07/30/2013	49.20	33.49	--	--	--	29.81	
R-42AM	2	63.30	43.5	5.0	10/29/2013	49.20	34.45	--	--	--	28.85	
R-42AM	2	63.30	43.5	5.0	02/14/2014	49.21	31.34	--	--	--	31.96	
R-42AM	2	63.30	43.5	5.0	05/05/2014	49.27	26.56	--	--	--	36.74	
R-42AM	2	63.30	43.5	5.0	07/28/2014	49.20	24.32	--	--	--	38.98	
R-42AM	2	63.30	43.5	5.0	10/28/2014	49.27	22.72	--	--	--	40.58	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-42AD	2	63.05	61.0	5.0	02/08/2012	66.97	27.20	--	--	--	35.85	
R-42AD	2	63.05	61.0	5.0	04/26/2012	66.89	27.85	--	--	--	35.20	
R-42AD	2	63.01	61.0	5.0	08/13/2012	66.88	28.49	--	--	--	34.52	
R-42AD	2	63.01	61.0	5.0	11/06/2012	66.81	29.40	--	--	--	33.61	
R-42AD	2	63.01	61.0	5.0	02/19/2013	66.76	30.59	--	--	--	32.42	
R-42AD	2	63.01	61.0	5.0	05/03/2013	66.80	31.65	--	--	--	31.36	
R-42AD	2	63.01	61.0	5.0	07/30/2013	66.81	33.18	--	--	--	29.83	
R-42AD	2	63.01	61.0	5.0	10/29/2013	66.78	34.17	--	--	--	28.84	
R-42AD	2	63.01	61.0	5.0	02/14/2014	66.82	31.01	--	--	--	32.00	
R-42AD	2	63.01	61.0	5.0	05/05/2014	66.87	26.24	--	--	--	36.77	
R-42AD	2	63.01	61.0	5.0	07/28/2014	66.81	24.00	--	--	--	39.01	
R-42AD	2	63.01	61.0	5.0	10/28/2014	66.90	22.46	--	--	--	40.55	
R-43AS	2	68.89	25.0	15.0	02/16/2012	36.09	35.61	--	--	--	33.28	
R-43AS	2	68.89	25.0	15.0	04/30/2012	40.68	36.60	--	--	--	32.29	
R-43AS	2	68.89	25.0	15.0	08/17/2012	40.76	36.73	--	--	--	32.16	
R-43AS	2	68.89	25.0	15.0	10/31/2012	40.64	38.16	--	--	--	30.73	
R-43AS	2	68.89	25.0	15.0	02/06/2013	40.66	38.45	--	--	--	30.44	
R-43AS	2	68.89	25.0	15.0	05/06/2013	40.64	39.14	--	--	--	29.75	
R-43AS	2	68.89	25.0	15.0	07/30/2013	40.63	39.62	--	--	--	29.27	
R-43AS	2	68.89	25.0	15.0	10/28/2013	40.60	39.30	--	--	--	29.59	
R-43AS	2	68.89	25.0	15.0	02/14/2014	40.64	36.60	--	--	--	32.29	
R-43AS	2	68.89	25.0	15.0	05/05/2014	40.70	32.03	--	--	--	36.86	
R-43AS	2	68.89	25.0	15.0	07/29/2014	40.66	29.63	--	--	--	39.26	
R-43AS	2	68.89	25.0	15.0	10/28/2014	40.69	27.77	--	--	--	41.12	
R-43AS-R	2	68.91	30.0	15.0	08/17/2012	44.65	36.99	--	--	--	31.92	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-43AS-R	2	68.91	30.0	15.0	09/05/2012	44.63	36.97	--	--	--	31.94	
R-43AS-R	2	68.91	30.0	15.0	09/12/2012	44.58	37.15	--	--	--	31.76	
R-43AS-R	2	68.91	30.0	15.0	10/31/2012	44.59	38.31	--	--	--	30.60	
R-43AS-R	2	68.91	30.0	15.0	02/06/2013	44.58	38.68	--	--	--	30.23	
R-43AS-R	2	68.91	30.0	15.0	05/06/2013	44.55	39.17	--	--	--	29.74	
R-43AS-R	2	68.91	30.0	15.0	07/30/2013	44.54	40.71	--	--	--	28.20	
R-43AS-R	2	68.91	30.0	15.0	10/29/2013	44.55	40.65	--	--	--	28.26	
R-43AS-R	2	68.91	30.0	15.0	02/14/2014	44.50	36.81	--	--	--	32.10	
R-43AS-R	2	68.91	30.0	15.0	05/05/2014	44.61	32.19	--	--	--	36.72	
R-43AS-R	2	68.91	30.0	15.0	07/29/2014	44.55	29.69	--	--	--	39.22	
R-43AS-R	2	68.91	30.0	15.0	10/28/2014	44.60	27.85	--	--	--	41.06	
R-43AD	2	69.17	61.0	5.0	02/16/2012	66.15	36.05	--	--	--	33.12	
R-43AD	2	69.17	61.0	5.0	04/30/2012	66.09	36.98	--	--	--	32.19	
R-43AD	2	69.17	61.0	5.0	08/17/2012	66.19	37.40	--	--	--	31.77	
R-43AD	2	69.17	61.0	5.0	10/31/2012	66.05	38.64	--	--	--	30.53	
R-43AD	2	69.17	61.0	5.0	02/06/2013	66.15	38.82	--	--	--	30.35	
R-43AD	2	69.17	61.0	5.0	05/06/2013	66.14	40.23	--	--	--	28.94	
R-43AD	2	69.17	61.0	5.0	07/30/2013	66.10	41.37	--	--	--	27.80	
R-43AD	2	69.17	61.0	5.0	10/28/2013	66.10	41.42	--	--	--	27.75	
R-43AD	2	69.17	61.0	5.0	02/14/2014	66.00	36.92	--	--	--	32.25	
R-43AD	2	69.17	61.0	5.0	05/05/2014	66.19	32.20	--	--	--	36.97	
R-43AD	2	69.17	61.0	5.0	07/29/2014	66.18	29.83	--	--	--	39.34	
R-43AD	2	69.17	61.0	5.0	10/28/2014	66.15	27.99	--	--	--	41.18	
R-44AS	2	73.11	26.0	15.0	02/14/2012	40.81	39.11	--	--	--	34.00	
R-44AS	2	73.11	26.0	15.0	05/01/2012	40.50	40.06/IWG	--	--	--	--	Insufficient H2O to Gauge

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-44AS	2	73.11	26.0	15.0	08/16/2012	40.55	39.95	--	--	--	33.16	
R-44AS	2	73.11	26.0	15.0	11/01/2012	40.45	40.42/IWG	--	--	--	--	Insufficient H2O to Gauge
R-44AS	2	73.11	26.0	15.0	02/07/2013	40.44	40.44/IWG	--	--	--	--	Well Dry
R-44AS	2	73.11	26.0	15.0	05/06/2013	40.51	40.51/IWG	--	--	--	--	Well Dry
R-44AS	2	73.11	26.0	15.0	07/30/2013	40.45	40.45/IWG	--	--	--	--	Well Dry
R-44AS	2	73.11	26.0	15.0	10/28/2013	40.45	40.45/IWG	--	--	--	--	Well Dry
R-44AS	2	73.11	26.0	15.0	02/14/2014	40.44	40.44/IWG	--	--	--	--	Well Dry
R-44AS	2	73.11	26.0	15.0	05/05/2014	40.52	36.12	--	--	--	36.99	
R-44AS	2	73.11	26.0	15.0	07/29/2014	40.45	33.64	--	--	--	39.47	
R-44AS	2	73.11	26.0	15.0	10/28/2014	40.46	31.78	--	--	--	41.33	
R-44AM	2	73.17	55.0	5.0	02/14/2012	59.18	39.50	--	--	--	33.67	
R-44AM	2	73.17	55.0	5.0	05/01/2012	59.20	40.62	--	--	--	32.55	
R-44AM	2	73.17	55.0	5.0	08/17/2012	59.95	40.76	--	--	--	32.41	
R-44AM	2	73.17	55.0	5.0	11/01/2012	59.86	41.80	--	--	--	31.37	
R-44AM	2	73.17	55.0	5.0	02/07/2013	59.86	42.28	--	--	--	30.89	
R-44AM	2	73.17	55.0	5.0	05/06/2013	59.94	43.65	--	--	--	29.52	
R-44AM	2	73.17	55.0	5.0	07/30/2013	60.63	44.87	--	--	--	28.30	
R-44AM	2	73.17	55.0	5.0	10/28/2013	60.62	44.92	--	--	--	28.25	
R-44AM	2	73.17	55.0	5.0	02/14/2014	60.05	40.83	--	--	--	32.34	
R-44AM	2	73.17	55.0	5.0	05/05/2014	60.14	36.13	--	--	--	37.04	
R-44AM	2	73.17	55.0	5.0	07/29/2014	60.07	33.68	--	--	--	39.49	
R-44AM	2	73.17	55.0	5.0	10/28/2014	59.98	31.87	--	--	--	41.30	
R-44AD	2	73.32	70.5	5.0	02/14/2012	75.68	39.76	--	--	--	33.56	
R-44AD	2	73.32	70.5	5.0	05/01/2012	75.60	40.82	--	--	--	32.50	
R-44AD	2	73.32	70.5	5.0	08/16/2012	75.73	40.87	--	--	--	32.45	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-44AD	2	73.32	70.5	5.0	11/01/2012	75.60	42.04	--	--	--	31.28	
R-44AD	2	73.32	70.5	5.0	02/06/2013	75.57	42.50	--	--	--	30.82	
R-44AD	2	73.32	70.5	5.0	05/06/2013	75.70	43.80	--	--	--	29.52	
R-44AD	2	73.32	70.5	5.0	07/30/2013	75.59	45.17	--	--	--	28.15	
R-44AD	2	73.32	70.5	5.0	10/28/2013	75.59	45.12	--	--	--	28.20	
R-44AD	2	73.32	70.5	5.0	02/14/2014	75.60	41.07	--	--	--	32.25	
R-44AD	2	73.32	70.5	5.0	05/05/2014	75.54	36.35	--	--	--	36.97	
R-44AD	2	73.32	70.5	5.0	07/29/2014	75.60	33.90	--	--	--	39.42	
R-44AD	2	73.32	70.5	5.0	10/28/2014	75.63	32.14	--	--	--	41.18	
R-45AS	2	73.01	28.0	15.0	02/08/2012	44.32	36.78	--	--	--	36.23	
R-45AS	2	73.01	28.0	15.0	04/30/2012	44.20	37.23	--	--	--	35.78	
R-45AS	2	73.01	28.0	15.0	08/13/2012	44.24	37.98	--	--	--	35.03	
R-45AS	2	73.01	28.0	15.0	11/06/2012	44.20	38.86	--	--	--	34.15	
R-45AS	2	73.01	28.0	15.0	02/19/2013	44.10	40.22	--	--	--	32.79	
R-45AS	2	73.01	28.0	15.0	04/30/2013	44.20	41.03	--	--	--	31.98	
R-45AS	2	73.01	28.0	15.0	07/30/2013	44.18	42.46	--	--	--	30.55	
R-45AS	2	73.01	28.0	15.0	10/29/2013	44.16	43.71/IWG	--	--	--	--	Insufficient H2O to Gauge
R-45AS	2	73.01	28.0	15.0	02/14/2014	44.14	41.50	--	--	--	31.51	
R-45AS	2	73.01	28.0	15.0	05/05/2014	44.20	36.41	--	--	--	36.60	
R-45AS	2	73.01	28.0	15.0	07/28/2014	44.18	34.10	--	--	--	38.91	
R-45AS	2	73.01	28.0	15.0	10/27/2014	44.19	32.52	--	--	--	40.49	
R-45AM	2	73.40	54.0	5.0	02/08/2012	59.94	37.54	--	--	--	35.86	
R-45AM	2	73.40	54.0	5.0	04/30/2012	59.97	37.81	--	--	--	35.59	
R-45AM	2	73.40	54.0	5.0	08/13/2012	59.92	38.70	--	--	--	34.70	
R-45AM	2	73.40	54.0	5.0	11/06/2012	59.90	39.56	--	--	--	33.84	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-45AM	2	73.40	54.0	5.0	02/19/2013	59.90	40.72	--	--	--	32.68	
R-45AM	2	73.40	54.0	5.0	04/30/2013	59.82	41.73	--	--	--	31.67	
R-45AM	2	73.40	54.0	5.0	07/30/2013	59.93	43.23	--	--	--	30.17	
R-45AM	2	73.40	54.0	5.0	10/29/2013	59.93	44.18	--	--	--	29.22	
R-45AM	2	73.40	54.0	5.0	02/14/2014	59.93	41.35	--	--	--	32.05	
R-45AM	2	73.40	54.0	5.0	05/05/2014	59.85	36.64	--	--	--	36.76	
R-45AM	2	73.40	54.0	5.0	07/28/2014	59.91	34.34	--	--	--	39.06	
R-45AM	2	73.40	54.0	5.0	10/27/2014	59.89	32.78	--	--	--	40.62	
R-45AD	2	73.62	71.0	5.0	02/08/2012	75.23	37.61	--	--	--	36.01	
R-45AD	2	73.62	71.0	5.0	04/30/2012	75.29	37.96	--	--	--	35.66	
R-45AD	2	73.62	71.0	5.0	08/13/2012	75.25	38.86	--	--	--	34.76	
R-45AD	2	73.62	71.0	5.0	11/06/2012	75.16	39.75	--	--	--	33.87	
R-45AD	2	73.62	71.0	5.0	02/19/2013	75.22	41.00	--	--	--	32.62	
R-45AD	2	73.62	71.0	5.0	04/30/2013	75.13	41.79	--	--	--	31.83	
R-45AD	2	73.62	71.0	5.0	07/30/2013	75.12	43.40	--	--	--	30.22	
R-45AD	2	73.62	71.0	5.0	10/29/2013	75.20	44.40	--	--	--	29.22	
R-45AD	2	73.62	71.0	5.0	02/14/2014	75.33	41.55	--	--	--	32.07	
R-45AD	2	73.62	71.0	5.0	05/05/2014	75.25	36.94	--	--	--	36.68	
R-45AD	2	73.62	71.0	5.0	07/28/2014	75.31	34.58	--	--	--	39.04	
R-45AD	2	73.62	71.0	5.0	10/27/2014	75.37	33.00	--	--	--	40.62	
R-46AS	2	75.42	30.0	15.0	02/08/2012	45.37	36.93	--	--	--	38.49	
R-46AS	2	75.42	30.0	15.0	04/25/2012	45.37	37.28	--	--	--	38.14	
R-46AS	2	75.42	30.0	15.0	08/08/2012	45.31	38.25	--	--	--	37.17	
R-46AS	2	75.42	30.0	15.0	11/06/2012	45.38	38.68	--	--	--	36.74	
R-46AS	2	75.42	30.0	15.0	02/20/2013	45.32	39.40	--	--	--	36.02	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-46AS	2	75.42	30.0	15.0	05/02/2013	45.34	40.34	--	--	--	35.08	
R-46AS	2	75.42	30.0	15.0	07/29/2013	45.36	40.99	--	--	--	34.43	
R-46AS	2	75.42	30.0	15.0	10/29/2013	45.39	41.39	--	--	--	34.03	
R-46AS	2	75.42	30.0	15.0	02/14/2014	45.35	40.71	--	--	--	34.71	
R-46AS	2	75.42	30.0	15.0	05/05/2014	45.44	37.94	--	--	--	37.48	
R-46AS	2	75.42	30.0	15.0	07/28/2014	45.34	36.71	--	--	--	38.71	
R-46AS	2	75.42	30.0	15.0	10/27/2014	45.25	36.10	--	--	--	39.32	
R-46AD	2	75.63	52.0	5.0	02/08/2012	56.75	36.87	--	--	--	38.76	
R-46AD	2	75.63	52.0	5.0	04/25/2012	56.75	37.19	--	--	--	38.44	
R-46AD	2	75.63	52.0	5.0	08/08/2012	56.69	38.11	--	--	--	37.52	
R-46AD	2	75.63	52.0	5.0	11/06/2012	56.68	38.62	--	--	--	37.01	
R-46AD	2	75.63	52.0	5.0	02/20/2013	56.62	38.93	--	--	--	36.70	
R-46AD	2	75.63	52.0	5.0	05/02/2013	56.70	39.85	--	--	--	35.78	
R-46AD	2	75.63	52.0	5.0	07/29/2013	56.60	40.44	--	--	--	35.19	
R-46AD	2	75.63	52.0	5.0	10/29/2013	56.61	40.84	--	--	--	34.79	
R-46AD	2	75.63	52.0	5.0	02/14/2014	56.60	40.15	--	--	--	35.48	
R-46AD	2	75.63	52.0	5.0	05/05/2014	56.86	37.84	--	--	--	37.79	
R-46AD	2	75.63	52.0	5.0	07/28/2014	56.68	36.90	--	--	--	38.73	
R-46AD	2	75.63	52.0	5.0	10/27/2014	56.60	35.80	--	--	--	39.83	
R-46FS	2	75.59	67.0	5.0	02/08/2012	72.30	36.85	--	--	--	38.74	
R-46FS	2	75.59	67.0	5.0	04/25/2012	72.31	37.14	--	--	--	38.45	
R-46FS	2	75.59	67.0	5.0	08/08/2012	72.25	38.06	--	--	--	37.53	
R-46FS	2	75.59	67.0	5.0	11/06/2012	72.30	38.61	--	--	--	36.98	
R-46FS	2	75.59	67.0	5.0	02/20/2013	72.23	38.92	--	--	--	36.67	
R-46FS	2	75.59	67.0	5.0	05/02/2013	72.20	39.80	--	--	--	35.79	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-46FS	2	75.59	67.0	5.0	07/29/2013	72.14	40.30	--	--	--	35.29	
R-46FS	2	75.59	67.0	5.0	10/29/2013	72.20	40.62	--	--	--	34.97	
R-46FS	2	75.59	67.0	5.0	02/14/2014	72.17	40.12	--	--	--	35.47	
R-46FS	2	75.59	67.0	5.0	05/05/2014	72.21	37.82	--	--	--	37.77	
R-46FS	2	75.59	67.0	5.0	07/28/2014	72.20	36.66	--	--	--	38.93	
R-46FS	2	75.59	67.0	5.0	10/27/2014	72.20	35.70	--	--	--	39.89	
R-47AS	2	73.78	29.0	15.0	02/07/2012	44.64	37.05	--	--	--	36.73	
R-47AS	2	73.78	29.0	15.0	04/26/2012	44.31	37.18	--	--	--	36.60	
R-47AS	2	73.78	29.0	15.0	08/09/2012	44.22	38.90	--	--	--	34.88	
R-47AS	2	73.78	29.0	15.0	11/06/2012	44.22	39.10	--	--	--	34.68	
R-47AS	2	73.78	29.0	15.0	02/19/2013	44.19	40.65	--	--	--	33.13	
R-47AS	2	73.78	29.0	15.0	04/30/2013	44.22	41.52	--	--	--	32.26	
R-47AS	2	73.78	29.0	15.0	07/30/2013	44.20	43.08	--	--	--	30.70	
R-47AS	2	73.78	29.0	15.0	10/29/2013	44.23	43.61	--	--	--	30.17	
R-47AS	2	73.78	29.0	15.0	02/14/2014	44.11	41.68	--	--	--	32.10	
R-47AS	2	73.78	29.0	15.0	05/05/2014	44.24	37.04	--	--	--	36.74	
R-47AS	2	73.78	29.0	15.0	07/28/2014	44.20	35.04	--	--	--	38.74	
R-47AS	2	73.78	29.0	15.0	10/27/2014	44.23	33.67	--	--	--	40.11	
R-47AM	2	74.08	55.0	5.0	02/07/2012	61.08	37.35	--	--	--	36.73	
R-47AM	2	74.08	55.0	5.0	04/26/2012	60.84	37.54	--	--	--	36.54	
R-47AM	2	74.08	55.0	5.0	08/09/2012	60.62	38.60	--	--	--	35.48	
R-47AM	2	74.08	55.0	5.0	11/06/2012	60.60	39.45	--	--	--	34.63	
R-47AM	2	74.08	55.0	5.0	02/19/2013	60.58	40.70	--	--	--	33.38	
R-47AM	2	74.08	55.0	5.0	04/30/2013	60.62	41.86	--	--	--	32.22	
R-47AM	2	74.08	55.0	5.0	07/30/2013	60.64	43.47	--	--	--	30.61	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-47AM	2	74.08	55.0	5.0	10/29/2013	60.60	44.64	--	--	--	29.44	
R-47AM	2	74.08	55.0	5.0	02/14/2014	60.51	41.80	--	--	--	32.28	
R-47AM	2	74.08	55.0	5.0	05/05/2014	60.66	37.31	--	--	--	36.77	
R-47AM	2	74.08	55.0	5.0	07/28/2014	60.64	35.43	--	--	--	38.65	
R-47AM	2	74.08	55.0	5.0	10/27/2014	60.61	34.92	--	--	--	39.16	
R-47AD	2	74.28	71.0	5.0	02/07/2012	77.20	37.60	--	--	--	36.68	
R-47AD	2	74.28	71.0	5.0	04/26/2012	76.93	37.80	--	--	--	36.48	
R-47AD	2	74.28	71.0	5.0	08/09/2012	76.75	38.90	--	--	--	35.38	
R-47AD	2	74.28	71.0	5.0	11/06/2012	76.80	39.82	--	--	--	34.46	
R-47AD	2	74.28	71.0	5.0	02/19/2013	76.79	40.94	--	--	--	33.34	
R-47AD	2	74.28	71.0	5.0	04/30/2013	76.71	42.10	--	--	--	32.18	
R-47AD	2	74.28	71.0	5.0	07/30/2013	76.76	43.89	--	--	--	30.39	
R-47AD	2	74.28	71.0	5.0	10/29/2013	76.76	45.04	--	--	--	29.24	
R-47AD	2	74.28	71.0	5.0	02/14/2014	76.63	42.12	--	--	--	32.16	
R-47AD	2	74.28	71.0	5.0	05/05/2014	76.74	37.47	--	--	--	36.81	
R-47AD	2	74.28	71.0	5.0	07/28/2014	76.83	35.50	--	--	--	38.78	
R-47AD	2	74.28	71.0	5.0	10/27/2014	76.83	34.12	--	--	--	40.16	
R-48AS	2	71.39	27.0	15.0	02/14/2012	42.80	35.46	--	--	--	35.93	
R-48AS	2	71.39	27.0	15.0	04/30/2012	42.43	35.59	--	--	--	35.80	
R-48AS	2	71.39	27.0	15.0	08/13/2012	42.39	36.38	--	--	--	35.01	
R-48AS	2	71.39	27.0	15.0	11/06/2012	42.40	37.28	--	--	--	34.11	
R-48AS	2	71.39	27.0	15.0	02/19/2013	42.28	38.62	--	--	--	32.77	
R-48AS	2	71.39	27.0	15.0	05/06/2013	42.36	39.51	--	--	--	31.88	
R-48AS	2	71.39	27.0	15.0	07/30/2013	42.37	41.01	--	--	--	30.38	
R-48AS	2	71.39	27.0	15.0	10/29/2013	42.33	41.74/IWG	--	--	--	--	Insufficient H2O to Gauge

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-48AS	2	71.39	27.0	15.0	02/14/2014	42.22	40.09	--	--	--	31.30	
R-48AS	2	71.39	27.0	15.0	05/05/2014	42.29	34.78	--	--	--	36.61	
R-48AS	2	71.39	27.0	15.0	07/28/2014	42.43	32.65	--	--	--	38.74	
R-48AS	2	71.39	27.0	15.0	10/28/2014	42.41	30.99	--	--	--	40.40	
R-48AM	2	71.61	53.0	5.0	02/14/2012	59.12	36.18	--	--	--	35.43	
R-48AM	2	71.61	53.0	5.0	04/30/2012	58.79	35.98	--	--	--	35.63	
R-48AM	2	71.61	53.0	5.0	08/13/2012	58.71	36.94	--	--	--	34.67	
R-48AM	2	71.61	53.0	5.0	11/06/2012	58.76	37.80	--	--	--	33.81	
R-48AM	2	71.61	53.0	5.0	02/19/2013	58.71	38.98	--	--	--	32.63	
R-48AM	2	71.61	53.0	5.0	05/06/2013	58.70	39.97	--	--	--	31.64	
R-48AM	2	71.61	53.0	5.0	07/30/2013	58.71	41.49	--	--	--	30.12	
R-48AM	2	71.61	53.0	5.0	10/29/2013	58.74	42.50	--	--	--	29.11	
R-48AM	2	71.61	53.0	5.0	02/14/2014	58.60	39.67	--	--	--	31.94	
R-48AM	2	71.61	53.0	5.0	05/05/2014	58.64	34.84	--	--	--	36.77	
R-48AM	2	71.61	53.0	5.0	07/28/2014	58.74	32.63	--	--	--	38.98	
R-48AM	2	71.61	53.0	5.0	10/28/2014	58.76	31.10	--	--	--	40.51	
R-48AD	2	71.88	69.5	5.0	02/14/2012	75.84	36.50	--	--	--	35.38	
R-48AD	2	71.88	69.5	5.0	04/30/2012	75.47	36.25	--	--	--	35.63	
R-48AD	2	71.88	69.5	5.0	08/13/2012	75.33	37.18	--	--	--	34.70	
R-48AD	2	71.88	69.5	5.0	11/06/2012	75.30	38.28	--	--	--	33.60	
R-48AD	2	71.88	69.5	5.0	02/19/2013	75.34	39.32	--	--	--	32.56	
R-48AD	2	71.88	69.5	5.0	05/06/2013	75.38	40.20	--	--	--	31.68	
R-48AD	2	71.88	69.5	5.0	07/30/2013	75.34	41.60	--	--	--	30.28	
R-48AD	2	71.88	69.5	5.0	10/29/2013	75.40	42.80	--	--	--	29.08	
R-48AD	2	71.88	69.5	5.0	02/14/2014	75.19	39.98	--	--	--	31.90	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-48AD	2	71.88	69.5	5.0	05/05/2014	75.34	35.08	--	--	--	36.80	
R-48AD	2	71.88	69.5	5.0	07/28/2014	75.39	32.92	--	--	--	38.96	
R-48AD	2	71.88	69.5	5.0	10/28/2014	75.39	31.35	--	--	--	40.53	
R-60AS	2	73.07	27.0	15.0	02/16/2012	41.22	35.58	--	--	--	37.49	
R-60AS	2	73.07	27.0	15.0	04/30/2012	40.80	35.57	--	--	--	37.50	
R-60AS	2	73.07	27.0	15.0	08/09/2012	40.75	35.79	--	--	--	37.28	
R-60AS	2	73.07	27.0	15.0	11/07/2012	40.80	36.60	--	--	--	36.47	
R-60AS	2	73.07	27.0	15.0	02/18/2013	40.98	37.15	--	--	--	35.92	
R-60AS	2	73.07	27.0	15.0	05/03/2013	40.73	37.71	--	--	--	35.36	
R-60AS	2	73.07	27.0	15.0	07/29/2013	40.80	38.30	--	--	--	34.77	
R-60AS	2	73.07	27.0	15.0	10/28/2013	40.99	38.95	--	--	--	34.12	
R-60AS	2	73.07	27.0	15.0	02/14/2014	41.02	38.61	--	--	--	34.46	
R-60AS	2	73.07	27.0	15.0	05/05/2014	40.94	34.92	--	--	--	38.15	
R-60AS	2	73.07	27.0	15.0	07/28/2014	40.94	32.84	--	--	--	40.23	
R-60AS	2	73.07	27.0	15.0	10/27/2014	40.97	30.99	--	--	--	42.08	
R-60AM	2	73.38	49.0	5.0	02/16/2012	54.52	35.98	--	--	--	37.40	
R-60AM	2	73.38	49.0	5.0	04/30/2012	54.14	35.91	--	--	--	37.47	
R-60AM	2	73.38	49.0	5.0	08/09/2012	54.19	36.13	--	--	--	37.25	
R-60AM	2	73.38	49.0	5.0	11/07/2012	54.16	36.92	--	--	--	36.46	
R-60AM	2	73.38	49.0	5.0	02/18/2013	54.20	37.58	--	--	--	35.80	
R-60AM	2	73.38	49.0	5.0	05/03/2013	54.10	38.04	--	--	--	35.34	
R-60AM	2	73.38	49.0	5.0	07/29/2013	54.10	38.78	--	--	--	34.60	
R-60AM	2	73.38	49.0	5.0	10/28/2013	54.12	39.23	--	--	--	34.15	
R-60AM	2	73.38	49.0	5.0	02/14/2014	54.15	38.92	--	--	--	34.46	
R-60AM	2	73.38	49.0	5.0	05/05/2014	54.21	35.21	--	--	--	38.17	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-60AM	2	73.38	49.0	5.0	07/28/2014	54.21	33.20	--	--	--	40.18	
R-60AM	2	73.38	49.0	5.0	10/27/2014	54.16	31.40	--	--	--	41.98	
R-60AD	2	73.63	62.0	5.0	02/16/2012	67.50	36.25	--	--	--	37.38	
R-60AD	2	73.63	62.0	5.0	04/30/2012	67.18	36.22	--	--	--	37.41	
R-60AD	2	73.63	62.0	5.0	08/09/2012	62.20	36.44	--	--	--	37.19	
R-60AD	2	73.63	62.0	5.0	11/07/2012	67.18	37.30	--	--	--	36.33	
R-60AD	2	73.63	62.0	5.0	02/18/2013	67.15	37.92	--	--	--	35.71	
R-60AD	2	73.63	62.0	5.0	05/03/2013	67.07	38.44	--	--	--	35.19	
R-60AD	2	73.63	62.0	5.0	07/29/2013	67.06	39.19	--	--	--	34.44	
R-60AD	2	73.63	62.0	5.0	10/28/2013	67.10	39.69	--	--	--	33.94	
R-60AD	2	73.63	62.0	5.0	02/14/2014	67.08	39.32	--	--	--	34.31	
R-60AD	2	73.63	62.0	5.0	05/05/2014	67.14	35.47	--	--	--	38.16	
R-60AD	2	73.63	62.0	5.0	07/28/2014	67.24	33.45	--	--	--	40.18	
R-60AD	2	73.63	62.0	5.0	10/27/2014	67.18	31.80	--	--	--	41.83	
R-61AS	2	59.33	11.0	15.0	02/16/2012	25.63	19.58	--	--	--	39.75	
R-61AS	2	59.33	11.0	15.0	04/30/2012	25.30	19.26	--	--	--	40.07	
R-61AS	2	59.33	11.0	15.0	08/09/2012	25.28	19.53	--	--	--	39.80	
R-61AS	2	59.33	11.0	15.0	11/07/2012	25.25	20.15	--	--	--	39.18	
R-61AS	2	59.33	11.0	15.0	02/18/2013	25.30	20.45	--	--	--	38.88	
R-61AS	2	59.33	11.0	15.0	05/03/2013	25.23	20.69	--	--	--	38.64	
R-61AS	2	59.33	11.0	15.0	07/29/2013	25.28	21.18	--	--	--	38.15	
R-61AS	2	59.33	11.0	15.0	10/28/2013	25.32	21.43	--	--	--	37.90	
R-61AS	2	59.33	11.0	15.0	02/14/2014	25.27	21.70	--	--	--	37.63	
R-61AS	2	59.33	11.0	15.0	05/05/2014	25.32	19.17	--	--	--	40.16	
R-61AS	2	59.33	11.0	15.0	07/28/2014	25.18	17.92	--	--	--	41.41	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-61AS	2	59.33	11.0	15.0	10/27/2014	25.26	15.91	--	--	--	43.42	
R-61AM	2	59.61	33.0	5.0	02/16/2012	38.24	20.00	--	--	--	39.61	
R-61AM	2	59.61	33.0	5.0	04/30/2012	37.84	19.63	--	--	--	39.98	
R-61AM	2	59.61	33.0	5.0	08/09/2012	37.84	19.84	--	--	--	39.77	
R-61AM	2	59.61	33.0	5.0	11/07/2012	37.80	20.52	--	--	--	39.09	
R-61AM	2	59.61	33.0	5.0	02/18/2013	37.80	20.75	--	--	--	38.86	
R-61AM	2	59.61	33.0	5.0	05/03/2013	37.79	21.04	--	--	--	38.57	
R-61AM	2	59.61	33.0	5.0	07/29/2013	37.80	21.54	--	--	--	38.07	
R-61AM	2	59.61	33.0	5.0	10/28/2013	37.82	21.89	--	--	--	37.72	
R-61AM	2	59.61	33.0	5.0	02/14/2014	37.80	21.91	--	--	--	37.70	
R-61AM	2	59.61	33.0	5.0	05/05/2014	37.76	19.42	--	--	--	40.19	
R-61AM	2	59.61	33.0	5.0	07/28/2014	37.94	18.16	--	--	--	41.45	
R-61AM	2	59.61	33.0	5.0	10/27/2014	37.77	16.28	--	--	--	43.33	
R-61AD	2	59.90	46.0	5.0	02/16/2012	51.15	20.35	--	--	--	39.55	
R-61AD	2	59.90	46.0	5.0	04/30/2012	50.82	20.04	--	--	--	39.86	
R-61AD	2	59.90	46.0	5.0	08/09/2012	50.79	20.25	--	--	--	39.65	
R-61AD	2	59.90	46.0	5.0	11/07/2012	50.80	20.91	--	--	--	38.99	
R-61AD	2	59.90	46.0	5.0	02/18/2013	50.75	21.20	--	--	--	38.70	
R-61AD	2	59.90	46.0	5.0	05/03/2013	50.73	21.54	--	--	--	38.36	
R-61AD	2	59.90	46.0	5.0	07/29/2013	50.73	21.98	--	--	--	37.92	
R-61AD	2	59.90	46.0	5.0	10/28/2013	50.73	22.30	--	--	--	37.60	
R-61AD	2	59.90	46.0	5.0	02/14/2014	50.73	22.40	--	--	--	37.50	
R-61AD	2	59.90	46.0	5.0	05/05/2014	50.71	19.89	--	--	--	40.01	
R-61AD	2	59.90	46.0	5.0	07/28/2014	50.87	18.54	--	--	--	41.36	
R-61AD	2	59.90	46.0	5.0	10/27/2014	50.75	16.61	--	--	--	43.29	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-62AS	2	54.80	7.0	15.0	02/16/2012	22.88	12.40	--	--	--	42.40	
R-62AS	2	54.80	7.0	15.0	04/30/2012	22.44	11.76	--	--	--	43.04	
R-62AS	2	54.80	7.0	15.0	08/16/2012	22.40	12.15	--	--	--	42.65	
R-62AS	2	54.80	7.0	15.0	11/07/2012	22.50	12.73	--	--	--	42.07	
R-62AS	2	54.80	7.0	15.0	02/08/2013	22.43	12.78	--	--	--	42.02	
R-62AS	2	54.80	7.0	15.0	05/03/2013	22.31	12.97	--	--	--	41.83	
R-62AS	2	54.80	7.0	15.0	07/29/2013	22.46	13.13	--	--	--	41.67	
R-62AS	2	54.80	7.0	15.0	10/28/2013	22.42	13.48	--	--	--	41.32	
R-62AS	2	54.80	7.0	15.0	02/14/2014	22.44	13.79	--	--	--	41.01	
R-62AS	2	54.80	7.0	15.0	05/05/2014	22.42	12.20	--	--	--	42.60	
R-62AS	2	54.80	7.0	15.0	07/28/2014	22.41	11.87	--	--	--	42.93	
R-62AS	2	54.80	7.0	15.0	10/27/2014	22.42	9.76	--	--	--	45.04	
R-62AM	2	54.73	32.5	5.0	02/16/2012	38.00	12.45	--	--	--	42.28	
R-62AM	2	54.73	32.5	5.0	04/30/2012	37.67	11.94	--	--	--	42.79	
R-62AM	2	54.73	32.5	5.0	08/16/2012	37.70	12.23	--	--	--	42.50	
R-62AM	2	54.73	32.5	5.0	11/07/2012	37.63	12.82	--	--	--	41.91	
R-62AM	2	54.73	32.5	5.0	02/08/2013	37.62	12.89	--	--	--	41.84	
R-62AM	2	54.73	32.5	5.0	05/03/2013	37.63	13.03	--	--	--	41.70	
R-62AM	2	54.73	32.5	5.0	07/29/2013	37.57	13.31	--	--	--	41.42	
R-62AM	2	54.73	32.5	5.0	10/28/2013	37.60	13.65	--	--	--	41.08	
R-62AM	2	54.73	32.5	5.0	02/14/2014	37.61	13.98	--	--	--	40.75	
R-62AM	2	54.73	32.5	5.0	05/05/2014	37.58	12.21	--	--	--	42.52	
R-62AM	2	54.73	32.5	5.0	07/28/2014	37.71	11.88	--	--	--	42.85	
R-62AM	2	54.73	32.5	5.0	10/27/2014	37.61	9.58	--	--	--	45.15	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-62AD	2	54.63	48.0	5.0	02/16/2012	53.30	12.75	--	--	--	41.88	
R-62AD	2	54.63	48.0	5.0	04/30/2012	52.91	12.31	--	--	--	42.32	
R-62AD	2	54.63	48.0	5.0	08/16/2012	52.98	12.53	--	--	--	42.10	
R-62AD	2	54.63	48.0	5.0	11/07/2012	52.93	13.20	--	--	--	41.43	
R-62AD	2	54.63	48.0	5.0	02/08/2013	52.87	13.20	--	--	--	41.43	
R-62AD	2	54.63	48.0	5.0	05/03/2013	52.83	13.45	--	--	--	41.18	
R-62AD	2	54.63	48.0	5.0	07/29/2013	52.86	13.72	--	--	--	40.91	
R-62AD	2	54.63	48.0	5.0	10/28/2013	52.90	13.97	--	--	--	40.66	
R-62AD	2	54.63	48.0	5.0	02/14/2014	57.68	14.27	--	--	--	40.36	
R-62AD	2	54.63	48.0	5.0	05/05/2014	52.85	12.51	--	--	--	42.12	
R-62AD	2	54.63	48.0	5.0	07/28/2014	52.98	12.02	--	--	--	42.61	
R-62AD	2	54.63	48.0	5.0	10/27/2014	52.85	9.75	--	--	--	44.88	
R-63AS	2	74.21	30.0	15.0	02/07/2012	44.82	34.45	--	--	--	39.76	
R-63AS	2	74.21	30.0	15.0	04/25/2012	44.60	34.10	--	--	--	40.11	
R-63AS	2	74.21	30.0	15.0	08/07/2012	44.41	34.69	--	--	--	39.52	
R-63AS	2	74.21	30.0	15.0	11/06/2012	44.50	35.15	--	--	--	39.06	
R-63AS	2	74.21	30.0	15.0	02/20/2013	44.71	35.26	--	--	--	38.95	
R-63AS	2	74.21	30.0	15.0	05/01/2013	44.61	35.70	--	--	--	38.51	
R-63AS	2	74.21	30.0	15.0	07/29/2013	44.64	36.20	--	--	--	38.01	
R-63AS	2	74.21	30.0	15.0	10/29/2013	44.55	36.60	--	--	--	37.61	
R-63AS	2	74.21	30.0	15.0	02/14/2014	44.78	36.75	--	--	--	37.46	
R-63AS	2	74.21	30.0	15.0	05/05/2014	44.62	34.97	--	--	--	39.24	
R-63AS	2	74.21	30.0	15.0	07/28/2014	44.54	33.89	--	--	--	40.32	
R-63AS	2	74.21	30.0	15.0	10/27/2014	44.50	33.10	--	--	--	41.11	
R-63AD	2	74.47	46.0	5.0	02/07/2012	51.45	34.78	--	--	--	39.69	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-63AD	2	74.47	46.0	5.0	04/25/2012	51.22	34.49	--	--	--	39.98	
R-63AD	2	74.47	46.0	5.0	08/07/2012	51.15	34.93	--	--	--	39.54	
R-63AD	2	74.47	46.0	5.0	11/06/2012	51.02	35.41	--	--	--	39.06	
R-63AD	2	74.47	46.0	5.0	02/20/2013	51.14	35.58	--	--	--	38.89	
R-63AD	2	74.47	46.0	5.0	05/01/2013	51.05	35.97	--	--	--	38.50	
R-63AD	2	74.47	46.0	5.0	07/29/2013	51.02	36.51	--	--	--	37.96	
R-63AD	2	74.47	46.0	5.0	10/29/2013	51.02	36.88	--	--	--	37.59	
R-63AD	2	74.47	46.0	5.0	02/14/2014	51.00	36.92	--	--	--	37.55	
R-63AD	2	74.47	46.0	5.0	05/05/2014	51.08	35.28	--	--	--	39.19	
R-63AD	2	74.47	46.0	5.0	07/28/2014	51.04	34.03	--	--	--	40.44	
R-63AD	2	74.47	46.0	5.0	10/27/2014	51.10	32.90	--	--	--	41.57	
R-64AS	2	75.27	29.0	15.0	02/08/2012	44.03	35.87	--	--	--	39.40	
R-64AS	2	75.27	29.0	15.0	04/25/2012	43.99	36.00	--	--	--	39.27	
R-64AS	2	75.27	29.0	15.0	08/08/2012	43.94	36.68	--	--	--	38.59	
R-64AS	2	75.27	29.0	15.0	11/06/2012	43.96	37.21	--	--	--	38.06	
R-64AS	2	75.27	29.0	15.0	02/20/2013	43.81	37.42	--	--	--	37.85	
R-64AS	2	75.27	29.0	15.0	05/03/2013	43.91	38.03	--	--	--	37.24	
R-64AS	2	75.27	29.0	15.0	07/29/2013	43.98	38.59	--	--	--	36.68	
R-64AS	2	75.27	29.0	15.0	10/29/2013	43.90	38.96	--	--	--	36.31	
R-64AS	2	75.27	29.0	15.0	02/14/2014	44.00	38.81	--	--	--	36.46	
R-64AS	2	75.27	29.0	15.0	05/05/2014	44.02	36.78	--	--	--	38.49	
R-64AS	2	75.27	29.0	15.0	07/28/2014	44.00	35.51	--	--	--	39.76	
R-64AS	2	75.27	29.0	15.0	10/27/2014	44.00	34.60	--	--	--	40.67	
R-64AD	2	75.48	51.0	5.0	02/08/2012	56.40	36.16	--	--	--	39.32	
R-64AD	2	75.48	51.0	5.0	04/25/2012	56.44	36.39	--	--	--	39.09	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-64AD	2	75.48	51.0	5.0	08/08/2012	56.41	37.15	--	--	--	38.33	
R-64AD	2	75.48	51.0	5.0	11/06/2012	56.42	37.62	--	--	--	37.86	
R-64AD	2	75.48	51.0	5.0	02/20/2013	56.38	37.66	--	--	--	37.82	
R-64AD	2	75.48	51.0	5.0	05/03/2013	56.35	38.51	--	--	--	36.97	
R-64AD	2	75.48	51.0	5.0	07/29/2013	56.33	39.06	--	--	--	36.42	
R-64AD	2	75.48	51.0	5.0	10/29/2013	56.40	39.33	--	--	--	36.15	
R-64AD	2	75.48	51.0	5.0	02/14/2014	56.35	39.12	--	--	--	36.36	
R-64AD	2	75.48	51.0	5.0	05/05/2014	56.46	37.11	--	--	--	38.37	
R-64AD	2	75.48	51.0	5.0	07/28/2014	56.38	36.23	--	--	--	39.25	
R-64AD	2	75.48	51.0	5.0	10/27/2014	56.20	35.80	--	--	--	39.68	
R-64FS	2	75.24	66.0	5.0	02/08/2012	71.36	35.69	--	--	--	39.55	
R-64FS	2	75.24	66.0	5.0	04/25/2012	71.33	35.89	--	--	--	39.35	
R-64FS	2	75.24	66.0	5.0	08/08/2012	71.27	36.57	--	--	--	38.67	
R-64FS	2	75.24	66.0	5.0	11/06/2012	71.34	37.08	--	--	--	38.16	
R-64FS	2	75.24	66.0	5.0	02/20/2013	71.23	36.99	--	--	--	38.25	
R-64FS	2	75.24	66.0	5.0	05/03/2013	71.26	37.83	--	--	--	37.41	
R-64FS	2	75.24	66.0	5.0	07/29/2013	71.20	38.23	--	--	--	37.01	
R-64FS	2	75.24	66.0	5.0	10/29/2013	71.24	39.70	--	--	--	35.54	
R-64FS	2	75.24	66.0	5.0	02/14/2014	71.24	38.51	--	--	--	36.73	
R-64FS	2	75.24	66.0	5.0	05/05/2014	71.34	37.28	--	--	--	37.96	
R-64FS	2	75.24	66.0	5.0	07/28/2014	71.23	35.94	--	--	--	39.30	
R-64FS	2	75.24	66.0	5.0	10/27/2014	71.60	36.10	--	--	--	39.14	
R-65AS	2	70.55	24.0	15.0	02/08/2012	38.74	32.35	--	--	--	38.20	
R-65AS	2	70.55	24.0	15.0	04/25/2012	38.68	32.68	--	--	--	37.87	
R-65AS	2	70.55	24.0	15.0	08/08/2012	38.75	33.90	--	--	--	36.65	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-65AS	2	70.55	24.0	15.0	11/06/2012	38.66	34.54	--	--	--	36.01	
R-65AS	2	70.55	24.0	15.0	02/20/2013	38.72	35.31	--	--	--	35.24	
R-65AS	2	70.55	24.0	15.0	05/02/2013	38.64	36.63	--	--	--	33.92	
R-65AS	2	70.55	24.0	15.0	07/29/2013	38.72	37.44	--	--	--	33.11	
R-65AS	2	70.55	24.0	15.0	10/29/2013	38.72	38.27/IWG	--	--	--	--	Insufficient H2O to Gauge
R-65AS	2	70.55	24.0	15.0	02/14/2014	38.75	36.57	--	--	--	33.98	
R-65AS	2	70.55	24.0	15.0	05/05/2014	38.72	33.36	--	--	--	37.19	
R-65AS	2	70.55	24.0	15.0	07/28/2014	38.73	31.83	--	--	--	38.72	
R-65AS	2	70.55	24.0	15.0	10/27/2014	38.80	31.03	--	--	--	39.52	
R-65AD	2	70.10	47.0	5.0	02/08/2012	52.54	31.56	--	--	--	38.54	
R-65AD	2	70.10	47.0	5.0	04/25/2012	52.53	31.80	--	--	--	38.30	
R-65AD	2	70.10	47.0	5.0	08/08/2012	52.54	32.85	--	--	--	37.25	
R-65AD	2	70.10	47.0	5.0	11/06/2012	52.52	33.32	--	--	--	36.78	
R-65AD	2	70.10	47.0	5.0	02/20/2013	52.43	34.40	--	--	--	35.70	
R-65AD	2	70.10	47.0	5.0	05/02/2013	52.47	34.80	--	--	--	35.30	
R-65AD	2	70.10	47.0	5.0	07/29/2013	52.15	36.19	--	--	--	33.91	
R-65AD	2	70.10	47.0	5.0	10/29/2013	52.46	36.73	--	--	--	33.37	
R-65AD	2	70.10	47.0	5.0	02/14/2014	52.39	35.07	--	--	--	35.03	
R-65AD	2	70.10	47.0	5.0	05/05/2014	52.68	33.38	--	--	--	36.72	
R-65AD	2	70.10	47.0	5.0	07/28/2014	52.43	31.98	--	--	--	38.12	
R-65AD	2	70.10	47.0	5.0	10/27/2014	52.70	31.90	--	--	--	38.20	
R-65FS	2	70.50	62.0	5.0	02/08/2012	66.74	32.04	--	--	--	38.46	
R-65FS	2	70.50	62.0	5.0	04/25/2012	66.75	32.38	--	--	--	38.12	
R-65FS	2	70.50	62.0	5.0	08/08/2012	66.75	33.50	--	--	--	37.00	
R-65FS	2	70.50	62.0	5.0	11/06/2012	66.74	34.10	--	--	--	36.40	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-65FS	2	70.50	62.0	5.0	02/20/2013	66.59	34.68	--	--	--	35.82	
R-65FS	2	70.50	62.0	5.0	05/02/2013	66.67	35.89	--	--	--	34.61	
R-65FS	2	70.50	62.0	5.0	07/29/2013	66.61	36.50	--	--	--	34.00	
R-65FS	2	70.50	62.0	5.0	10/29/2013	66.62	37.02	--	--	--	33.48	
R-65FS	2	70.50	62.0	5.0	02/14/2014	66.62	36.37	--	--	--	34.13	
R-65FS	2	70.50	62.0	5.0	05/05/2014	66.84	33.72	--	--	--	36.78	
R-65FS	2	70.50	62.0	5.0	07/28/2014	66.64	31.80	--	--	--	38.70	
R-65FS	2	70.50	62.0	5.0	10/27/2014	66.55	31.20	--	--	--	39.30	
R-66AS	2	65.93	20.0	15.0	02/06/2012	34.60	27.91	--	--	--	38.02	
R-66AS	2	65.93	20.0	15.0	04/24/2012	34.61	28.40	--	--	--	37.53	
R-66AS	2	65.93	20.0	15.0	08/07/2012	34.61	29.74	--	--	--	36.19	
R-66AS	2	65.93	20.0	15.0	11/05/2012	34.60	30.38	--	--	--	35.55	
R-66AS	2	65.93	20.0	15.0	02/19/2013	34.56	31.27	--	--	--	34.66	
R-66AS	2	65.93	20.0	15.0	05/01/2013	34.54	32.91	--	--	--	33.02	
R-66AS	2	65.93	20.0	15.0	07/29/2013	34.55	33.77	--	--	--	32.16	
R-66AS	2	65.93	20.0	15.0	10/29/2013	34.54	34.20/IWG	--	--	--	--	Insufficient H2O to Gauge
R-66AS	2	65.93	20.0	15.0	02/14/2014	34.54	32.37	--	--	--	33.56	
R-66AS	2	65.93	20.0	15.0	05/05/2014	34.66	28.86	--	--	--	37.07	
R-66AS	2	65.93	20.0	15.0	07/28/2014	34.52	27.54	--	--	--	38.39	
R-66AS	2	65.93	20.0	15.0	10/27/2014	34.50	26.51	--	--	--	39.42	
R-66AM	2	66.13	47.0	5.0	02/06/2012	51.97	28.08	--	--	--	38.05	
R-66AM	2	66.13	47.0	5.0	04/24/2012	51.97	28.61	--	--	--	37.52	
R-66AM	2	66.13	47.0	5.0	08/07/2012	51.99	29.93	--	--	--	36.20	
R-66AM	2	66.13	47.0	5.0	11/05/2012	51.93	30.56	--	--	--	35.57	
R-66AM	2	66.13	47.0	5.0	02/19/2013	51.82	31.44	--	--	--	34.69	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-66AM	2	66.13	47.0	5.0	05/01/2013	51.87	33.10	--	--	--	33.03	
R-66AM	2	66.13	47.0	5.0	07/29/2013	51.90	33.95	--	--	--	32.18	
R-66AM	2	66.13	47.0	5.0	10/29/2013	51.93	34.98	--	--	--	31.15	
R-66AM	2	66.13	47.0	5.0	02/14/2014	51.91	32.55	--	--	--	33.58	
R-66AM	2	66.13	47.0	5.0	05/05/2014	52.02	29.14	--	--	--	36.99	
R-66AM	2	66.13	47.0	5.0	07/28/2014	51.88	27.76	--	--	--	38.37	
R-66AM	2	66.13	47.0	5.0	10/27/2014	51.90	26.51	--	--	--	39.62	
R-66AD	2	66.83	65.0	5.0	02/06/2012	70.15	28.81	--	--	--	38.02	
R-66AD	2	66.83	65.0	5.0	04/24/2012	70.10	29.30	--	--	--	37.53	
R-66AD	2	66.83	65.0	5.0	08/07/2012	70.13	30.61	--	--	--	36.22	
R-66AD	2	66.83	65.0	5.0	11/05/2012	70.10	31.22	--	--	--	35.61	
R-66AD	2	66.83	65.0	5.0	02/19/2013	70.01	32.12	--	--	--	34.71	
R-66AD	2	66.83	65.0	5.0	05/01/2013	70.04	33.74	--	--	--	33.09	
R-66AD	2	66.83	65.0	5.0	07/29/2013	69.99	34.64	--	--	--	32.19	
R-66AD	2	66.83	65.0	5.0	10/29/2013	70.01	35.63	--	--	--	31.20	
R-66AD	2	66.83	65.0	5.0	02/14/2014	70.04	33.19	--	--	--	33.64	
R-66AD	2	66.83	65.0	5.0	05/05/2014	69.84	29.74	--	--	--	37.09	
R-66AD	2	66.83	65.0	5.0	07/28/2014	70.04	28.42	--	--	--	38.41	
R-66AD	2	66.83	65.0	5.0	10/27/2014	70.00	27.25	--	--	--	39.58	
R-66FS	2	66.89	81.0	5.0	02/06/2012	86.12	28.55	--	--	--	38.34	
R-66FS	2	66.89	81.0	5.0	04/24/2012	86.28	28.97	--	--	--	37.92	
R-66FS	2	66.89	81.0	5.0	08/07/2012	86.16	30.21	--	--	--	36.68	
R-66FS	2	66.89	81.0	5.0	11/05/2012	86.20	30.80	--	--	--	36.09	
R-66FS	2	66.89	81.0	5.0	02/19/2013	86.16	31.62	--	--	--	35.27	
R-66FS	2	66.89	81.0	5.0	05/01/2013	86.16	33.10	--	--	--	33.79	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-66FS	2	66.89	81.0	5.0	07/29/2013	86.01	33.86	--	--	--	33.03	
R-66FS	2	66.89	81.0	5.0	10/29/2013	86.12	34.34	--	--	--	32.55	
R-66FS	2	66.89	81.0	5.0	02/14/2014	86.18	32.81	--	--	--	34.08	
R-66FS	2	66.89	81.0	5.0	05/05/2014	86.04	29.68	--	--	--	37.21	
R-66FS	2	66.89	81.0	5.0	07/28/2014	86.18	28.18	--	--	--	38.71	
R-66FS	2	66.89	81.0	5.0	10/27/2014	86.20	27.40	--	--	--	39.49	
R-67AS	2	62.00	15.0	15.0	02/07/2012	29.51	24.09	--	--	--	37.91	
R-67AS	2	62.00	15.0	15.0	04/24/2012	29.53	24.67	--	--	--	37.33	
R-67AS	2	62.00	15.0	15.0	08/07/2012	29.52	26.22	--	--	--	35.78	
R-67AS	2	62.00	15.0	15.0	11/05/2012	29.51	26.84	--	--	--	35.16	
R-67AS	2	62.00	15.0	15.0	02/19/2013	29.49	27.87	--	--	--	34.13	
R-67AS	2	62.00	15.0	15.0	05/01/2013	29.45	29.10/IWG	--	--	--	--	Insufficient H2O to Gauge
R-67AS	2	62.00	15.0	15.0	07/29/2013	29.49	29.10/IWG	--	--	--	--	Insufficient H2O to Gauge
R-67AS	2	62.00	15.0	15.0	10/29/2013	29.48	29.48/IWG	--	--	--	--	Well Dry
R-67AS	2	62.00	15.0	15.0	02/14/2014	29.52	28.61	--	--	--	33.39	
R-67AS	2	62.00	15.0	15.0	05/05/2014	29.51	24.97	--	--	--	37.03	
R-67AS	2	62.00	15.0	15.0	07/28/2014	29.50	23.64	--	--	--	38.36	
R-67AS	2	62.00	15.0	15.0	10/28/2014	29.51	22.58	--	--	--	39.42	
R-67AM	2	62.03	44.0	5.0	02/07/2012	49.05	24.05	--	--	--	37.98	
R-67AM	2	62.03	44.0	5.0	04/24/2012	49.04	24.65	--	--	--	37.38	
R-67AM	2	62.03	44.0	5.0	08/07/2012	48.89	26.23	--	--	--	35.80	
R-67AM	2	62.03	44.0	5.0	11/05/2012	49.05	26.86	--	--	--	35.17	
R-67AM	2	62.03	44.0	5.0	02/19/2013	48.98	27.87	--	--	--	34.16	
R-67AM	2	62.03	44.0	5.0	05/01/2013	48.99	29.71	--	--	--	32.32	
R-67AM	2	62.03	44.0	5.0	07/29/2013	48.99	30.52	--	--	--	31.51	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-67AM	2	62.03	44.0	5.0	10/29/2013	49.01	31.76	--	--	--	30.27	
R-67AM	2	62.03	44.0	5.0	02/14/2014	48.98	28.67	--	--	--	33.36	
R-67AM	2	62.03	44.0	5.0	05/05/2014	49.05	25.02	--	--	--	37.01	
R-67AM	2	62.03	44.0	5.0	07/28/2014	48.97	23.68	--	--	--	38.35	
R-67AM	2	62.03	44.0	5.0	10/28/2014	49.03	22.62	--	--	--	39.41	
R-67AD	2	61.72	63.0	5.0	02/07/2012	67.03	23.75	--	--	--	37.97	
R-67AD	2	61.72	63.0	5.0	04/24/2012	67.00	24.33	--	--	--	37.39	
R-67AD	2	61.72	63.0	5.0	08/07/2012	66.92	25.89	--	--	--	35.83	
R-67AD	2	61.72	63.0	5.0	11/05/2012	66.97	26.50	--	--	--	35.22	
R-67AD	2	61.72	63.0	5.0	02/19/2013	66.92	27.43	--	--	--	34.29	
R-67AD	2	61.72	63.0	5.0	05/01/2013	66.93	29.31	--	--	--	32.41	
R-67AD	2	61.72	63.0	5.0	07/29/2013	66.88	30.14	--	--	--	31.58	
R-67AD	2	61.72	63.0	5.0	10/29/2013	66.87	31.20	--	--	--	30.52	
R-67AD	2	61.72	63.0	5.0	02/14/2014	67.02	28.28	--	--	--	33.44	
R-67AD	2	61.72	63.0	5.0	05/05/2014	66.81	24.80	--	--	--	36.92	
R-67AD	2	61.72	63.0	5.0	07/28/2014	66.93	23.33	--	--	--	38.39	
R-67AD	2	61.72	63.0	5.0	10/28/2014	66.92	22.31	--	--	--	39.41	
R-67FS	2	61.95	80.0	5.0	02/07/2012	85.16	23.97	--	--	--	37.98	
R-67FS	2	61.95	80.0	5.0	04/24/2012	85.20	24.54	--	--	--	37.41	
R-67FS	2	61.95	80.0	5.0	08/07/2012	85.13	26.10	--	--	--	35.85	
R-67FS	2	61.95	80.0	5.0	11/05/2012	85.18	26.71	--	--	--	35.24	
R-67FS	2	61.95	80.0	5.0	02/19/2013	85.13	27.69	--	--	--	34.26	
R-67FS	2	61.95	80.0	5.0	05/01/2013	85.13	29.52	--	--	--	32.43	
R-67FS	2	61.95	80.0	5.0	07/29/2013	85.03	30.29	--	--	--	31.66	
R-67FS	2	61.95	80.0	5.0	10/29/2013	85.14	31.26	--	--	--	30.69	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-67FS	2	61.95	80.0	5.0	02/14/2014	85.24	29.19	--	--	--	32.76	
R-67FS	2	61.95	80.0	5.0	05/05/2014	84.98	25.75	--	--	--	36.20	
R-67FS	2	61.95	80.0	5.0	07/28/2014	85.11	23.51	--	--	--	38.44	
R-67FS	2	61.95	80.0	5.0	10/28/2014	85.19	22.53	--	--	--	39.42	
R-68AS	2	56.67	10.0	15.0	02/07/2012	24.55	18.79	--	--	--	37.88	
R-68AS	2	56.67	10.0	15.0	04/24/2012	24.59	19.56	--	--	--	37.11	
R-68AS	2	56.67	10.0	15.0	08/07/2012	24.50	21.30	--	--	--	35.37	
R-68AS	2	56.67	10.0	15.0	11/06/2012	24.60	22.11	--	--	--	34.56	
R-68AS	2	56.67	10.0	15.0	02/26/2013	24.58	23.53	--	--	--	33.14	
R-68AS	2	56.67	10.0	15.0	05/01/2013	24.45	24.35/IWG	--	--	--	--	Insufficient H2O to Gauge
R-68AS	2	56.67	10.0	15.0	07/29/2013	24.55	24.30/IWG	--	--	--	--	Insufficient H2O to Gauge
R-68AS	2	56.67	10.0	15.0	10/28/2013	24.59	24.40/IWG	--	--	--	--	Insufficient H2O to Gauge
R-68AS	2	56.67	10.0	15.0	02/14/2014	24.62	23.51	--	--	--	33.16	
R-68AS	2	56.67	10.0	15.0	05/05/2014	24.59	19.75	--	--	--	36.92	
R-68AS	2	56.67	10.0	15.0	07/28/2014	24.61	18.30	--	--	--	38.37	
R-68AS	2	56.67	10.0	15.0	10/27/2014	24.62	17.27	--	--	--	39.40	
R-68AM	2	56.42	38.0	5.0	02/07/2012	42.74	18.55	--	--	--	37.87	
R-68AM	2	56.42	38.0	5.0	04/24/2012	42.82	19.31	--	--	--	37.11	
R-68AM	2	56.42	38.0	5.0	08/07/2012	42.75	21.30	--	--	--	35.12	
R-68AM	2	56.42	38.0	5.0	11/06/2012	42.74	22.05	--	--	--	34.37	
R-68AM	2	56.42	38.0	5.0	02/22/2013	42.70	23.33	--	--	--	33.09	
R-68AM	2	56.42	38.0	5.0	05/01/2013	42.72	25.15	--	--	--	31.27	
R-68AM	2	56.42	38.0	5.0	07/29/2013	42.15	25.60	--	--	--	30.82	
R-68AM	2	56.42	38.0	5.0	10/28/2013	42.70	27.21	--	--	--	29.21	
R-68AM	2	56.42	38.0	5.0	02/14/2014	42.74	23.24	--	--	--	33.18	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-68AM	2	56.42	38.0	5.0	05/05/2014	42.70	19.51	--	--	--	36.91	
R-68AM	2	56.42	38.0	5.0	07/28/2014	42.73	18.14	--	--	--	38.28	
R-68AM	2	56.42	38.0	5.0	10/27/2014	42.72	17.04	--	--	--	39.38	
R-68AD	2	56.57	58.0	5.0	02/07/2012	62.91	18.71	--	--	--	37.86	
R-68AD	2	56.57	58.0	5.0	04/24/2012	62.96	19.53	--	--	--	37.04	
R-68AD	2	56.57	58.0	5.0	08/07/2012	62.92	21.65	--	--	--	34.92	
R-68AD	2	56.57	58.0	5.0	11/06/2012	62.90	22.40	--	--	--	34.17	
R-68AD	2	56.57	58.0	5.0	02/22/2013	62.88	23.75	--	--	--	32.82	
R-68AD	2	56.57	58.0	5.0	05/01/2013	62.93	25.54	--	--	--	31.03	
R-68AD	2	56.57	58.0	5.0	07/29/2013	62.93	25.83	--	--	--	30.74	
R-68AD	2	56.57	58.0	5.0	10/28/2013	62.90	27.64	--	--	--	28.93	
R-68AD	2	56.57	58.0	5.0	02/14/2014	62.90	23.27	--	--	--	33.30	
R-68AD	2	56.57	58.0	5.0	05/05/2014	62.81	19.63	--	--	--	36.94	
R-68AD	2	56.57	58.0	5.0	07/28/2014	62.90	18.29	--	--	--	38.28	
R-68AD	2	56.57	58.0	5.0	10/27/2014	62.94	17.30	--	--	--	39.27	
R-68FS	2	56.38	77.0	5.0	02/07/2012	82.98	18.41	--	--	--	37.97	
R-68FS	2	56.38	77.0	5.0	04/24/2012	82.95	19.23	--	--	--	37.15	
R-68FS	2	56.38	77.0	5.0	08/07/2012	82.92	21.15	--	--	--	35.23	
R-68FS	2	56.38	77.0	5.0	11/06/2012	82.96	22.02	--	--	--	34.36	
R-68FS	2	56.38	77.0	5.0	02/22/2013	82.90	23.52	--	--	--	32.86	
R-68FS	2	56.38	77.0	5.0	05/01/2013	82.96	25.15	--	--	--	31.23	
R-68FS	2	56.38	77.0	5.0	07/29/2013	82.93	25.67	--	--	--	30.71	
R-68FS	2	56.38	77.0	5.0	10/28/2013	82.90	27.18	--	--	--	29.20	
R-68FS	2	56.38	77.0	5.0	02/14/2014	82.88	22.99	--	--	--	33.39	
R-68FS	2	56.38	77.0	5.0	05/05/2014	82.84	19.39	--	--	--	36.99	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-68FS	2	56.38	77.0	5.0	07/28/2014	82.93	18.03	--	--	--	38.35	
R-68FS	2	56.38	77.0	5.0	10/27/2014	82.91	17.00	--	--	--	39.38	
R-69AS	2	52.50	7.0	15.0	02/07/2012	22.20	15.01	--	--	--	37.49	
R-69AS	2	52.50	7.0	15.0	04/24/2012	21.86	15.42	--	--	--	37.08	
R-69AS	2	52.50	7.0	15.0	08/10/2012	21.85	17.37	--	--	--	35.13	
R-69AS	2	52.50	7.0	15.0	11/12/2012	21.81	18.58	--	--	--	33.92	
R-69AS	2	52.50	7.0	15.0	02/26/2013	21.80	19.67	--	--	--	32.83	
R-69AS	2	52.50	7.0	15.0	05/02/2013	21.80	21.45/IWG	--	--	--	--	Insufficient H2O to Gauge
R-69AS	2	52.50	7.0	15.0	07/29/2013	21.80	21.50/IWG	--	--	--	--	Insufficient H2O to Gauge
R-69AS	2	52.50	7.0	15.0	10/28/2013	21.79	21.56/IWG	--	--	--	--	Insufficient H2O to Gauge
R-69AS	2	52.50	7.0	15.0	02/14/2014	21.82	19.62	--	--	--	32.88	
R-69AS	2	52.50	7.0	15.0	05/05/2014	21.80	15.62	--	--	--	36.88	
R-69AS	2	52.50	7.0	15.0	07/28/2014	21.79	14.22	--	--	--	38.28	
R-69AS	2	52.50	7.0	15.0	10/27/2014	21.61	13.17	--	--	--	39.33	
R-69AM	2	52.52	40.0	5.0	02/07/2012	44.73	15.05	--	--	--	37.47	
R-69AM	2	52.52	40.0	5.0	04/24/2012	44.39	15.45	--	--	--	37.07	
R-69AM	2	52.52	40.0	5.0	08/10/2012	44.25	18.40	--	--	--	34.12	
R-69AM	2	52.52	40.0	5.0	11/12/2012	44.20	19.28	--	--	--	33.24	
R-69AM	2	52.52	40.0	5.0	02/26/2013	44.20	20.30	--	--	--	32.22	
R-69AM	2	52.52	40.0	5.0	05/02/2013	44.32	22.05	--	--	--	30.47	
R-69AM	2	52.52	40.0	5.0	07/29/2013	44.32	22.68	--	--	--	29.84	
R-69AM	2	52.52	40.0	5.0	10/28/2013	44.34	23.84	--	--	--	28.68	
R-69AM	2	52.52	40.0	5.0	02/14/2014	44.13	19.15	--	--	--	33.37	
R-69AM	2	52.52	40.0	5.0	05/05/2014	44.20	16.53	--	--	--	35.99	
R-69AM	2	52.52	40.0	5.0	07/28/2014	44.26	14.20	--	--	--	38.32	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-69AM	2	52.52	40.0	5.0	10/27/2014	44.16	13.38	--	--	--	39.14	
R-69AD	2	52.27	62.0	5.0	02/07/2012	67.03	14.80	--	--	--	37.47	
R-69AD	2	52.27	62.0	5.0	04/24/2012	66.69	15.24	--	--	--	37.03	
R-69AD	2	52.27	62.0	5.0	08/10/2012	66.65	18.10	--	--	--	34.17	
R-69AD	2	52.27	62.0	5.0	11/12/2012	66.61	18.90	--	--	--	33.37	
R-69AD	2	52.27	62.0	5.0	02/26/2013	66.58	19.84	--	--	--	32.43	
R-69AD	2	52.27	62.0	5.0	05/02/2013	66.57	21.73	--	--	--	30.54	
R-69AD	2	52.27	62.0	5.0	07/29/2013	66.65	22.05	--	--	--	30.22	
R-69AD	2	52.27	62.0	5.0	10/28/2013	66.56	23.76	--	--	--	28.51	
R-69AD	2	52.27	62.0	5.0	02/14/2014	66.63	18.87	--	--	--	33.40	
R-69AD	2	52.27	62.0	5.0	05/05/2014	66.52	15.37	--	--	--	36.90	
R-69AD	2	52.27	62.0	5.0	07/28/2014	66.61	14.04	--	--	--	38.23	
R-69AD	2	52.27	62.0	5.0	10/27/2014	66.58	12.90	--	--	--	39.37	
R-69FS	2	52.72	77.0	5.0	02/07/2012	82.05	14.40	--	--	--	38.32	
R-69FS	2	52.72	77.0	5.0	04/24/2012	81.72	15.02	--	--	--	37.70	
R-69FS	2	52.72	77.0	5.0	08/10/2012	81.70	16.80	--	--	--	35.92	
R-69FS	2	52.72	77.0	5.0	11/12/2012	81.63	17.69	--	--	--	35.03	
R-69FS	2	52.72	77.0	5.0	02/26/2013	81.61	18.51	--	--	--	34.21	
R-69FS	2	52.72	77.0	5.0	05/02/2013	81.70	20.09	--	--	--	32.63	
R-69FS	2	52.72	77.0	5.0	07/29/2013	81.70	20.78	--	--	--	31.94	
R-69FS	2	52.72	77.0	5.0	10/28/2013	81.64	21.73	--	--	--	30.99	
R-69FS	2	52.72	77.0	5.0	02/14/2014	81.69	18.34	--	--	--	34.38	
R-69FS	2	52.72	77.0	5.0	05/05/2014	81.61	15.11	--	--	--	37.61	
R-69FS	2	52.72	77.0	5.0	07/28/2014	81.66	13.74	--	--	--	38.98	
R-69FS	2	52.72	77.0	5.0	10/27/2014	81.73	12.88	--	--	--	39.84	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-70AS	2	49.16	5.0	15.0	02/07/2012	19.90	9.82	--	--	--	39.34	
R-70AS	2	49.16	5.0	15.0	04/25/2012	19.83	10.36	--	--	--	38.80	
R-70AS	2	49.16	5.0	15.0	08/10/2012	19.70	11.45	--	--	--	37.71	
R-70AS	2	49.16	5.0	15.0	11/05/2012	19.94	12.11	--	--	--	37.05	
R-70AS	2	49.16	5.0	15.0	02/20/2013	19.88	13.10	--	--	--	36.06	
R-70AS	2	49.16	5.0	15.0	05/02/2013	19.72	13.92	--	--	--	35.24	
R-70AS	2	49.16	5.0	15.0	07/29/2013	19.72	14.48	--	--	--	34.68	
R-70AS	2	49.16	5.0	15.0	10/28/2013	19.90	14.92	--	--	--	34.24	
R-70AS	2	49.16	5.0	15.0	02/14/2014	19.72	13.76	--	--	--	35.40	
R-70AS	2	49.16	5.0	15.0	05/05/2014	19.68	11.26	--	--	--	37.90	
R-70AS	2	49.16	5.0	15.0	07/28/2014	19.88	10.07	--	--	--	39.09	
R-70AS	2	49.16	5.0	15.0	10/27/2014	19.81	9.21	--	--	--	39.95	
R-70AM	2	49.17	33.0	5.0	02/07/2012	37.97	9.93	--	--	--	39.24	
R-70AM	2	49.17	33.0	5.0	04/25/2012	37.85	10.30	--	--	--	38.87	
R-70AM	2	49.17	33.0	5.0	08/10/2012	37.95	11.70	--	--	--	37.47	
R-70AM	2	49.17	33.0	5.0	11/05/2012	37.92	12.50	--	--	--	36.67	
R-70AM	2	49.17	33.0	5.0	02/20/2013	37.90	13.08	--	--	--	36.09	
R-70AM	2	49.17	33.0	5.0	05/02/2013	37.90	14.30	--	--	--	34.87	
R-70AM	2	49.17	33.0	5.0	07/29/2013	37.90	14.95	--	--	--	34.22	
R-70AM	2	49.17	33.0	5.0	10/28/2013	37.92	16.84	--	--	--	32.33	
R-70AM	2	49.17	33.0	5.0	02/14/2014	37.90	14.23	--	--	--	34.94	
R-70AM	2	49.17	33.0	5.0	05/05/2014	37.89	13.44	--	--	--	35.73	
R-70AM	2	49.17	33.0	5.0	07/28/2014	37.89	10.51	--	--	--	38.66	
R-70AM	2	49.17	33.0	5.0	10/27/2014	37.92	9.70	--	--	--	39.47	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-70AD	2	48.94	51.0	5.0	02/07/2012	55.48	10.28	--	--	--	38.66	
R-70AD	2	48.94	51.0	5.0	04/25/2012	55.46	10.94	--	--	--	38.00	
R-70AD	2	48.94	51.0	5.0	08/10/2012	55.45	12.90	--	--	--	36.04	
R-70AD	2	48.94	51.0	5.0	11/05/2012	55.40	13.28	--	--	--	35.66	
R-70AD	2	48.94	51.0	5.0	02/20/2013	55.39	13.97	--	--	--	34.97	
R-70AD	2	48.94	51.0	5.0	05/02/2013	55.45	16.05	--	--	--	32.89	
R-70AD	2	48.94	51.0	5.0	07/29/2013	55.42	16.71	--	--	--	32.23	
R-70AD	2	48.94	51.0	5.0	10/28/2013	55.42	17.25	--	--	--	31.69	
R-70AD	2	48.94	51.0	5.0	02/14/2014	55.44	15.34	--	--	--	33.60	
R-70AD	2	48.94	51.0	5.0	05/05/2014	55.40	12.58	--	--	--	36.36	
R-70AD	2	48.94	51.0	5.0	07/28/2014	55.44	10.24	--	--	--	38.70	
R-70AD	2	48.94	51.0	5.0	10/27/2014	55.46	9.32	--	--	--	39.62	
R-70FS	2	49.10	66.0	5.0	02/07/2012	71.34	9.77	--	--	--	39.33	
R-70FS	2	49.10	66.0	5.0	04/25/2012	71.41	10.34	--	--	--	38.76	
R-70FS	2	49.10	66.0	5.0	08/10/2012	71.38	11.83	--	--	--	37.27	
R-70FS	2	49.10	66.0	5.0	11/05/2012	71.78	12.21	--	--	--	36.89	
R-70FS	2	49.10	66.0	5.0	02/20/2013	71.28	13.64	--	--	--	35.46	
R-70FS	2	49.10	66.0	5.0	05/02/2013	71.34	14.90	--	--	--	34.20	
R-70FS	2	49.10	66.0	5.0	07/29/2013	71.28	15.57	--	--	--	33.53	
R-70FS	2	49.10	66.0	5.0	10/28/2013	71.30	17.14	--	--	--	31.96	
R-70FS	2	49.10	66.0	5.0	02/14/2014	71.32	15.10	--	--	--	34.00	
R-70FS	2	49.10	66.0	5.0	05/05/2014	71.30	11.09	--	--	--	38.01	
R-70FS	2	49.10	66.0	5.0	07/28/2014	71.24	9.80	--	--	--	39.30	
R-70FS	2	49.10	66.0	5.0	10/27/2014	71.32	9.04	--	--	--	40.06	
R-79AS	2	64.15	15.0	20.0	02/14/2012	34.70	30.80	--	--	--	33.35	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-79AS	2	64.15	15.0	20.0	04/27/2012	34.51	31.69	--	--	--	32.46	
R-79AS	2	64.15	15.0	20.0	08/14/2012	34.02	31.52	--	--	--	32.63	
R-79AS	2	64.15	15.0	20.0	10/29/2012	34.20	32.51	--	--	--	31.64	
R-79AS	2	64.15	15.0	20.0	02/07/2013	34.48	32.75	--	--	--	31.40	
R-79AS	2	64.15	15.0	20.0	05/03/2013	34.32	34.05/IWG	--	--	--	--	Insufficient H2O to Gauge
R-79AS	2	64.15	15.0	20.0	07/29/2013	34.45	34.26/IWG	--	--	--	--	Insufficient H2O to Gauge
R-79AS	2	64.15	15.0	20.0	10/28/2013	34.49	34.24/IWG	--	--	--	--	Insufficient H2O to Gauge
R-79AS	2	64.15	15.0	20.0	02/14/2014	34.78	31.71	--	--	--	32.44	
R-79AS	2	64.15	15.0	20.0	05/05/2014	34.48	27.24	--	--	--	36.91	
R-79AS	2	64.15	15.0	20.0	07/28/2014	34.55	25.20	--	--	--	38.95	
R-79AS	2	64.15	15.0	20.0	10/27/2014	34.49	23.37	--	--	--	40.78	
R-79AM	2	64.20	45.0	5.0	02/14/2012	49.95	30.75	--	--	--	33.45	
R-79AM	2	64.20	45.0	5.0	04/27/2012	49.61	32.10	--	--	--	32.10	
R-79AM	2	64.20	45.0	5.0	08/14/2012	49.54	31.90	--	--	--	32.30	
R-79AM	2	64.20	45.0	5.0	10/29/2012	49.52	33.04	--	--	--	31.16	
R-79AM	2	64.20	45.0	5.0	02/07/2013	49.48	32.95	--	--	--	31.25	
R-79AM	2	64.20	45.0	5.0	05/03/2013	49.52	34.35	--	--	--	29.85	
R-79AM	2	64.20	45.0	5.0	07/29/2013	49.48	35.17	--	--	--	29.03	
R-79AM	2	64.20	45.0	5.0	10/28/2013	49.50	35.71	--	--	--	28.49	
R-79AM	2	64.20	45.0	5.0	02/14/2014	49.50	31.64	--	--	--	32.56	
R-79AM	2	64.20	45.0	5.0	05/05/2014	49.46	27.30	--	--	--	36.90	
R-79AM	2	64.20	45.0	5.0	07/28/2014	49.50	25.04	--	--	--	39.16	
R-79AM	2	64.20	45.0	5.0	10/27/2014	49.55	23.17	--	--	--	41.03	
R-79AD	2	64.24	57.5	5.0	02/14/2012	62.70	30.95	--	--	--	33.29	
R-79AD	2	64.24	57.5	5.0	04/27/2012	62.38	32.44	--	--	--	31.80	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-79AD	2	64.24	57.5	5.0	08/14/2012	62.30	32.24	--	--	--	32.00	
R-79AD	2	64.24	57.5	5.0	10/29/2012	62.31	33.25	--	--	--	30.99	
R-79AD	2	64.24	57.5	5.0	02/07/2013	62.21	33.26	--	--	--	30.98	
R-79AD	2	64.24	57.5	5.0	05/03/2013	62.30	34.72	--	--	--	29.52	
R-79AD	2	64.24	57.5	5.0	07/29/2013	62.19	35.53	--	--	--	28.71	
R-79AD	2	64.24	57.5	5.0	10/28/2013	62.22	36.14	--	--	--	28.10	
R-79AD	2	64.24	57.5	5.0	02/14/2014	62.27	31.75	--	--	--	32.49	
R-79AD	2	64.24	57.5	5.0	05/05/2014	62.25	27.37	--	--	--	36.87	
R-79AD	2	64.24	57.5	5.0	07/28/2014	62.41	25.22	--	--	--	39.02	
R-79AD	2	64.24	57.5	5.0	10/27/2014	62.24	23.16	--	--	--	41.08	
R-80AS	2	48.57	6.0	15.0	02/06/2012	21.22	10.90	--	--	--	37.67	
R-80AS	2	48.57	6.0	15.0	04/23/2012	20.89	11.34	--	--	--	37.23	
R-80AS	2	48.57	6.0	15.0	08/07/2012	20.83	13.00	--	--	--	35.57	
R-80AS	2	48.57	6.0	15.0	11/05/2012	20.78	13.15	--	--	--	35.42	
R-80AS	2	48.57	6.0	15.0	02/27/2013	20.80	14.48	--	--	--	34.09	
R-80AS	2	48.57	6.0	15.0	04/30/2013	20.85	16.05	--	--	--	32.52	
R-80AS	2	48.57	6.0	15.0	07/29/2013	20.82	16.75	--	--	--	31.82	
R-80AS	2	48.57	6.0	15.0	10/29/2013	20.80	17.69	--	--	--	30.88	
R-80AS	2	48.57	6.0	15.0	02/14/2014	20.72	14.09	--	--	--	34.48	
R-80AS	2	48.57	6.0	15.0	05/05/2014	20.80	11.57	--	--	--	37.00	
R-80AS	2	48.57	6.0	15.0	07/28/2014	20.82	11.28	--	--	--	37.29	
R-80AS	2	48.57	6.0	15.0	10/27/2014	20.79	9.99	--	--	--	38.58	
R-80AM	2	48.50	29.0	5.0	02/06/2012	34.25	10.90	--	--	--	37.60	
R-80AM	2	48.50	29.0	5.0	04/23/2012	33.91	11.26	--	--	--	37.24	
R-80AM	2	48.50	29.0	5.0	08/07/2012	33.85	12.85	--	--	--	35.65	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-80AM	2	48.50	29.0	5.0	11/05/2012	33.84	13.20	--	--	--	35.30	
R-80AM	2	48.50	29.0	5.0	02/27/2013	33.80	14.30	--	--	--	34.20	
R-80AM	2	48.50	29.0	5.0	04/30/2013	33.85	16.04	--	--	--	32.46	
R-80AM	2	48.50	29.0	5.0	07/29/2013	33.85	16.75	--	--	--	31.75	
R-80AM	2	48.50	29.0	5.0	10/29/2013	33.81	17.72	--	--	--	30.78	
R-80AM	2	48.50	29.0	5.0	02/14/2014	33.80	14.05	--	--	--	34.45	
R-80AM	2	48.50	29.0	5.0	05/05/2014	33.81	11.53	--	--	--	36.97	
R-80AM	2	48.50	29.0	5.0	07/28/2014	33.92	10.65	--	--	--	37.85	
R-80AM	2	48.50	29.0	5.0	10/27/2014	33.84	9.91	--	--	--	38.59	
R-80AD	2	48.38	42.0	5.0	02/06/2012	47.58	10.75	--	--	--	37.63	
R-80AD	2	48.38	42.0	5.0	04/23/2012	47.21	11.14	--	--	--	37.24	
R-80AD	2	48.38	42.0	5.0	08/07/2012	47.18	12.96	--	--	--	35.42	
R-80AD	2	48.38	42.0	5.0	11/05/2012	47.15	13.06	--	--	--	35.32	
R-80AD	2	48.38	42.0	5.0	02/27/2013	47.12	14.30	--	--	--	34.08	
R-80AD	2	48.38	42.0	5.0	04/30/2013	47.22	15.95	--	--	--	32.43	
R-80AD	2	48.38	42.0	5.0	07/29/2013	47.20	16.68	--	--	--	31.70	
R-80AD	2	48.38	42.0	5.0	10/29/2013	47.14	17.80	--	--	--	30.58	
R-80AD	2	48.38	42.0	5.0	02/14/2014	47.05	13.91	--	--	--	34.47	
R-80AD	2	48.38	42.0	5.0	05/05/2014	47.13	11.41	--	--	--	36.97	
R-80AD	2	48.38	42.0	5.0	07/28/2014	46.98	10.56	--	--	--	37.82	
R-80AD	2	48.38	42.0	5.0	10/27/2014	47.16	9.72	--	--	--	38.66	
R-80AD	2	48.38	42.0	5.0	12/04/2014	47.17	8.88	--	--	--	39.50	
R-81AS	2	47.95	5.0	13.0	02/06/2012	18.00	9.55	--	--	--	38.40	
R-81AS	2	47.95	5.0	13.0	04/23/2012	17.99	10.20	--	--	--	37.75	
R-81AS	2	47.95	5.0	13.0	08/13/2012	17.84	12.19	--	--	--	35.76	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-81AS	2	47.95	5.0	13.0	11/07/2012	17.99	12.57	--	--	--	35.38	
R-81AS	2	47.95	5.0	13.0	02/26/2013	17.94	13.54	--	--	--	34.41	
R-81AS	2	47.95	5.0	13.0	05/03/2013	17.95	15.15	--	--	--	32.80	
R-81AS	2	47.95	5.0	13.0	07/29/2013	17.98	15.77	--	--	--	32.18	
R-81AS	2	47.95	5.0	13.0	10/28/2013	17.94	16.85	--	--	--	31.10	
R-81AS	2	47.95	5.0	13.0	02/14/2014	15.96	13.49	--	--	--	34.46	
R-81AS	2	47.95	5.0	13.0	05/05/2014	17.75	10.68	--	--	--	37.27	
R-81AS	2	47.95	5.0	13.0	07/28/2014	17.95	9.70	--	--	--	38.25	
R-81AS	2	47.95	5.0	13.0	10/27/2014	17.94	8.92	--	--	--	39.03	
R-81AD	2	48.17	18.0	5.0	02/06/2012	22.60	9.78	--	--	--	38.39	
R-81AD	2	48.17	18.0	5.0	04/23/2012	22.60	10.40	--	--	--	37.77	
R-81AD	2	48.17	18.0	5.0	08/13/2012	22.51	12.48	--	--	--	35.69	
R-81AD	2	48.17	18.0	5.0	11/07/2012	22.57	12.81	--	--	--	35.36	
R-81AD	2	48.17	18.0	5.0	02/26/2013	22.50	13.71	--	--	--	34.46	
R-81AD	2	48.17	18.0	5.0	05/03/2013	22.52	15.41	--	--	--	32.76	
R-81AD	2	48.17	18.0	5.0	07/29/2013	22.55	16.10	--	--	--	32.07	
R-81AD	2	48.17	18.0	5.0	10/28/2013	22.51	17.13	--	--	--	31.04	
R-81AD	2	48.17	18.0	5.0	02/14/2014	22.53	13.83	--	--	--	34.34	
R-81AD	2	48.17	18.0	5.0	05/05/2014	22.52	10.93	--	--	--	37.24	
R-81AD	2	48.17	18.0	5.0	07/28/2014	22.52	9.84	--	--	--	38.33	
R-81AD	2	48.17	18.0	5.0	10/27/2014	22.48	9.04	--	--	--	39.13	
R-82AS	2	46.92	6.0	15.0	02/06/2012	20.54	9.06	--	--	--	37.86	
R-82AS	2	46.92	6.0	15.0	04/23/2012	20.49	9.62	--	--	--	37.30	
R-82AS	2	46.92	6.0	15.0	08/06/2012	20.52	10.92	--	--	--	36.00	
R-82AS	2	46.92	6.0	15.0	11/05/2012	20.50	10.93	--	--	--	35.99	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-82AS	2	46.92	6.0	15.0	02/27/2013	20.50	11.60	--	--	--	35.32	
R-82AS	2	46.92	6.0	15.0	04/29/2013	20.40	12.98	--	--	--	33.94	
R-82AS	2	46.92	6.0	15.0	07/29/2013	20.50	13.57	--	--	--	33.35	
R-82AS	2	46.92	6.0	15.0	10/29/2013	20.48	14.00	--	--	--	32.92	
R-82AS	2	46.92	6.0	15.0	02/14/2014	20.50	11.30	--	--	--	35.62	
R-82AS	2	46.92	6.0	15.0	05/05/2014	20.43	9.85	--	--	--	37.07	
R-82AS	2	46.92	6.0	15.0	07/28/2014	20.52	9.54	--	--	--	37.38	
R-82AS	2	46.92	6.0	15.0	10/27/2014	20.42	8.92	--	--	--	38.00	
R-82AM	2	46.76	24.0	5.0	02/06/2012	28.94	8.86	--	--	--	37.90	
R-82AM	2	46.76	24.0	5.0	04/23/2012	29.00	9.54	--	--	--	37.22	
R-82AM	2	46.76	24.0	5.0	08/06/2012	29.00	10.86	--	--	--	35.90	
R-82AM	2	46.76	24.0	5.0	11/05/2012	28.35	10.86	--	--	--	35.90	
R-82AM	2	46.76	24.0	5.0	02/27/2013	28.90	11.46	--	--	--	35.30	
R-82AM	2	46.76	24.0	5.0	04/29/2013	28.96	12.90	--	--	--	33.86	
R-82AM	2	46.76	24.0	5.0	07/29/2013	29.00	13.46	--	--	--	33.30	
R-82AM	2	46.76	24.0	5.0	10/29/2013	28.93	13.84	--	--	--	32.92	
R-82AM	2	46.76	24.0	5.0	02/14/2014	28.92	11.02	--	--	--	35.74	
R-82AM	2	46.76	24.0	5.0	05/05/2014	28.93	9.74	--	--	--	37.02	
R-82AM	2	46.76	24.0	5.0	07/28/2014	28.96	9.32	--	--	--	37.44	
R-82AM	2	46.76	24.0	5.0	10/27/2014	28.92	8.84	--	--	--	37.92	
R-82AD	2	46.98	33.0	5.0	02/06/2012	37.43	9.29	--	--	--	37.69	
R-82AD	2	46.98	33.0	5.0	04/23/2012	37.46	10.24	--	--	--	36.74	
R-82AD	2	46.98	33.0	5.0	08/06/2012	37.46	11.90	--	--	--	35.08	
R-82AD	2	46.98	33.0	5.0	11/05/2012	37.40	11.70	--	--	--	35.28	
R-82AD	2	46.98	33.0	5.0	02/27/2013	37.39	12.60	--	--	--	34.38	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-82AD	2	46.98	33.0	5.0	04/29/2013	37.35	14.45	--	--	--	32.53	
R-82AD	2	46.98	33.0	5.0	07/29/2013	37.38	15.06	--	--	--	31.92	
R-82AD	2	46.98	33.0	5.0	10/29/2013	37.35	15.45	--	--	--	31.53	
R-82AD	2	46.98	33.0	5.0	02/14/2014	37.35	11.71	--	--	--	35.27	
R-82AD	2	46.98	33.0	5.0	05/05/2014	37.35	10.18	--	--	--	36.80	
R-82AD	2	46.98	33.0	5.0	07/28/2014	37.44	9.78	--	--	--	37.20	
R-82AD	2	46.98	33.0	5.0	10/27/2014	37.39	9.14	--	--	--	37.84	
R-83AS	2	49.12	8.0	15.0	02/06/2012	23.65	12.60	--	--	--	36.52	
R-83AS	2	49.12	8.0	15.0	04/25/2012	23.33	13.48	--	--	--	35.64	
R-83AS	2	49.12	8.0	15.0	08/06/2012	23.22	14.76	--	--	--	34.36	
R-83AS	2	49.12	8.0	15.0	11/05/2012	23.30	14.42	--	--	--	34.70	
R-83AS	2	49.12	8.0	15.0	02/22/2013	23.08	13.68	--	--	--	35.44	
R-83AS	2	49.12	8.0	15.0	04/29/2013	23.28	16.45	--	--	--	32.67	
R-83AS	2	49.12	8.0	15.0	07/29/2013	23.15	17.20	--	--	--	31.92	
R-83AS	2	49.12	8.0	15.0	10/28/2013	23.28	17.70	--	--	--	31.42	
R-83AS	2	49.12	8.0	15.0	02/14/2014	23.15	12.30	--	--	--	36.82	
R-83AS	2	49.12	8.0	15.0	05/05/2014	23.19	12.90	--	--	--	36.22	
R-83AS	2	49.12	8.0	15.0	07/28/2014	23.13	12.98	--	--	--	36.14	
R-83AS	2	49.12	8.0	15.0	10/27/2014	23.30	12.62	--	--	--	36.50	
R-83AM	2	48.90	32.0	5.0	02/06/2012	37.05	12.42	--	--	--	36.48	
R-83AM	2	48.90	32.0	5.0	04/25/2012	36.70	13.24	--	--	--	35.66	
R-83AM	2	48.90	32.0	5.0	08/06/2012	36.66	14.60	--	--	--	34.30	
R-83AM	2	48.90	32.0	5.0	11/05/2012	36.65	14.12	--	--	--	34.78	
R-83AM	2	48.90	32.0	5.0	02/22/2013	36.63	13.38	--	--	--	35.52	
R-83AM	2	48.90	32.0	5.0	04/29/2013	36.65	16.25	--	--	--	32.65	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-83AM	2	48.90	32.0	5.0	07/29/2013	36.69	17.07	--	--	--	31.83	
R-83AM	2	48.90	32.0	5.0	10/28/2013	36.62	17.55	--	--	--	31.35	
R-83AM	2	48.90	32.0	5.0	02/14/2014	36.57	12.10	--	--	--	36.80	
R-83AM	2	48.90	32.0	5.0	05/05/2014	36.61	12.68	--	--	--	36.22	
R-83AM	2	48.90	32.0	5.0	07/28/2014	36.68	12.96	--	--	--	35.94	
R-83AM	2	48.90	32.0	5.0	10/27/2014	36.64	12.41	--	--	--	36.49	
R-83AD	2	49.06	52.0	5.0	02/06/2012	57.35	12.65	--	--	--	36.41	
R-83AD	2	49.06	52.0	5.0	04/25/2012	57.10	13.44	--	--	--	35.62	
R-83AD	2	49.06	52.0	5.0	08/06/2012	57.01	14.78	--	--	--	34.28	
R-83AD	2	49.06	52.0	5.0	11/05/2012	57.00	14.38	--	--	--	34.68	
R-83AD	2	49.06	52.0	5.0	02/22/2013	56.96	13.30	--	--	--	35.76	
R-83AD	2	49.06	52.0	5.0	04/29/2013	57.00	16.30	--	--	--	32.76	
R-83AD	2	49.06	52.0	5.0	07/29/2013	57.04	17.03	--	--	--	32.03	
R-83AD	2	49.06	52.0	5.0	10/28/2013	57.00	17.54	--	--	--	31.52	
R-83AD	2	49.06	52.0	5.0	02/14/2014	56.94	12.19	--	--	--	36.87	
R-83AD	2	49.06	52.0	5.0	05/05/2014	56.96	12.92	--	--	--	36.14	
R-83AD	2	49.06	52.0	5.0	07/28/2014	57.02	13.04	--	--	--	36.02	
R-83AD	2	49.06	52.0	5.0	10/27/2014	57.00	12.68	--	--	--	36.38	
R-84AS	2	83.00	36.0	20.0	02/14/2012	54.60	48.73	--	--	--	34.27	
R-84AS	2	83.00	36.0	20.0	05/03/2012	54.76	49.58	--	--	--	33.42	
R-84AS	2	83.00	36.0	20.0	08/16/2012	54.50	49.88	--	--	--	33.12	
R-84AS	2	83.00	36.0	20.0	10/31/2012	54.61	51.04	--	--	--	31.96	
R-84AS	2	83.00	36.0	20.0	02/21/2013	54.75	52.20	--	--	--	30.80	Odor
R-84AS	2	83.00	36.0	20.0	05/06/2013	54.80	53.08	--	--	--	29.92	
R-84AS	2	83.00	36.0	20.0	07/30/2013	54.62	54.25/IWG	--	--	--	--	Insufficient H2O to Gauge

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-84AS	2	83.00	36.0	20.0	10/29/2013	54.58	54.48/IWG	--	--	--	--	Insufficient H2O to Gauge
R-84AS	2	83.00	36.0	20.0	02/14/2014	54.23	51.27	--	--	--	31.73	
R-84AS	2	83.00	36.0	20.0	05/07/2014	54.61	46.32	--	--	--	36.68	
R-84AS	2	83.00	36.0	20.0	07/29/2014	54.61	43.75	--	--	--	39.25	
R-84AS	2	83.00	36.0	20.0	10/28/2014	54.67	42.02	--	--	--	40.98	
R-84AM	2	82.92	62.5	5.0	02/14/2012	67.53	48.88	--	--	--	34.04	
R-84AM	2	82.92	62.5	5.0	05/03/2012	67.57	49.32	--	--	--	33.60	
R-84AM	2	82.92	62.5	5.0	08/16/2012	67.30	50.20	--	--	--	32.72	
R-84AM	2	82.92	62.5	5.0	10/31/2012	67.14	51.04	--	--	--	31.88	
R-84AM	2	82.92	62.5	5.0	02/21/2013	67.25	52.02	--	--	--	30.90	
R-84AM	2	82.92	62.5	5.0	05/06/2013	67.31	52.96	--	--	--	29.96	
R-84AM	2	82.92	62.5	5.0	07/30/2013	67.32	54.10	--	--	--	28.82	
R-84AM	2	82.92	62.5	5.0	10/29/2013	67.31	55.31	--	--	--	27.61	
R-84AM	2	82.92	62.5	5.0	02/14/2014	66.91	51.17	--	--	--	31.75	
R-84AM	2	82.92	62.5	5.0	05/07/2014	67.32	46.20	--	--	--	36.72	
R-84AM	2	82.92	62.5	5.0	07/29/2014	67.20	43.51	--	--	--	39.41	
R-84AM	2	82.92	62.5	5.0	10/28/2014	67.27	42.60	--	--	--	40.32	
R-84AD	2	82.86	73.0	5.0	02/14/2012	78.05	49.04	--	--	--	33.82	
R-84AD	2	82.86	73.0	5.0	05/03/2012	78.33	49.26	--	--	--	33.60	
R-84AD	2	82.86	73.0	5.0	08/16/2012	78.15	50.20	--	--	--	32.66	
R-84AD	2	82.86	73.0	5.0	10/31/2012	78.10	50.75	--	--	--	32.11	
R-84AD	2	82.86	73.0	5.0	02/21/2013	78.15	52.35	--	--	--	30.51	
R-84AD	2	82.86	73.0	5.0	05/06/2013	78.13	53.25	--	--	--	29.61	
R-84AD	2	82.86	73.0	5.0	07/30/2013	78.12	54.49	--	--	--	28.37	
R-84AD	2	82.86	73.0	5.0	10/29/2013	78.11	55.33	--	--	--	27.53	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-84AD	2	82.86	73.0	5.0	02/14/2014	77.93	50.92	--	--	--	31.94	
R-84AD	2	82.86	73.0	5.0	05/07/2014	78.09	46.10	--	--	--	36.76	
R-84AD	2	82.86	73.0	5.0	07/29/2014	78.07	43.73	--	--	--	39.13	
R-84AD	2	82.86	73.0	5.0	10/28/2014	78.10	41.98	--	--	--	40.88	
R-85AS	2	70.93	25.0	20.0	02/14/2012	44.92	36.92	--	--	--	34.01	
R-85AS	2	70.93	25.0	20.0	05/03/2012	44.62	37.55	--	--	--	33.38	
R-85AS	2	70.93	25.0	20.0	08/16/2012	44.50	37.80	--	--	--	33.13	
R-85AS	2	70.93	25.0	20.0	10/31/2012	44.61	38.81	--	--	--	32.12	
R-85AS	2	70.93	25.0	20.0	02/08/2013	44.42	39.75	--	--	--	31.18	
R-85AS	2	70.93	25.0	20.0	05/06/2013	44.64	41.01	--	--	--	29.92	
R-85AS	2	70.93	25.0	20.0	07/30/2013	44.68	42.28	--	--	--	28.65	
R-85AS	2	70.93	25.0	20.0	10/28/2013	44.72	43.06	--	--	--	27.87	
R-85AS	2	70.93	25.0	20.0	02/14/2014	44.33	39.57	--	--	--	31.36	
R-85AS	2	70.93	25.0	20.0	05/05/2014	44.54	34.23	--	--	--	36.70	
R-85AS	2	70.93	25.0	20.0	07/28/2014	44.92	31.68	--	--	--	39.25	
R-85AS	2	70.93	25.0	20.0	10/28/2014	44.51	29.89	--	--	--	41.04	
R-85AM	2	70.91	54.5	5.0	02/14/2012	59.87	37.00	--	--	--	33.91	
R-85AM	2	70.91	54.5	5.0	05/03/2012	59.85	38.13	--	--	--	32.78	
R-85AM	2	70.91	54.5	5.0	08/16/2012	59.85	38.15	--	--	--	32.76	
R-85AM	2	70.91	54.5	5.0	10/31/2012	59.78	39.12	--	--	--	31.79	
R-85AM	2	70.91	54.5	5.0	02/08/2013	59.80	39.93	--	--	--	30.98	
R-85AM	2	70.91	54.5	5.0	05/06/2013	59.76	40.80	--	--	--	30.11	
R-85AM	2	70.91	54.5	5.0	07/30/2013	59.88	42.76	--	--	--	28.15	
R-85AM	2	70.91	54.5	5.0	10/28/2013	59.81	43.40	--	--	--	27.51	
R-85AM	2	70.91	54.5	5.0	02/14/2014	59.65	38.97	--	--	--	31.94	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
R-85AM	2	70.91	54.5	5.0	05/05/2014	59.71	34.03	--	--	--	36.88	
R-85AM	2	70.91	54.5	5.0	07/28/2014	59.71	31.67	--	--	--	39.24	
R-85AM	2	70.91	54.5	5.0	10/28/2014	59.85	29.88	--	--	--	41.03	
R-85AD	2	70.67	69.0	5.0	02/14/2012	74.89	36.93	--	--	--	33.74	
R-85AD	2	70.67	69.0	5.0	05/03/2012	74.95	37.98	--	--	--	32.69	
R-85AD	2	70.67	69.0	5.0	08/16/2012	74.94	38.00	--	--	--	32.67	
R-85AD	2	70.67	69.0	5.0	10/31/2012	74.84	38.95	--	--	--	31.72	
R-85AD	2	70.67	69.0	5.0	02/08/2013	74.80	39.71	--	--	--	30.96	
R-85AD	2	70.67	69.0	5.0	05/06/2013	74.84	40.60	--	--	--	30.07	
R-85AD	2	70.67	69.0	5.0	07/30/2013	74.84	42.75	--	--	--	27.92	
R-85AD	2	70.67	69.0	5.0	10/28/2013	74.84	43.29	--	--	--	27.38	
R-85AD	2	70.67	69.0	5.0	02/14/2014	74.57	38.70	--	--	--	31.97	
R-85AD	2	70.67	69.0	5.0	05/05/2014	74.98	33.82	--	--	--	36.85	
R-85AD	2	70.67	69.0	5.0	07/28/2014	74.78	31.35	--	--	--	39.32	
R-85AD	2	70.67	69.0	5.0	10/28/2014	74.90	29.63	--	--	--	41.04	
R-86AS	2	59.00	12.0	15.5	05/07/2014	27.65	21.08	--	--	--	37.92	
R-86AS	2	59.00	12.0	15.5	07/28/2014	27.83	19.18	--	--	--	39.82	
R-86AS	2	59.00	12.0	15.5	10/27/2014	27.70	17.22	--	--	--	41.78	
R-87AS	2	62.15	13.0	15.5	05/07/2014	28.69	24.78	--	--	--	37.37	
R-87AS	2	62.15	13.0	15.5	08/07/2014	29.65	22.82	--	--	--	39.33	
R-87AS	2	62.15	13.0	15.5	10/29/2014	28.72	21.08	--	--	--	41.07	
RW-247	2	66.10	21.0	10.0	05/07/2014	28.83	28.83/IWG	--	--	--	--	Well Dry
RW-247	2	66.10	21.0	10.0	07/30/2014	28.85	27.47	--	--	--	38.63	
RW-247	2	66.10	21.0	10.0	10/27/2014	29.15	26.20	--	--	--	39.90	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters												
Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175												
Well Name	Well Diameter (inches)	Top of Casing Elevation (feet-msl)	Top of Screen Depth (feet-bgs)	Length of Screen (feet)	Date Gauged	Total Well Depth (feet-toc)	Depth to Water (feet-toc)	Depth to In-Well LNAPL (feet-toc)	In-Well LNAPL Thickness (feet)	In-Well LNAPL Specific Gravity	Groundwater Elevation (feet-msl)	Comment
T-11	4	60.35	5.0	30.0	02/07/2012	39.48	22.29	--	--	--	38.06	
T-11	4	60.35	5.0	30.0	04/30/2012	39.40	22.15	--	--	--	38.20	
T-11	4	60.35	5.0	30.0	08/13/2012	39.42	22.51	--	--	--	37.84	
T-11	4	60.35	5.0	30.0	11/01/2012	39.49	23.65	--	--	--	36.70	
T-11	4	60.35	5.0	30.0	02/06/2013	39.35	23.23	--	--	--	37.12	
T-11	4	60.35	5.0	30.0	05/02/2013	39.27	23.86	--	--	--	36.49	
T-11	4	60.35	5.0	30.0	07/29/2013	39.39	24.18	--	--	--	36.17	
T-11	4	60.35	5.0	30.0	10/28/2013	39.41	24.39	--	--	--	35.96	
T-11	4	60.35	5.0	30.0	02/14/2014	39.41	24.19	--	--	--	36.16	
T-11	4	60.35	5.0	30.0	05/05/2014	39.38	21.34	--	--	--	39.01	
T-11	4	60.35	5.0	30.0	07/30/2014	39.38	20.07	--	--	--	40.28	
T-11	4	60.35	5.0	30.0	10/27/2014	39.26	17.54	--	--	--	42.81	
T-12	4	60.02	5.0	30.0	02/07/2012	39.53	20.37	--	--	--	39.65	
T-12	4	60.02	5.0	30.0	04/30/2012	39.54	20.23	--	--	--	39.79	
T-12	4	60.02	5.0	30.0	08/13/2012	39.53	20.40	--	--	--	39.62	
T-12	4	60.02	5.0	30.0	11/01/2012	39.51	21.47	--	--	--	38.55	
T-12	4	60.02	5.0	30.0	02/06/2013	39.43	21.43	--	--	--	38.59	
T-12	4	60.02	5.0	30.0	05/02/2013	39.48	21.74	--	--	--	38.28	
T-12	4	60.02	5.0	30.0	07/29/2013	39.45	22.00	--	--	--	38.02	
T-12	4	60.02	5.0	30.0	10/28/2013	39.51	22.10	--	--	--	37.92	
T-12	4	60.02	5.0	30.0	02/14/2014	39.46	21.72	--	--	--	38.30	
T-12	4	60.02	5.0	30.0	05/05/2014	39.50	19.70	--	--	--	40.32	
T-12	4	60.02	5.0	30.0	07/30/2014	39.48	18.70	--	--	--	41.32	
T-12	4	60.02	5.0	30.0	10/27/2014	39.50	16.12	--	--	--	43.90	

Table 3

Historical Off-Terminal Groundwater Monitoring Well Details and Gauging Data for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Notes:

Top of screen depth and length of screen taken from well construction data .

Total well depth as measured this quarter.

In-Well LNAPL Specific gravity values are taken from First Quarter 2002 Groundwater Monitoring report. A value of 0.78 has been used in calculating groundwater elevation.

IWG = Insufficient water to gauge

NA = Not applicable

feet-msl = Feet above mean sea level

feet-bgs = Feet below ground surface

feet-toc = Feet from top of casing

LNAPL = Light Non-Aqueous Phase Liquid

-- = Not Available / Not Applicable

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-9	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/IWG
R-9	--	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/IWG
R-9	--	29.28	08/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry / Gauged Only
R-9	--	--	11/01/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-9	--	--	02/07/13	--	--	--	--	--	--	--	--	--	--	--	1.41	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/ Insufficient H2O to Gauge
R-9	--	--	05/02/13	--	--	--	--	--	--	--	--	--	--	--	0.36	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/ Insufficient H2O to Gauge
R-9	--	29.21	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/Well Dry
R-9	--	29.23	10/30/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-9	--	29.02	02/13/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/Well Dry
R-9	36.81	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.90	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-9	38.99	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	1.17	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-9	41.02	--	11/04/14	<0.50	<0.50	2.5	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	0.66	262	--	--	--	--	--	--	--	--	--	--	
R-10	35.15	--	02/14/12	4.1	0.87	<2.5	2.7	6.4	2.6	<2.5	<5.0	<5.0	<5.0	<50	0.09	58	300	--	--	12	340	0.5	0.56	<0.25	330	Odor	
R-10	35.20	--	04/30/12	8.4	2.3	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<100	0.33	-33	--	--	--	--	--	--	--	--	--	--	
R-10	35.10	--	08/13/12	4.0	32 Z	1.6	1.0	5.8	1.7	1.1	<2.0	<2.0	<2.0	<20	0.46	-225	--	--	--	--	--	--	--	--	--	--	
R-10	--	26.80	11/07/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-10	--	--	02/06/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-10	--	26.78	05/02/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-10	--	26.80	08/06/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-10	--	26.74	10/30/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-10	--	26.77	02/13/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-10	37.67	--	05/12/14	<0.50	<0.50	<0.50	<0.50	0.79	0.96	<0.50	<1.0	<1.0	<1.0	<10	0.43	137	--	--	--	--	--	--	--	--	--	--	
R-10 (DS#9)	--	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-10

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters																												
Mission Valley Terminal, San Diego, CA																												
ARCADIS CM010143.0175																												
Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
R-10	39.48	--	08/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	149	--	--	--	--	--	--	--	--	--	--	
R-10	41.34	--	11/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.74	159	250	--	--	20	<10	0.0	<0.050	3.2	340		
R-11	35.82	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.57	315	--	--	--	--	--	--	--	--	--	--	
R-11 (DS#16)	--	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-11
R-11	36.10	--	05/04/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.63	134	--	--	--	--	--	--	--	--	--	--	
R-11	35.80	--	08/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.09	229	--	--	--	--	--	--	--	--	--	--	
R-11	34.97	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.02	152	--	--	--	--	--	--	--	--	--	--	
R-11 (DS#11)	--	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-11
R-11	34.41	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.23	147	--	--	--	--	--	--	--	--	--	--	
R-11 (DS#7)	--	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-11
R-11	33.72	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.98	129	--	--	--	--	--	--	--	--	--	--	
R-11 (DS#8)	--	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-11
R-11	33.17	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.90	215	--	--	--	--	--	--	--	--	--	--	
R-11	32.68	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.64	11	--	--	--	--	--	--	--	--	--	--	
R-11	33.18	--	02/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.54	73	--	--	--	--	--	--	--	--	--	--	
R-11	38.08	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	2.51	137	--	--	--	--	--	--	--	--	--	--	
R-11	39.95	--	08/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.77	105	--	--	--	--	--	--	--	--	--	--	
R-11	42.01	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.44	211	--	--	--	--	--	--	--	--	--	--	
R-12	--	29.74	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry	
R-12	--	29.38	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry	
R-12	--	29.30	08/13/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry	
R-12	--	29.31	11/07/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry	
R-12	--	29.23	02/07/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry	
R-12	--	29.25	05/06/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry	
R-12	--	29.32	08/06/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry	
R-12	--	29.32	10/30/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry	
R-12	--	29.32	02/06/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
R-12	36.95	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	2.83	203	--	--	--	--	--	--	--	--	--	--	
R-12	39.30	--	08/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	2.89	16	--	--	--	--	--	--	--	--	--	--	
R-12	41.23	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.70	208	--	--	--	--	--	--	--	--	--	--	
R-15	34.54	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	0.16	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-15	34.28	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.75	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-15	34.14	--	08/13/12	--	--	--	--	--	--	--	--	--	--	--	--	0.24	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-15	33.02	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.18	146	--	--	--	--	--	--	--	--	--	--	
R-15 (DS#9)	--	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-15
R-15	32.70	--	02/07/13	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-15	31.74	--	05/06/13	--	--	--	--	--	--	--	--	--	--	--	--	0.38	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-15	30.62	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.92	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-15	30.16	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.72	116	--	--	--	--	--	--	--	--	--	--	
R-15	31.83	--	02/06/14	--	--	--	--	--	--	--	--	--	--	--	--	0.61	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-15	37.41	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.24	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-15	39.52	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.94	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-15	41.41	--	11/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.82	156	--	--	--	--	--	--	--	--	--	--	
R-16	39.26	--	02/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.52	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-16	39.55	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.36	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-16	39.26	--	08/17/12	--	--	--	--	--	--	--	--	--	--	--	--	0.10	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-16	38.73	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	62	--	--	--	--	--	--	--	--	--	--	
R-16	38.18	--	02/22/13	--	--	--	--	--	--	--	--	--	--	--	--	0.54	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-16	38.04	--	05/02/13	--	--	--	--	--	--	--	--	--	--	--	--	0.61	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-16	37.54	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.80	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-16	37.18	--	11/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.47	59	--	--	--	--	--	--	0.0	--	--	--	
R-16	36.97	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-16	39.73	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.26	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-16	41.12	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	1.23	--	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-16	42.91	--	11/03/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	1.01	141	--	--	--	--	--	--	--	--	--	
R-17	37.98	--	02/07/12	--	--	--	--	--	--	--	--	--	--	--	--	0.11	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-17	37.54	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.39	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-17	35.76	--	08/07/12	--	--	--	--	--	--	--	--	--	--	--	--	0.28	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-17	35.15	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	<1.0	<1.0	<1.0	<10	--	0.31	-53	--	--	--	--	--	--	--	--	--	
R-17	33.93	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	--	0.62	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-17	32.29	--	05/01/13	--	--	--	--	--	--	--	--	--	--	--	--	0.42	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-17	31.32	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.59	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-17	30.24	--	11/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.26	-37	--	--	--	--	--	0.0	--	--	--	
R-17 (DS#20)	--	--	11/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-17
R-17	33.40	--	02/11/14	--	--	--	--	--	--	--	--	--	--	--	--	0.49	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-17	37.00	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.43	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-17	38.35	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.57	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-17	39.40	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.61	<1.0	<1.0	<1.0	<10	--	0.68	22	--	--	--	--	--	--	--	--	--	
R-18	42.38	--	02/07/12	--	--	--	--	--	--	--	--	--	--	--	--	0.17	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-18	42.72	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.23	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-18	42.54	--	08/13/12	--	--	--	--	--	--	--	--	--	--	--	--	0.13	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-18	41.69	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	-1	390	--	--	5.9	180	2.0	2.5	<0.25	280	
R-18	41.77	--	02/06/13	--	--	--	--	--	--	--	--	--	--	--	--	0.78	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-18	41.50	--	05/02/13	--	--	--	--	--	--	--	--	--	--	--	--	0.52	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-18	41.40	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	1.50	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-18	41.04	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.50	-96	390	--	--	5.4	280	2.0	2.4	<0.25	260	
R-18	40.51	--	02/13/14	--	--	--	--	--	--	--	--	--	--	--	--	0.66	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-18	42.49	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.31	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-18	42.84	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.72	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-18	45.30	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.45	139	350	--	--	4.5	17	0.8	<0.050	1.5	320	
R-19	43.01	--	02/08/12	--	--	--	--	--	--	--	--	--	--	--	--	0.89	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters																											
Mission Valley Terminal, San Diego, CA																											
ARCADIS CM010143.0175																											
Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-19	42.82	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	2.06	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-19	42.56	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	0.39	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-19	42.01	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.61	89	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-19	41.89	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	0.83	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-19	41.81	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	3.03	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-19	41.46	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	2.84	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-19	41.05	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.75	144	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-19	40.77	--	02/13/14	--	--	--	--	--	--	--	--	--	--	--	0.68	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-19	41.36	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.27	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-19	41.97	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.64	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-19	42.49	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	1.27	42	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-20	39.84	--	02/06/12	--	--	--	--	--	--	--	--	--	--	--	0.34	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-20	39.84	--	04/23/12	--	--	--	--	--	--	--	--	--	--	--	0.17	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-20	39.05	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	0.14	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-20	38.49	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.13	16	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-20	37.58	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	0.42	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-20	36.94	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	0.44	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-20	36.56	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	0.62	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-20	36.15	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.57	160	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-20	36.61	--	02/13/14	--	--	--	--	--	--	--	--	--	--	--	0.81	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-20	38.63	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.32	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-20	39.73	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.66	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-20	40.39	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	1.39	169	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-21AS	37.85	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.30	88	73	--	--	11	760	1.8	0.082	<0.25	5.1	--	Duplicate of R-21AS
R-21AS (DS#6)	--	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-21AS
R-21AS	37.46	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.59	168	41	--	--	6.7	47	0.0	<0.050	0.37	6.1	--	Duplicate of R-21AS
R-21AS	34.87	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.54	<1.0	<1.0	<1.0	<10	0.81	-46	84	--	--	9.2	4,600	4.2	10	<0.25	17	--	Duplicate of R-21AS

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-21AS (DS#11)	--	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-21AS
R-21AS	34.69	--	11/05/12	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.72	136	66	--	--	15	870	0.0	1.6	<0.25	17	
R-21AS	33.62	--	02/26/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	-31	46	--	--	11	32	0.0	0.16	<0.25	13	
R-21AS	31.22	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	-27	62	--	--	5.0	780	1.6	0.13	<0.25	13	
R-21AS	30.70	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.78	-55	100	--	--	9.9	5,300	1.8	6.0	<0.25	13	
R-21AS	29.69	--	11/04/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.45	170	61	--	--	17	750	0.6	0.13	<0.25	21	
R-21AS	34.29	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.54	-27	58	--	--	12	210	0.0	0.33	<0.25	9.1	
R-21AS	36.87	--	05/09/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.38	-98	110	--	--	25	1,200	5.0	0.88	<0.25	54	
R-21AS (DS#6)	--	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-21AS
R-21AS	37.80	--	08/01/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	1.02	-108	220	--	--	36	1,100	5.0	36	<0.25	150	
R-21AS	38.69	--	11/03/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	1.37	-90	79	--	--	37	250	0.0	0.59	<0.25	22	
R-21AM	37.75	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.70	159	330	--	--	5.7	18	2.6	1.1	<0.25	400	
R-21AM	37.54	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.50	-88	340	--	--	5.6	11	2.0	2.3	<0.25	410	
R-21AM	34.76	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.80	76	320	--	--	3.0	<10	3.4	<0.050	<0.25	410	
R-21AM	34.55	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	14	--	0.63	-13	320	--	--	3.9	<10	3.8	1.6	<0.25	420	
R-21AM	33.17	--	02/26/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	11	--	0.34	2	320	--	--	3.2	<10	1.8	2.4	<0.25	500	
R-21AM	31.19	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.30	-94	310	--	--	3.0	<10	2.8	<0.050	<0.25	470	
R-21AM	30.69	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.71	-87	310	--	--	2.6	15	0.8	3.4	<0.25	570	
R-21AM	29.51	--	11/04/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.95	-76	320	--	--	3.0	<10	0.0	<0.050	<0.25	510	
R-21AM	34.24	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	28	--	0.70	-91	310	--	--	4.4	22	2.8	3.3	<0.25	390	
R-21AM	36.86	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.46	-88	290	--	--	3.4	<10	3.2	<0.050	<0.25	360	
R-21AM	37.74	--	08/01/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.73	-102	320	--	--	3.3	<10	0.0	<0.050	<0.25	360	
R-21AM (DS#12)	--	--	08/01/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-21AM
R-21AM	38.51	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.14	-79	320	--	--	3.1	<10	0.0	<0.050	0.33	390	
R-21AD	37.87	--	02/07/12	<0.50	<0.50	1.6	1.0	0.63	0.92	1.4	<1.0	<1.0	<1.0	<10	--	0.50	94	390	--	--	6.5	<10	3.2	<0.050	0.26	280	
R-21AD	37.52	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.49	-48	430	--	--	9.1	<10	2.2	<0.050	<0.25	190	
R-21AD	34.79	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.81	-22	470	--	--	6.4	14	1.8	<0.050	<0.25	160	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
R-21AD	34.58	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.87	<1.0	<1.0	<1.0	<10	--	0.62	-13	350	--	--	3.4	<10	1.8	<0.050	<0.25	370		
R-21AD (DS#15)	--	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.60	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-21AD
R-21AD	33.55	--	02/26/13	<0.50	<0.50	2.8	8.6	1.3	7.7	0.50	<1.0	<1.0	<1.0	<10	--	0.66	11	330	--	--	3.4	<10	2.2	0.060	<0.25	400		
R-21AD (DS#20)	--	--	02/26/13	<0.50	<0.50	3.0	9.5	1.5	8.6	0.54	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-21AD
R-21AD	31.21	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.81	<1.0	<1.0	<1.0	<10	--	0.37	-76	390	--	--	4.1	150	0.0	0.070	<0.25	280		
R-21AD (DS#4)	--	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.84	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-21AD
R-21AD	30.71	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.53	<1.0	<1.0	<1.0	<10	--	0.69	-55	440	--	--	4.8	<10	1.8	0.12	<0.25	210		
R-21AD (DS#6)	--	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-21AD
R-21AD	29.39	--	11/04/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.57	<1.0	<1.0	<1.0	<10	--	0.91	-35	490	--	--	5.3	<10	0.0	<0.050	<0.25	180		
R-21AD	34.22	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.88	<1.0	<1.0	<1.0	<10	--	0.75	-66	360	--	--	5.4	<10	0.0	<0.050	<0.25	280		
R-21AD	36.84	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.61	-64	380	--	--	5.2	<10	2.0	<0.050	<0.25	290		
R-21AD	37.77	--	08/01/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.54	<1.0	<1.0	<1.0	<10	--	1.74	-70	310	--	--	5.0	20	0.0	<0.050	<0.25	280		
R-21AD	38.52	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.12	32	330	--	--	4.5	<10	0.0	0.053	0.41	320		
R-21FS	39.44	--	02/07/12	<0.50	<0.50	0.53	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	22	--	0.80	112	310	--	--	3.2	<10	1.6	<0.050	<0.25	300		
R-21FS	37.24	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	13	--	0.43	21	260	--	--	3.9	13	0.0	<0.050	<0.25	250		
R-21FS	36.97	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	-20	260	--	--	1.8	12	1.2	<0.050	<0.25	270		
R-21FS	36.73	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	18	--	0.86	22	220	--	--	2.2	13	0.0	<0.050	<0.25	230		
R-21FS	36.40	--	02/26/13	<0.50	<0.50	1.3	4.6	0.84	4.9	<0.50	<1.0	<1.0	<1.0	<10	--	0.80	8	240	--	--	2.3	<10	0.0	0.096	<0.25	250		
R-21FS	34.19	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	30	--	0.52	73	250	--	--	2.0	23	0.0	<0.050	<0.25	220		
R-21FS	33.63	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	19	--	0.85	-67	280	--	--	2.4	<10	0.0	0.20	<0.25	230		
R-21FS	32.77	--	11/04/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.84	189	220	--	--	1.5	21	0.0	<0.050	<0.25	200		
R-21FS	35.07	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	0.72	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	-18	470	--	--	1.7	<10	0.0	<0.050	<0.25	190		
R-21FS	34.85	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.71	58	190	--	--	1.5	<10	0.0	<0.050	<0.25	190		
R-21FS	39.15	--	08/01/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.98	-1	160	--	--	2.1	21	0.0	<0.050	<0.25	190		
R-21FS	39.71	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	10	--	1.71	36	180	--	--	2.0	11	0.0	<0.050	<0.25	210		
R-22	39.78	--	02/08/12	--	--	--	--	--	--	--	--	--	--	--	--	0.92	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-22	39.45	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.41	--	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-22	38.93	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-22	38.10	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.51	79	290	--	--	1.9	<10	0.0	<0.050	8.1	240	
R-22	37.65	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	0.23	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-22	37.46	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	0.33	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-22	37.02	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	0.58	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-22	36.44	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.38	157	300	--	--	1.4	<10	0.0	<0.050	9.4	320	
R-22	36.61	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	0.74	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-22	38.08	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.32	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-22	39.59	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.62	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-22	40.88	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.72	121	260	--	--	1.6	<10	0.0	<0.050	9.8	340	
R-23AS	36.66	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.11	-44	470	--	--	10	120	1.4	3.6	<0.25	170	
R-23AS	36.16	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.31	-48	480	--	--	15	97	2.0	5.0	<0.25	160	
R-23AS	34.76	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	-39	570	--	--	8.3	83	2.6	4.2	<0.25	160	
R-23AS	34.88	--	10/31/12	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.38	-44	470	--	--	7.8	55	4.8	4.4	<0.25	170	
R-23AS	36.42	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.52	-32	500	--	--	7.9	94	4.0	5.6	<0.25	190	
R-23AS (DS#14)	--	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-23AS
R-23AS	35.48	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.63	-75	540	--	--	6.6	120	2.8	4.2	<0.25	170	
R-23AS	34.20	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.45	-75	550	--	--	12	100	1.6	5.2	<0.25	150	
R-23AS	34.49	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.12	-10	920	--	--	15	14	1.4	0.25	<0.25	71	
R-23AS (DS#16)	--	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-23AS
R-23AS	37.21	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.18	-61	420	--	--	8.7	55	1.8	1.5	<0.25	190	
R-23AS	35.42	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.45	-87	500	--	--	6.6	64	5.2	4.3	<0.25	160	
R-23AS	34.78	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.02	-92	980	--	--	23	49	0.2	0.052	<0.25	34	
R-23AS	34.99	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.13	-75	690	--	--	10	200	1.8	1.8	<0.25	110	
R-23AS (DS#3)	--	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-23AS
R-23AM	36.29	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.1	<1.0	<1.0	<1.0	11	--	0.13	-90	430	--	--	4.9	160	2.0	1.9	<0.25	150	
R-23AM	36.10	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.2	<1.0	<1.0	<1.0	11	--	1.11	-130	400	--	--	8.2	1,300	2.0	2.0	<0.25	160	

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-23AM (DS#16)	--	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.1	<1.0	<1.0	<1.0	12	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-23AM
R-23AM	34.63	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	<1.0	<1.0	<1.0	<10	--	0.13	-119	420	--	--	5.0	1,600	2.2	1.4	<0.25	170	
R-23AM (DS#12)	--	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.3	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-23AM
R-23AM	34.83	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.4	<1.0	<1.0	<1.0	<10	--	0.13	-117	450	--	--	4.3	1,900	3.0	2.6	<0.25	160	
R-23AM (DS#6)	--	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.0	<1.0	<1.0	<1.0	11	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-23AM
R-23AM	36.48	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.9	<1.0	<1.0	<1.0	<10	--	0.57	-101	430	--	--	4.6	1,400	2.2	1.4	<0.25	260	
R-23AM (DS#15)	--	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	5.6	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-23AM
R-23AM	35.53	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.9	<1.0	<1.0	<1.0	<10	--	0.29	-75	430	--	--	4.1	1,400	0.0	1.4	<0.25	170	
R-23AM	34.04	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.7	<1.0	<1.0	<1.0	<10	--	0.65	-108	430	--	--	6.3	280	0.7	0.10	0.57	170	
R-23AM	34.78	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.7	<1.0	<1.0	<1.0	<10	--	0.86	-79	410	--	--	4.7	240	1.2	0.38	<0.25	180	
R-23AM	35.23	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	<1.0	<1.0	<1.0	<10	--	0.18	-76	390	--	--	5.8	370	2.4	0.44	<0.25	180	
R-23AM	35.26	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.2	<1.0	<1.0	<1.0	14	--	0.57	-117	380	--	--	3.7	1,400	3.6	1.5	<0.25	170	
R-23AM	34.71	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	5.2	<1.0	<1.0	<1.0	<10	--	0.42	-61	380	--	--	4.4	170	0.8	<0.050	0.43	170	
R-23AM	34.90	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.4	<1.0	<1.0	<1.0	19	--	0.97	-116	380	--	--	4.0	1,300	2.0	1.8	<0.25	170	
R-23AD	36.66	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	0.98	<0.50	<1.0	<1.0	<1.0	<10	--	0.16	-70	270	--	--	3.9	<10	2.4	<0.050	2.1	120	
R-23AD	36.06	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.34	-71	270	--	--	6.6	<10	2.6	<0.050	1.6	130	
R-23AD	34.61	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.37	-94	290	--	--	5.1	<10	2.0	<0.050	1.4	150	
R-23AD	34.76	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.21	-85	310	--	--	4.0	<10	4.0	<0.050	1.0	150	
R-23AD	36.46	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	0.92	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	-74	340	--	--	4.0	<10	4.6	0.065	0.83	170	
R-23AD	35.65	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.56	-103	330	--	--	3.5	<10	3.2	<0.050	0.78	170	
R-23AD	33.96	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.46	-108	360	--	--	3.8	<10	1.8	<0.050	0.83	160	
R-23AD	34.76	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.71	-108	320	--	--	3.8	53	0.0	<0.050	0.96	160	
R-23AD	35.16	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.65	-106	310	--	--	7.9	21	0.0	<0.050	0.87	170	
R-23AD	35.28	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.57	-115	140	--	--	7.2	40	5.2	<0.050	6.6	64	
R-23AD	34.60	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.51	-134	240	--	--	5.7	21	1.6	<0.050	3.0	120	
R-23AD	34.89	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.21	-115	250	--	--	6.2	79	0.0	<0.050	1.6	130	
R-23FS	36.43	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.24	-76	230	--	--	1.3	<10	0.0	<0.050	<0.25	170	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
R-23FS	36.13	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.64	-43	220	--	--	3.1	<10	0.5	<0.050	<0.25	170		
R-23FS	34.81	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	-99	210	--	--	1.5	<10	1.0	<0.050	<0.25	170		
R-23FS	34.94	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.29	-63	220	--	--	2.1	<10	0.2	<0.050	<0.25	160		
R-23FS	36.65	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	0.56	<0.50	<1.0	<1.0	<1.0	<10	--	0.37	-10	210	--	--	1.6	<10	0.0	<0.050	<0.25	180		
R-23FS	35.76	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	1.0	<0.50	<1.0	<1.0	<1.0	<10	--	0.35	-36	210	--	--	2.1	<10	0.0	<0.050	<0.25	170		
R-23FS	34.06	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	-95	220	--	--	1.2	19	0.0	<0.050	<0.25	160		
R-23FS (DS#13)	--	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-23FS
R-23FS	34.49	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	-93	220	--	--	1.3	16	0.0	<0.050	<0.25	170		
R-23FS (DS#14)	--	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-23FS
R-23FS	35.38	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.46	-84	210	--	--	2.4	57	0.0	<0.050	<0.25	160		
R-23FS	35.35	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	-93	140	--	--	9.0	33	1.0	0.12	3.1	98		
R-23FS	34.66	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.86	-131	180	--	--	4.9	43	1.4	<0.050	0.68	140		
R-23FS	35.12	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.19	-135	200	--	--	2.3	41	0.6	0.11	<0.25	160		
R-24AS	37.29	--	02/06/12	--	--	--	--	--	--	--	--	--	--	--	--	0.78	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AS	37.19	--	04/23/12	--	--	--	--	--	--	--	--	--	--	--	--	0.79	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AS	36.34	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	--	1.67	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AS	36.33	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.08	-77	1,200	--	--	14	1,400	5.0	16	<0.25	8.1		
R-24AS	36.36	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	--	1.11	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AS	36.09	--	04/30/13	--	--	--	--	--	--	--	--	--	--	--	--	1.29	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AS	35.79	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	1.24	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AS	35.72	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.69	-106	1,300	--	--	13	1,600	2.0	18	<0.25	11		
R-24AS	35.98	--	02/13/14	--	--	--	--	--	--	--	--	--	--	--	--	0.61	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AS	36.35	--	05/06/14	--	--	--	--	--	--	--	--	--	--	--	--	3.67	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AS	36.17	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.48	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AS	36.45	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.64	-91	620	--	--	12	1,100	0.8	6.3	<0.25	120		
R-24AM	35.50	--	02/06/12	--	--	--	--	--	--	--	--	--	--	--	--	0.71	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AM	36.10	--	04/23/12	--	--	--	--	--	--	--	--	--	--	--	--	0.69	--	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-24AM	35.57	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	1.51	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AM	35.26	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	-57	380	--	--	3.8	<10	1.2	0.90	<0.25	200	
R-24AM	35.86	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	1.08	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AM	35.39	--	04/30/13	--	--	--	--	--	--	--	--	--	--	--	2.41	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AM	34.89	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	2.49	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AM	35.31	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.91	-56	390	--	--	3.3	<10	1.4	0.66	<0.25	190	
R-24AM	35.26	--	02/13/14	--	--	--	--	--	--	--	--	--	--	--	0.67	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AM	37.36	--	05/06/14	--	--	--	--	--	--	--	--	--	--	--	1.91	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AM	35.28	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.98	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AM	35.55	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.72	-61	340	--	--	4.2	<10	0.8	0.24	<0.25	240	
R-24AD	36.30	--	02/06/12	--	--	--	--	--	--	--	--	--	--	--	0.89	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AD	36.14	--	04/23/12	--	--	--	--	--	--	--	--	--	--	--	0.47	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AD	35.27	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	1.34	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AD	35.21	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.21	-27	350	--	--	11	<10	1.4	<0.050	0.36	190	
R-24AD (DS#2)	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-24AD
R-24AD	35.59	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	0.88	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AD	35.26	--	04/30/13	--	--	--	--	--	--	--	--	--	--	--	1.38	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AD	34.89	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	1.03	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AD	35.30	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	-22	350	--	--	3.2	<10	1.0	<0.050	0.47	240	
R-24AD (DS#1)	--	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-24AD
R-24AD	35.29	--	02/13/14	--	--	--	--	--	--	--	--	--	--	--	0.39	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AD	33.57	--	05/06/14	--	--	--	--	--	--	--	--	--	--	--	1.76	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AD	35.33	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	1.21	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24AD	35.44	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.86	-52	310	--	--	5.2	<10	0.0	<0.050	0.43	170	
R-24FS	36.86	--	02/06/12	--	--	--	--	--	--	--	--	--	--	--	0.58	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24FS	36.94	--	04/23/12	--	--	--	--	--	--	--	--	--	--	--	0.39	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24FS	36.32	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	0.26	--	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-24FS	36.05	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.35	-43	210	--	--	1.2	<10	1.0	<0.050	<0.25	150	
R-24FS	36.27	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	--	0.75	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24FS	36.15	--	04/30/13	--	--	--	--	--	--	--	--	--	--	--	--	1.33	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24FS	35.70	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.89	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24FS	35.99	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	-32	190	--	--	1.2	<10	1.6	<0.050	<0.25	160	
R-24FS	36.14	--	02/13/14	--	--	--	--	--	--	--	--	--	--	--	--	0.41	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24FS	36.20	--	05/06/14	--	--	--	--	--	--	--	--	--	--	--	--	1.07	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24FS	36.02	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	1.28	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-24FS	36.10	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.58	-71	180	--	--	1.6	43	0.2	0.073	<0.25	160	
R-25AS	36.83	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.54	<1.0	<1.0	<1.0	<10	--	0.16	198	730	--	--	12	<10	0.0	0.13	4.6	270	
R-25AS	36.34	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.64	-55	690	--	--	9.1	<10	0.0	<0.050	14	320	
R-25AS (DS#6)	--	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.80	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-25AS
R-25AS	34.86	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.85	<1.0	<1.0	<1.0	<10	--	0.25	134	750	--	--	7.7	<10	0.0	<0.050	3.1	270	
R-25AS (DS#1)	--	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.91	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-25AS
R-25AS	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	0.18	39	680	--	--	7.5	140	0.0	<0.050	<0.25	200	
R-25AS	35.22	--	11/12/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-25AS	35.43	--	02/22/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.88	<1.0	<1.0	<1.0	<10	--	0.38	7	680	--	--	11	<10	0.0	<0.050	<0.25	220	
R-25AS	33.39	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	<1.0	<1.0	<1.0	<10	--	0.44	32	730	--	--	7.4	17	0.0	<0.050	<0.25	240	
R-25AS	32.12	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.68	<1.0	<1.0	<1.0	<10	--	0.68	249	750	--	--	10	36	0.0	<0.050	<0.25	240	
R-25AS	31.25	--	11/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.99	<1.0	<1.0	<1.0	15	--	1.37	45	760	--	--	13	36	0.0	<0.050	<0.25	240	
R-25AS (DS#12)	--	--	11/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.97	<1.0	<1.0	<1.0	22	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-25AS
R-25AS	34.81	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.61	37	150	--	--	10	45	0.0	<0.050	<0.25	170	
R-25AS (DS#13)	--	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-25AS
R-25AS	36.47	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.83	182	520	--	--	7.4	35	0.0	<0.050	<0.25	210	
R-25AS	36.47	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.57	<1.0	<1.0	<1.0	<10	--	2.07	-12	600	--	--	7.8	16	0.0	0.057	<0.25	210	
R-25AS (DS#7)	--	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.66	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-25AS
R-25AS	36.95	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.61	140	940	--	--	6.8	35	0.0	<0.050	<0.25	220	

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-25AM	36.81	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	22	--	0.11	61	390	--	--	8.1	31	3.2	1.3	<0.25	210	
R-25AM	35.53	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.69	-100	360	--	--	7.5	<10	0.6	<0.050	<0.25	240	
R-25AM	33.71	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	<1.0	<1.0	<1.0	<10	--	0.23	-80	370	--	--	6.1	<10	3.2	<0.050	<0.25	220	
R-25AM	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.62	<1.0	<1.0	<1.0	<10	--	0.12	-100	360	--	--	5.1	<10	4.0	0.062	<0.25	210	
R-25AM	34.50	--	11/12/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-25AM	34.80	--	02/22/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.0	<1.0	<1.0	<1.0	<10	--	0.54	-53	410	--	--	7.7	<10	5.0	0.15	0.29	230	
R-25AM	31.85	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.3	<1.0	<1.0	<1.0	<10	--	0.22	-103	390	--	--	6.5	20	1.9	<0.050	<0.25	220	
R-25AM (DS#2)	--	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-25AM
R-25AM	31.05	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<10	--	0.46	-82	360	--	--	5.7	<10	2.2	<0.050	<0.25	210	
R-25AM (DS#4)	--	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-25AM
R-25AM	30.32	--	11/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.78	<1.0	<1.0	<1.0	<10	--	0.79	-91	360	--	--	8.4	14	3.4	0.17	<0.25	200	
R-25AM	35.36	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.64	-109	320	--	--	6.0	<10	0.0	0.057	<0.25	210	
R-25AM	36.41	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.44	-100	270	--	--	4.7	<10	1.2	<0.050	0.32	220	
R-25AM (DS#8)	--	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-25AM
R-25AM	36.52	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.60	<1.0	<1.0	<1.0	<10	--	1.86	-139	330	--	--	5.9	21	2.0	<0.050	0.71	220	
R-25AM	36.98	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.52	-103	290	--	--	4.6	<10	0.0	<0.050	0.38	230	
R-25FS	37.76	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.11	-10	210	--	--	2.1	540	0.0	<0.050	<0.25	130	
R-25FS (DS#1)	--	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-25FS
R-25FS	37.47	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.38	-30	200	--	--	4.6	37	0.0	<0.050	<0.25	150	
R-25FS	35.10	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	51	200	--	--	1.2	31	0.0	<0.050	<0.25	140	
R-25FS	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.11	65	210	--	--	1.5	43	0.0	<0.050	<0.25	140	
R-25FS	34.55	--	11/12/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-25FS	35.81	--	02/22/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.17	15	200	--	--	1.6	250	0.0	0.084	<0.25	150	
R-25FS (DS#18)	--	--	02/22/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-25FS
R-25FS	33.28	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.23	-33	200	--	--	<1.0	930	0.0	0.083	<0.25	140	
R-25FS	32.20	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	10	--	0.96	29	210	--	--	1.2	420	0.0	<0.050	<0.25	140	
R-25FS	31.48	--	11/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.72	-12	200	--	--	1.5	800	0.0	<0.050	<0.25	140	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-25FS	35.83	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.69	67	180	--	--	1.6	<10	0.0	<0.050	<0.25	140	
R-25FS	37.11	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.63	96	190	--	--	1.6	16	0.0	<0.050	<0.25	140	
R-25FS	37.08	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	2.11	-14	190	--	--	2.1	110	0.2	0.038	0.66	140	
R-25FS	37.48	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.49	112	180	--	--	1.9	89	0.0	<0.050	<0.25	140	
R-25FS (DS#6)	--	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-25FS
R-26AS	36.38	--	02/06/12	--	--	--	--	--	--	--	--	--	--	--	--	0.29	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AS	37.45	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AS	35.02	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AS	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.34	-2	--	--	--	--	--	--	--	--	--	
R-26AS (DS#1)	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-26AS
R-26AS	36.25	--	11/12/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AS	37.74	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	--	0.62	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AS	35.40	--	04/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AS	34.16	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	1.17	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AS	34.02	--	11/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.78	-34	--	--	--	--	--	0.8	--	--	--	
R-26AS	35.94	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	--	0.92	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AS	36.17	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.37	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AS	35.46	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.81	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AS	36.18	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	-19	--	--	--	--	--	--	--	--	--	
R-26AM	35.92	--	02/06/12	--	--	--	--	--	--	--	--	--	--	--	--	0.24	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AM	36.68	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.72	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AM	34.48	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	--	0.36	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AM	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.79	<1.0	<1.0	<1.0	<10	--	0.32	-63	--	--	--	--	--	--	--	--	--	
R-26AM	35.02	--	11/12/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AM	36.81	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	--	0.61	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AM	33.95	--	04/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.18	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AM	33.20	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.90	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-26AM	32.93	--	11/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.70	<1.0	<1.0	<1.0	<10	--	0.48	-95	--	--	--	--	--	1.8	--	--	--	
R-26AM	35.22	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	--	0.42	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AM	35.71	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.24	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AM	35.35	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.92	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26AM	35.63	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.19	-87	--	--	--	--	--	--	--	--	--	
R-26FS	36.89	--	02/06/12	--	--	--	--	--	--	--	--	--	--	--	--	0.27	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26FS	36.94	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.61	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26FS	34.72	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	--	0.25	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26FS	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.09	-57	--	--	--	--	--	--	--	--	--	
R-26FS	34.92	--	11/12/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26FS	36.41	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	--	0.73	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26FS	34.09	--	04/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.16	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26FS	34.14	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.67	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26FS	33.30	--	11/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.75	<1.0	<1.0	<1.0	<10	--	0.62	-78	--	--	--	--	--	2.0	--	--	--	
R-26FS	35.51	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	--	0.56	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26FS	36.39	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.24	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26FS	35.36	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.85	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-26FS	36.94	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.40	-105	--	--	--	--	--	--	--	--	--	
R-27AS	37.83	--	02/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.87	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AS	37.05	--	04/25/12	--	--	--	--	--	--	--	--	--	--	--	--	0.84	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AS	35.23	--	08/07/12	--	--	--	--	--	--	--	--	--	--	--	--	0.24	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AS	35.66	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	127	250	--	--	3.9	<10	0.0	<0.050	<0.25	120	
R-27AS	35.32	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	--	0.56	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AS	33.03	--	04/30/13	--	--	--	--	--	--	--	--	--	--	--	--	0.43	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AS	32.95	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AS	31.66	--	11/04/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.89	45	240	--	--	1.9	<10	0.0	<0.050	<0.25	83	
R-27AS	35.52	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	--	0.55	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-27AS	36.98	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.27	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AS	37.43	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.46	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AS	38.02	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.33	75	170	--	--	3.7	<10	0.0	<0.050	<0.25	210	--	
R-27AS (DS#8)	--	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-27AS
R-27AM	38.31	--	02/16/12	--	--	--	--	--	--	--	--	--	--	--	0.17	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AM	37.84	--	04/25/12	--	--	--	--	--	--	--	--	--	--	--	0.48	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AM	36.36	--	08/07/12	--	--	--	--	--	--	--	--	--	--	--	0.26	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AM	36.50	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.17	57	230	--	--	3.1	<10	0.0	<0.050	<0.25	75	--	
R-27AM	36.01	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AM	34.49	--	04/30/13	--	--	--	--	--	--	--	--	--	--	--	0.37	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AM	34.42	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AM	33.50	--	11/04/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.56	4	240	--	--	1.7	<10	--	<0.050	<0.25	80	--	
R-27AM (DS#10)	--	--	11/04/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-27AM
R-27AM	35.76	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	0.49	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AM	37.20	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.28	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AM	37.95	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.65	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27AM	38.57	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.34	27	230	--	--	2.0	<10	0.0	0.055	<0.25	100	--	
R-27FS	38.46	--	02/16/12	--	--	--	--	--	--	--	--	--	--	--	0.78	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27FS	38.53	--	04/25/12	--	--	--	--	--	--	--	--	--	--	--	0.41	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27FS	36.62	--	08/07/12	--	--	--	--	--	--	--	--	--	--	--	1.00	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27FS	36.81	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.40	107	210	--	--	3.4	<10	0.0	<0.050	<0.25	140	--	
R-27FS	36.18	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	1.81	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27FS	35.52	--	04/30/13	--	--	--	--	--	--	--	--	--	--	--	0.97	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27FS	35.44	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27FS	32.62	--	11/04/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.50	109	210	--	--	<1.0	<10	0.0	<0.050	<0.25	140	--	
R-27FS	35.81	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	1.32	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27FS	37.66	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	1.38	--	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-27FS	38.10	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.71	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-27FS	38.64	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	64	190	--	--	1.7	<10	0.0	<0.050	<0.25	150	
R-28AS	35.53	--	01/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	28	--	0.50	73	420	--	--	6.8	17	3.0	1.0	<0.25	150	
R-28AS	35.61	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	59	--	0.20	-55	430	--	--	6.0	12	2.0	4.5	<0.25	150	
R-28AS	35.94	--	03/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.86	136	400	--	--	4.5	<10	0.8	<0.050	0.47	150	
R-28AS	35.51	--	04/04/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	50	220	--	--	8.8	11	1.4	0.050	<0.25	120	
R-28AS	35.44	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.23	-85	220	--	--	8.7	11	2.0	<0.050	<0.25	130	
R-28AS	34.35	--	06/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.92	-77	380	--	--	9.7	<10	2.5	1.8	<0.25	160	
R-28AS	34.34	--	07/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	18	--	0.35	-18	450	--	--	4.9	59	2.8	2.5	<0.25	140	
R-28AS	34.16	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	-68	490	--	--	6.0	19	2.2	3.0	<0.25	160	
R-28AS	34.05	--	09/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	51	--	0.40	-76	430	--	--	6.2	16	4.6	5.4	<0.25	140	
R-28AS	34.24	--	10/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	40	--	0.53	-112	460	--	--	7.8	14	4.2	2.2	<0.25	140	
R-28AS	34.08	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	100	--	0.34	-59	460	--	--	6.9	17	3.4	4.1	<0.25	150	
R-28AS	34.19	--	12/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	90	--	0.61	33	410	--	--	7.2	17	5.2	2.5	<0.25	160	
R-28AS	35.37	--	01/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.40	6	360	--	--	7.1	39	1.0	<0.050	<0.25	150	
R-28AS	36.34	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	2	300	--	--	6.8	26	1.8	0.70	<0.25	170	
R-28AS	36.14	--	03/14/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.85	162	160	--	--	6.0	<10	0.0	<0.050	0.54	85	
R-28AS	34.54	--	04/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.52	31	200	--	--	7.2	38	2.8	4.3	<0.25	130	
R-28AS	34.93	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.61	-97	270	--	--	5.9	15	2.0	0.48	<0.25	140	
R-28AS	34.12	--	06/11/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.79	113	370	--	--	5.1	<10	2.0	1.7	<0.25	180	
R-28AS	34.01	--	07/12/13	<0.50	0.94 CL	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.58	-28	370	--	--	5.0	<10	1.2	0.49	<0.50	170	
R-28AS	33.97	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.43	-106	330	--	--	5.6	<10	2.0	1.4	<0.25	170	
R-28AS	33.64	--	09/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.20	-98	290	--	--	6.4	11	2.4	2.5	<0.25	170	
R-28AS	33.80	--	10/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	2.20	-94	300	--	--	6.6	17	2.0	1.1	<0.25	170	
R-28AS	33.72	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.82	-118	200	--	--	6.6	20	1.2	1.2	<0.25	140	
R-28AS	33.74	--	12/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.83	-55	230	--	--	6.2	24	2.8	1.3	<0.25	140	
R-28AS	34.54	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.29	-110	160	--	--	9.3	57	0.0	0.20	<0.25	91	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
R-28AS	34.51	--	05/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.69	-115	190	--	--	7.8	24	0.0	0.86	<0.25	170		
R-28AS	33.88	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.87	-23	320	--	--	14	28	0.8	1.6	<0.25	280		
R-28AS	34.03	--	10/28/14	<0.50	0.67 CL	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	14	--	1.18	-111	380	--	--	19	39	0.6	2.3	<0.25	230		
R-28AM	35.57	--	01/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.61	<1.0	<1.0	<1.0	<10	--	0.40	220	400	--	--	8.1	<10	3.2	<0.050	<0.25	150		
R-28AM (DS#1)	--	--	01/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.59	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	35.75	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	69	--	0.15	-72	380	--	--	4.2	<10	2.2	<0.050	<0.25	150		
R-28AM	35.94	--	03/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.76	-55	370	--	--	4.2	<10	3.4	<0.050	<0.25	160		
R-28AM (DS#1)	--	--	03/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	35.54	--	04/04/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	25	--	0.30	-96	390	--	--	4.9	<10	2.6	<0.050	0.30	160		
R-28AM (DS#1)	--	--	04/04/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	27	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	35.44	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	11	--	0.33	-96	360	--	--	7.5	<10	2.4	<0.050	0.35	160		
R-28AM (DS#15)	--	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	16	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.36	--	06/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	22	--	0.72	-80	380	--	--	7.8	<10	5.5	<0.050	0.35	160		
R-28AM (DS#1)	--	--	06/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	21	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.36	--	07/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	31	--	0.32	-79	360	--	--	3.3	<10	3.8	<0.050	0.37	170		
R-28AM (DS#1)	--	--	07/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	27	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.13	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.18	-103	360	--	--	3.4	<10	3.6	<0.050	0.45	170		
R-28AM	34.11	--	09/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	-101	690	--	--	4.0	<10	5.6	<0.050	0.45	160		
R-28AM (DS#1)	--	--	09/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.24	--	10/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	570	--	1.22	-88	410	--	--	7.1	15	7.0	9.3	<0.25	150		
R-28AM (DS#1)	--	--	10/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	570	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.14	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	540	--	0.20	-83	430	--	--	4.0	<10	3.8	2.3	<0.25	150		
R-28AM (DS#7)	--	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	560	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.26	--	12/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	250	--	0.42	-77	390	--	--	4.2	<10	6.0	<0.050	<0.25	150		
R-28AM (DS#1)	--	--	12/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	280	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	35.44	--	01/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	11	--	0.36	-101	400	--	--	4.0	<10	3.8	<0.050	0.37	160		
R-28AM (DS#1)	--	--	01/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	13	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
R-28AM	36.42	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	930	--	0.58	-66	430	--	--	4.1	19	5.4	12	<0.25	180		
R-28AM (DS#16)	--	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	780	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	36.12	--	03/14/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	620	--	0.36	-74	360	--	--	4.4	<10	5.2	0.10	<0.25	190		
R-28AM (DS#1)	--	--	03/14/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	<1.0	<1.0	<1.0	640	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.92	--	04/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	110	--	0.38	36	380	--	--	4.7	<10	2.6	<0.050	0.66	190		
R-28AM (DS#1)	--	--	04/12/13	<0.50	0.52	<0.50	<0.50	<0.50	<0.50	0.80	<1.0	<1.0	<1.0	140	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	35.05	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	80	--	0.56	-100	350	--	--	3.7	<10	3.8	<0.050	0.60	180		
R-28AM (DS#14)	--	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	83	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.16	--	06/11/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	800	--	1.11	-85	440	--	--	3.6	18	3.2	<0.25	<0.25	170		
R-28AM (DS#1)	--	--	06/11/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	710	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.02	--	07/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	710	--	0.64	-76	390	--	--	4.2	12	1.6	<0.10	<0.50	170		
R-28AM (DS#1)	--	--	07/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	740	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.04	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	620	--	0.49	-106	380	--	--	4.1	<10	4.2	<0.050	<0.25	170		
R-28AM (DS#11)	--	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	570	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	33.85	--	09/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	73	--	1.17	-98	370	--	--	3.7	<10	3.4	<0.050	0.46	170		
R-28AM (DS#1)	--	--	09/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	0.57	<1.0	<1.0	<1.0	140	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	33.85	--	10/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.70	-90	370	--	--	4.2	<10	4.4	<0.050	0.62	170		
R-28AM (DS#1)	--	--	10/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.24	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.76	-91	370	--	--	3.6	<10	0.0	<0.050	0.60	170		
R-28AM (DS#15)	--	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	33.90	--	12/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	210	--	0.79	-74	370	--	--	4.3	<10	1.6	0.16	<0.25	180		
R-28AM (DS#1)	--	--	12/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	180	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.72	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	170	--	0.45	-106	160	--	--	19	<10	0.0	0.086	1.6	250		
R-28AM (DS#18)	--	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	220	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.58	--	05/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.64	<1.0	<1.0	<1.0	870	--	0.68	-72	180	--	--	5.7	16	0.0	4.2	0.84	130		
R-28AM (DS#2)	--	--	05/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.61	<1.0	<1.0	<1.0	830	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.01	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.93	<1.0	<1.0	<1.0	920	--	0.97	-119	350	--	--	5.7	17	4.2	5.4	<0.25	160		

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-28AM (DS#2)	--	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.90	<1.0	<1.0	<1.0	970	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28AM	34.09	--	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.59	<1.0	<1.0	<1.0	82	--	1.21	-105	350	--	--	4.1	15	3.6	8.5	<0.25	160	
R-28AM (DS#1)	--	--	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.62	<1.0	<1.0	<1.0	89	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28AM
R-28FS	35.30	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.08	-77	220	--	--	1.7	<10	0.5	<0.050	<0.25	110	
R-28FS	35.40	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.02	-59	220	--	--	3.9	<10	0.5	<0.050	<0.25	110	
R-28FS	34.10	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.13	-103	210	--	--	1.5	<10	0.5	<0.050	<0.25	110	
R-28FS	34.02	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	14	--	0.12	-112	230	--	--	2.0	<10	0.0	<0.050	<0.25	100	
R-28FS	36.28	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	1.0	<0.50	<1.0	<1.0	<1.0	<10	--	0.53	-88	230	--	--	2.2	<10	1.2	<0.050	<0.25	100	
R-28FS	35.05	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	<0.50	<1.0	<1.0	<1.0	<10	--	0.27	-72	220	--	--	2.3	<10	0.0	<0.050	<0.25	100	
R-28FS (DS#15)	--	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28FS
R-28FS	33.76	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	-111	220	--	--	2.0	69	0.0	<0.050	<0.25	98	
R-28FS	33.98	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.83	-105	230	--	--	1.6	<10	1.2	<0.050	<0.25	100	
R-28FS	34.16	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.09	-81	200	--	--	3.2	<10	0.0	<0.050	0.33	48	
R-28FS	34.51	--	05/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	-53	210	--	--	2.5	<10	0.0	<0.050	<0.25	100	
R-28FS	33.76	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.45	-123	200	--	--	2.9	<10	1.2	<0.050	<0.25	100	
R-28FS (DS#1)	--	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-28FS
R-28FS	34.06	--	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.91	-62	210	--	--	2.7	11	0.6	<0.050	<0.25	100	
R-29AS	29.60	--	02/06/12	--	--	--	--	--	--	--	--	--	--	--	--	1.00	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AS	29.72	--	04/23/12	--	--	--	--	--	--	--	--	--	--	--	--	0.23	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AS	29.03	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	--	0.51	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AS	29.34	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.17	200	--	--	--	--	--	--	--	--	--	
R-29AS (DS#21)	--	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-29AS
R-29AS	29.58	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	--	0.96	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AS	29.37	--	04/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.28	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AS	28.96	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.90	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AS	29.62	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	203	--	--	--	--	--	--	--	--	--	
R-29AS	29.72	--	02/11/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-29AS	29.25	--	05/06/14	--	--	--	--	--	--	--	--	--	--	--	0.56	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AS	28.81	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.43	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AS	28.83	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.29	88	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AS (DS#4)	--	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-29AS
R-29AM	29.30	--	02/06/12	--	--	--	--	--	--	--	--	--	--	--	2.00	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AM	29.34	--	04/23/12	--	--	--	--	--	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AM	28.75	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	0.23	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AM	28.93	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.15	-20	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AM	29.26	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	0.81	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AM	29.02	--	04/29/13	--	--	--	--	--	--	--	--	--	--	--	0.27	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AM	28.74	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	0.95	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AM	29.31	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.66	-11	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AM	29.26	--	02/11/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AM	28.91	--	05/06/14	--	--	--	--	--	--	--	--	--	--	--	0.43	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AM	28.57	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.62	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29AM	28.61	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	1.28	-74	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29FS	30.32	--	02/06/12	--	--	--	--	--	--	--	--	--	--	--	1.30	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29FS	30.40	--	04/23/12	--	--	--	--	--	--	--	--	--	--	--	0.52	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29FS	29.73	--	08/06/12	--	--	--	--	--	--	--	--	--	--	--	0.39	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29FS	29.88	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.22	52	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29FS	31.04	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	0.76	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29FS	30.05	--	04/29/13	--	--	--	--	--	--	--	--	--	--	--	0.91	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29FS	29.68	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	1.02	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29FS	29.85	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.77	135	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29FS (DS#2)	--	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-29FS
R-29FS	30.21	--	02/11/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29FS	29.96	--	05/06/14	--	--	--	--	--	--	--	--	--	--	--	1.18	--	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-29FS	29.42	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.79	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-29FS	29.57	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.22	-30	--	--	--	--	--	--	--	--	--	
R-30AS	38.45	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.91	<1.0	<1.0	<1.0	<10	--	0.80	65	430	--	--	9.6	53	2.8	0.24	<0.25	130	
R-30AS	37.98	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.43	-66	360	--	--	7.5	96	2.0	2.2	<0.25	180	
R-30AS	37.02	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.49	-14	310	--	--	18	96	3.8	0.24	<0.25	180	
R-30AS (DS#2)	--	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-30AS
R-30AS	36.94	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.27	-70	350	--	--	30	110	2.0	0.089	<0.25	240	
R-30AS (DS#16)	--	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-30AS
R-30AS	36.68	--	02/27/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.58	13	320	--	--	9.1	53	2.0	1.5	<0.25	220	
R-30AS	35.79	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	-73	320	--	--	11	65	1.0	1.3	<0.25	190	
R-30AS	35.41	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.87	-69	370	--	--	5.3	130	1.6	1.2	<0.25	260	
R-30AS	35.27	--	11/05/13	--	--	--	--	--	--	--	--	--	--	--	0.85	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-30AS	36.79	--	02/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.61	-80	320	--	--	7.8	58	2.2	0.45	<0.25	270	
R-30AS	37.42	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.44	-66	280	--	--	5.9	81	0.0	0.46	<0.25	260	
R-30AS	37.81	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.65	-84	310	--	--	5.4	100	1.4	1.1	<0.25	280	
R-30AS (DS#4)	--	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-30AS
R-30AS	38.38	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.43	-67	260	--	--	4.9	150	3.2	1.1	<0.25	300	
R-30AD	38.59	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.50	72	350	--	--	7.8	19	1.2	0.81	<0.25	210	
R-30AD	38.34	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.38	55	370	--	--	6.5	<10	1.4	<0.050	<0.25	220	
R-30AD (DS#2)	--	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-30AD
R-30AD	37.46	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.31	-68	380	--	--	5.2	<10	1.8	<0.050	0.30	190	
R-30AD	37.38	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	-76	380	--	--	6.1	590	1.8	<0.050	<0.25	180	
R-30AD	37.48	--	02/27/13	<0.50	<0.50	0.95	5.1	0.68	4.2	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	-32	350	--	--	7.6	20	1.8	<0.050	<0.25	190	
R-30AD	36.61	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.42	-83	340	--	--	5.7	240	2.0	0.27	<0.25	200	
R-30AD	36.28	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.78	-78	360	--	--	5.5	<10	0.0	<0.050	<0.25	200	
R-30AD	36.42	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	-71	340	--	--	6.2	11	0.0	<0.050	<0.25	210	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-30AD (DS#11)	--	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-30AD
R-30AD	36.91	--	02/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.71	-78	290	--	--	6.7	<10	2.6	<0.050	<0.25	200	
R-30AD	37.72	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	-60	300	--	--	5.0	94	0.2	0.36	<0.25	200	
R-30AD	38.07	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.62	-78	310	--	--	5.4	26	1.0	<0.050	<0.25	200	
R-30AD	38.53	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.57	-84	280	--	--	4.7	<10	0.0	<0.050	0.30	190	
R-30FS	38.56	--	02/06/12	<0.50	<0.50	5.8	2.4	1.0	2.2	12	<1.0	<1.0	<1.0	<10	--	0.50	70	260	--	--	4.4	15	2.2	<0.050	<0.25	130	
R-30FS (DS#3)	--	--	02/06/12	<0.50	<0.50	5.3	2.2	0.94	2.1	12	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-30FS
R-30FS	38.27	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.92	-10	270	--	--	3.1	11	0.0	<0.050	<0.25	130	
R-30FS	37.15	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.18	-77	280	--	--	2.7	38	1.6	<0.050	<0.25	140	
R-30FS	37.05	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.15	-77	270	--	--	2.7	55	1.0	<0.050	<0.25	140	
R-30FS	36.81	--	02/27/13	<0.50	<0.50	2.1	7.8	0.85	5.1	<0.50	<1.0	<1.0	<1.0	<10	--	0.77	-46	280	--	--	4.2	17	2.2	<0.050	<0.25	130	
R-30FS	35.75	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.25	-81	260	--	--	1.9	97	1.0	0.67	<0.25	120	
R-30FS	34.17	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.53	-51	280	--	--	2.8	27	0.0	0.052	<0.25	140	
R-30FS	33.98	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.37	-66	310	--	--	4.3	13	0.0	<0.050	<0.25	150	
R-30FS	36.22	--	02/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.83	-75	230	--	--	3.8	14	0.9	<0.050	<0.25	140	
R-30FS	34.07	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.49	-59	250	--	--	2.5	56	0.0	<0.050	<0.25	120	
R-30FS	38.08	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.33	-126	250	--	--	3.4	160	0.4	<0.050	<0.25	130	
R-30FS	38.53	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.51	-94	230	--	--	2.6	400	0.0	<0.050	<0.25	140	
R-31AS	39.18	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	52	540	--	--	3.2	<10	0.0	<0.050	11	290	
R-31AS	39.12	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.69	61	570	--	--	9.3	<10	0.0	<0.050	7.2	330	
R-31AS	37.90	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.81	103	550	--	--	3.1	<10	0.0	<0.050	10	340	
R-31AS (DS#13)	--	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-31AS
R-31AS	38.01	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.34	72	550	--	--	3.4	<10	0.0	<0.050	11	300	
R-31AS	39.10	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.43	57	600	--	--	4.0	<10	0.0	<0.050	12	450	
R-31AS	38.31	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.73	99	530	--	--	3.3	<10	0.0	<0.050	6.2	320	
R-31AS	37.47	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.61	95	460	--	--	3.5	<10	0.0	<0.050	2.4	260	
R-31AS	37.28	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.80	98	440	--	--	3.5	<10	0.0	<0.050	4.1	260	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-31AS	38.13	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.52	58	440	--	--	4.2	<10	0.0	<0.050	6.2	260	
R-31AS	38.28	--	05/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.86	209	400	--	--	3.7	<10	0.0	<0.050	4.2	320	
R-31AS	37.72	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.21	51	410	--	--	3.3	<10	0.0	<0.050	4.7	270	
R-31AS	37.83	--	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.73	141	500	--	--	2.9	<10	0.0	<0.050	8.4	300	
R-31AS (DS#2)	--	--	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-31AS
R-31AM	38.93	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	2.12	-12	330	--	--	2.3	17	0.0	<0.050	11	150	
R-31AM	39.13	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.91	150	360	--	--	5.8	21	0.0	<0.050	11	170	
R-31AM	37.85	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	2.13	62	270	--	--	2.3	22	0.0	<0.050	6.1	140	
R-31AM	37.98	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.21	-39	280	--	--	2.0	18	0.0	<0.050	6.0	150	
R-31AM	39.23	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.17	56	310	--	--	2.1	33	0.0	<0.050	6.1	180	
R-31AM	38.32	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	3	300	--	--	1.3	27	0.0	<0.050	6.1	160	
R-31AM	37.46	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.56	25	260	--	--	1.7	16	0.0	<0.050	7.1	130	
R-31AM	37.33	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.80	50	310	--	--	1.9	<10	0.0	<0.050	8.7	160	
R-31AM	38.09	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.92	36	270	--	--	3.4	10	0.0	<0.050	6.3	150	
R-31AM	38.35	--	05/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.05	58	230	--	--	2.4	14	0.0	<0.050	6.0	150	
R-31AM	37.72	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.61	-1	220	--	--	2.8	13	0.0	<0.050	5.2	150	
R-31AM	37.86	--	10/28/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	1.10	-7	240	--	--	40	39	0.0	0.28	1.5	120	
R-31AD	39.30	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.86	62	300	--	--	1.7	<10	0.0	<0.050	7.3	140	
R-31AD	39.09	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	2.40	29	280	--	--	4.9	<10	0.0	<0.050	6.3	140	
R-31AD	37.87	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.56	102	250	--	--	1.5	<10	0.0	<0.050	5.2	140	
R-31AD	37.96	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.30	88	230	--	--	2.3	<10	0.0	<0.050	4.6	130	
R-31AD	39.26	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	0.88	<0.50	<1.0	<1.0	<1.0	<10	--	1.84	38	220	--	--	1.8	<10	0.0	<0.050	3.4	140	
R-31AD	38.34	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.09	150	220	--	--	1.6	<10	0.0	<0.050	3.6	130	
R-31AD	37.45	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.68	64	240	--	--	1.7	<10	0.0	<0.050	4.0	130	
R-31AD	37.19	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.48	78	230	--	--	6.5	<10	0.0	<0.050	3.3	120	
R-31AD	38.12	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.99	75	200	--	--	4.4	<10	0.0	<0.050	3.8	130	
R-31AD	38.20	--	05/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.74	191	190	--	--	2.5	<10	0.0	<0.050	3.9	130	

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Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-31AD (DS#1)	--	--	05/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-31AD
R-31AD	37.63	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.98	30	210	--	--	3.2	<10	0.0	<0.050	4.3	130	
R-31AD	37.76	--	10/28/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	1.32	140	180	--	--	28	53	0.0	0.28	1.2	83	
R-31FS	40.68	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.13	-9	240	--	--	<1.0	25	1.2	0.28	<0.25	150	
R-31FS	40.98	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.67	-40	260	--	--	3.1	<10	0.5	<0.050	<0.25	150	
R-31FS	39.73	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	-78	240	--	--	<1.0	17	1.5	0.22	<0.25	150	
R-31FS	39.98	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.10	-81	270	--	--	1.5	12	0.0	0.25	<0.25	150	
R-31FS	40.33	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	-22	270	--	--	1.2	18	1.0	0.97	<0.25	170	
R-31FS	39.68	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.31	18	260	--	--	1.0	<10	0.0	0.057	<0.25	160	
R-31FS	38.85	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.64	-52	260	--	--	1.3	<10	0.8	0.062	<0.25	150	
R-31FS	36.68	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.79	-14	270	--	--	1.7	<10	0.0	<0.050	<0.25	160	
R-31FS	39.77	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.31	-79	250	--	--	2.0	31	0.0	0.63	<0.25	150	
R-31FS (DS#17)	--	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-31FS
R-31FS	40.06	--	05/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.13	-14	240	--	--	1.3	18	0.0	0.48	<0.25	150	
R-31FS	39.70	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.59	-83	250	--	--	2.5	20	1.0	0.17	<0.25	150	
R-31FS	39.73	--	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.04	-22	240	--	--	1.1	<10	0.2	<0.050	<0.25	160	
R-32AS	32.19	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	<1.0	<1.0	<1.0	<10	--	0.22	106	--	--	--	--	--	--	--	--	--	
R-32AS	32.49	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.63	83	--	--	--	--	--	--	--	--	--	
R-32AS	32.44	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.64	98	--	--	--	--	--	--	--	--	--	
R-32AS	31.19	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.11	29	--	--	--	--	--	--	--	--	--	
R-32AS	30.89	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.96	-149	--	--	--	--	--	--	--	--	--	
R-32AS	29.91	--	04/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	<0.005	0.28	-72	--	--	--	--	--	--	--	--	--	
R-32AS	--	--	08/06/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-32AS	29.76	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	-7	--	--	--	--	--	--	--	--	--	
R-32AS	32.27	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.27	99	--	--	--	--	--	--	--	--	--	
R-32AS	37.02	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.10	207	--	--	--	--	--	--	--	--	--	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
R-32AS	39.23	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.57	191	--	--	--	--	--	--	--	--	--	--	
R-32AS	41.18	--	11/04/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.53	181	--	--	--	--	--	--	--	--	--	--	
R-32AD	32.11	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	52	--	--	--	--	--	--	--	--	--	--	
R-32AD	32.61	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.55	<1.0	<1.0	<1.0	<10	--	0.40	65	--	--	--	--	--	--	--	--	--	--	
R-32AD	32.15	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.57	<1.0	<1.0	<1.0	<10	--	0.13	86	--	--	--	--	--	--	--	--	--	--	
R-32AD	31.15	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.08	48	--	--	--	--	--	--	--	--	--	--	
R-32AD	30.80	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	69	--	--	--	--	--	--	--	--	--	--	
R-32AD	29.13	--	04/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	<0.005	0.18	27	390	--	--	4.3	<10	--	<0.050	<0.25	270		
R-32AD (DS#1)	--	--	04/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-32AD
R-32AD	28.21	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.65	<1.0	<1.0	<1.0	<10	--	0.46	118	--	--	--	--	--	--	--	--	--	--	
R-32AD	27.63	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	69	--	--	--	--	--	--	--	--	--	--	
R-32AD (DS#4)	--	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-32AD
R-32AD	32.26	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.89	160	--	--	--	--	--	--	--	--	--	--	
R-32AD	36.94	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	153	--	--	--	--	--	--	--	--	--	--	
R-32AD	39.23	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.23	86	--	--	--	--	--	--	--	--	--	--	
R-32AD	41.13	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.45	205	--	--	--	--	--	--	--	--	--	--	
R-33AS	33.02	--	02/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.15	132	380	--	--	4.5	<10	1.8	1.8	<0.25	270		
R-33AS	33.42	--	05/04/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	11	--	0.72	220	--	--	--	--	--	--	--	--	--	--	
R-33AS (DS#18)	--	--	05/04/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	11	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-33AS
R-33AS	33.23	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.14	-57	--	--	--	--	--	--	--	--	--	--	
R-33AS	31.81	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.05	119	340	--	--	4.2	<10	0.0	4.1	<0.25	240		
R-33AS	31.69	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.67	-16	--	--	--	--	--	--	--	--	--	--	
R-33AS	--	--	05/02/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-33AS	--	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	-3	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Gauge
R-33AS	--	--	10/28/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-33AS	--	33.94	02/06/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
R-33AS	36.91	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.63	219	--	--	--	--	--	--	--	--	--	--	
R-33AS	39.33	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.76	74	--	--	--	--	--	--	--	--	--	--	
R-33AS	41.23	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.07	261	310	--	--	8.4	<10	0.0	<0.050	3.5	400		
R-33AD	32.75	--	02/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.53	<1.0	<1.0	<1.0	<10	--	0.15	105	350	--	--	4.4	<10	0.0	<0.050	<0.25	280		
R-33AD	33.31	--	05/04/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.92	107	--	--	--	--	--	--	--	--	--		
R-33AD	32.30	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.10	42	--	--	--	--	--	--	--	--	--		
R-33AD	31.34	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.05	85	380	--	--	5.1	<10	0.0	<0.050	<0.25	250		
R-33AD	31.50	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.97	89	--	--	--	--	--	--	--	--	--		
R-33AD	29.40	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	<0.005	0.26	48	410	--	--	4.5	<10	0.0	<0.050	<0.25	270		
R-33AD	28.36	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.24	38	--	--	--	--	--	--	--	--	--		
R-33AD	27.76	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.90	110	390	--	--	4.1	<10	0.0	<0.050	<0.25	260		
R-33AD	31.30	--	02/06/14	<0.50	<0.50	<0.50	0.94	<0.50	1.8	<0.50	<1.0	<1.0	<1.0	<10	--	0.66	78	--	--	--	--	--	--	--	--	--		
R-33AD	36.94	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.64	67	--	--	--	--	--	--	--	--	--		
R-33AD	39.23	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.94	16	--	--	--	--	--	--	--	--	--		
R-33AD	41.15	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.98	64	320	--	--	4.6	<10	0.0	<0.050	<0.25	270		
R-34AS	33.83	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.35	115	--	--	--	--	--	--	--	--	--		
R-34AS	33.71	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.70	86	--	--	--	--	--	--	--	--	--		
R-34AS	33.61	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	142	--	--	--	--	--	--	--	--	--		
R-34AS (DS#9)	--	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-34AS	
R-34AS	32.55	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	134	--	--	--	--	--	--	--	--	--		
R-34AS	32.43	--	02/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.48	246	--	--	--	--	--	--	--	--	--		
R-34AS	31.67	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.40	218	--	--	--	--	--	--	--	--	--		
R-34AS	30.60	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.26	182	--	--	--	--	--	--	--	--	--		
R-34AS	30.39	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.12	145	--	--	--	--	--	--	--	--	--		
R-34AS	31.96	--	02/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.03	101	--	--	--	--	--	--	--	--	--		
R-34AS (DS#6)	--	--	02/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-34AS	
R-34AS	37.34	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	164	--	--	--	--	--	--	--	--	--		

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-34AS	39.43	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.59	262	--	--	--	--	--	--	--	--	--	
R-34AS	41.43	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.48	152	--	--	--	--	--	--	--	--	--	
R-34AD	33.36	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.15	71	--	--	--	--	--	--	--	--	--	
R-34AD	33.47	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.58	<1.0	<1.0	<1.0	<10	--	0.80	90	--	--	--	--	--	--	--	--	--	
R-34AD	33.31	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.14	134	--	--	--	--	--	--	--	--	--	
R-34AD	32.26	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.10	125	--	--	--	--	--	--	--	--	--	
R-34AD	32.21	--	02/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.79	<1.0	<1.0	<1.0	<10	--	0.21	115	--	--	--	--	--	--	--	--	--	
R-34AD	30.88	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	<1.0	<1.0	<1.0	<10	--	0.53	181	--	--	--	--	--	--	--	--	--	
R-34AD	29.91	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.34	185	--	--	--	--	--	--	--	--	--	
R-34AD (DS#14)	--	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-34AD
R-34AD	29.31	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	129	--	--	--	--	--	--	--	--	--	
R-34AD	31.88	--	02/06/14	<0.50	<0.50	<0.50	1.1	<0.50	2.7	<0.50	<1.0	<1.0	<1.0	<10	--	0.66	110	--	--	--	--	--	--	--	--	--	
R-34AD	36.74	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.35	173	--	--	--	--	--	--	--	--	--	
R-34AD	39.44	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.36	198	--	--	--	--	--	--	--	--	--	
R-34AD	41.43	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	171	--	--	--	--	--	--	--	--	--	
R-35AS	34.47	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.54	236	370	--	--	4.7	<10	0.8	<0.050	<0.25	260	
R-35AS	33.70	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.52	124	--	--	--	--	--	--	--	--	--	
R-35AS	33.92	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.45	133	--	--	--	--	--	--	--	--	--	
R-35AS	32.78	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.31	170	360	--	--	4.6	<10	0.0	<0.050	6.3	300	
R-35AS	32.40	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.71	234	--	--	--	--	--	--	--	--	--	
R-35AS	31.30	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.68	<1.0	<1.0	<1.0	<10	--	0.39	-94	--	--	--	--	--	--	--	--	--	
R-35AS	30.83	--	08/06/13	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-35AS	30.82	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.02	--	--	--	--	--	12	--	1.3	<0.25	430	Insufficient H2O for complete MNA Sampling
R-35AS	31.66	--	02/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.46	52	--	--	--	--	--	--	--	--	--	
R-35AS	37.34	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	141	--	--	--	--	--	--	--	--	--	
R-35AS	39.33	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.44	224	--	--	--	--	--	--	--	--	--	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-35AS	41.43	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	175	270	--	--	4.6	<10	0.0	<0.050	19	630	
R-35AD	34.36	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.15	162	370	--	--	4.9	<10	0.0	<0.050	<0.25	270	
R-35AD	33.68	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.69	110	--	--	--	--	--	--	--	--	--	
R-35AD	33.72	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.14	95	--	--	--	--	--	--	--	--	--	
R-35AD	32.66	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	129	380	--	--	4.3	<10	0.0	<0.050	<0.25	250	
R-35AD	32.26	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.58	121	--	--	--	--	--	--	--	--	--	
R-35AD	31.01	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.23	108	--	--	--	--	--	--	--	--	--	
R-35AD	30.18	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.59	<1.0	<1.0	<1.0	<10	--	0.41	144	--	--	--	--	--	--	--	--	--	
R-35AD	29.57	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.63	112	350	--	--	3.8	<10	0.0	<0.050	<0.25	270	
R-35AD	31.75	--	02/06/14	<0.50	<0.50	<0.50	1.0	<0.50	2.4	<0.50	<1.0	<1.0	<1.0	<10	--	0.77	63	--	--	--	--	--	--	--	--	--	
R-35AD	37.28	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.54	136	--	--	--	--	--	--	--	--	--	
R-35AD	39.51	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.26	112	--	--	--	--	--	--	--	--	--	
R-35AD	41.42	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.74	172	350	--	--	4.2	<10	0.0	<0.050	<0.25	270	
R-36AS	36.04	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.17	81	--	--	--	--	--	0.0	--	--	--	
R-36AS	36.06	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.86	125	--	--	--	--	--	--	--	--	--	
R-36AS	36.09	--	08/10/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.54	93	--	--	--	--	--	--	--	--	--	
R-36AS	35.23	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	140	410	--	--	6.0	<10	0.0	<0.050	<0.25	250	
R-36AS	34.75	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.66	214	--	--	--	--	--	--	--	--	--	
R-36AS	--	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample Well Dry
R-36AS	--	23.51	08/08/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-36AS	--	--	10/30/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-36AS	--	--	02/06/14	--	--	--	--	--	--	--	--	--	--	--	--	2.72	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-36AS	38.28	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.67	133	--	--	--	--	--	--	--	--	--	
R-36AS	39.99	--	08/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	124	--	--	--	--	--	--	--	--	--	
R-36AS	42.05	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.24	198	300	--	--	4.9	<10	0.0	<0.050	8.5	530	
R-36AD	36.15	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.17	81	--	--	--	--	--	--	--	--	--	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-36AD	36.17	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.73	112	--	--	--	--	--	--	--	--	--	
R-36AD	36.31	--	08/10/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.13	66	--	--	--	--	--	--	--	--	--	
R-36AD	35.36	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	126	--	--	--	--	--	--	--	--	--	
R-36AD	34.91	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	184	--	--	--	--	--	--	--	--	--	
R-36AD	34.18	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.75	<1.0	<1.0	<1.0	<10	--	0.28	122	--	--	--	--	--	--	--	--	--	
R-36AD	33.45	--	08/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.43	135	--	--	--	--	--	--	--	--	--	
R-36AD	32.96	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.58	132	--	--	--	--	--	--	--	--	--	
R-36AD	33.71	--	02/06/14	<0.50	<0.50	<0.50	0.88	<0.50	1.9	<0.50	<1.0	<1.0	<1.0	<10	--	0.53	111	--	--	--	--	--	--	--	--	--	
R-36AD	38.26	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.59	109	--	--	--	--	--	--	--	--	--	
R-36AD	40.13	--	08/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.76	123	--	--	--	--	--	--	--	--	--	
R-36AD	42.05	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	208	--	--	--	--	--	--	--	--	--	
R-37AS	35.74	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.14	144	--	--	--	--	--	0.0	--	--	--	
R-37AS	35.68	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.68	132	--	--	--	--	--	--	--	--	--	
R-37AS	35.87	--	08/10/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	94	--	--	--	--	--	--	--	--	--	
R-37AS	34.78	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	146	380	--	--	5.5	<10	0.0	<0.050	1.5	260	
R-37AS	34.31	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.48	179	--	--	--	--	--	--	--	--	--	
R-37AS	33.59	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.39	98	--	--	--	--	--	--	--	--	--	
R-37AS	32.93	--	08/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.87	179	--	--	--	--	--	--	--	--	--	
R-37AS	32.28	--	10/28/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample	
R-37AS	33.02	--	02/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.82	92	--	--	--	--	--	--	--	--	--	
R-37AS	38.06	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.64	132	--	--	--	--	--	--	--	--	--	
R-37AS	39.96	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.35	63	--	--	--	--	--	--	--	--	--	
R-37AS	41.97	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.53	185	340	--	--	5.7	<10	0.0	<0.050	3.5	320	
R-37AD	35.64	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.14	154	--	--	--	--	--	--	--	--	--	
R-37AD	35.64	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.61	104	--	--	--	--	--	--	--	--	--	
R-37AD	35.78	--	08/10/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.83	<1.0	<1.0	<1.0	<10	--	0.12	66	--	--	--	--	--	--	--	--	--	

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-37AD	34.71	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.16	147	--	--	--	--	--	--	--	--	--	--
R-37AD	34.26	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.45	123	--	--	--	--	--	--	--	--	--	--
R-37AD	33.51	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	43	--	--	--	--	--	--	--	--	--	--
R-37AD	32.73	--	08/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.46	96	--	--	--	--	--	--	--	--	--	--
R-37AD (DS#16)	--	--	08/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-37AD
R-37AD	32.24	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.80	74	--	--	--	--	--	--	--	--	--	--
R-37AD	33.08	--	02/06/14	<0.50	<0.50	<0.50	1.2	<0.50	2.4	<0.50	<1.0	<1.0	<1.0	<10	--	0.45	74	--	--	--	--	--	--	--	--	--	--
R-37AD	38.02	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.76	86	--	--	--	--	--	--	--	--	--	--
R-37AD	39.95	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.37	63	--	--	--	--	--	--	--	--	--	--
R-37AD	42.00	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.61	183	--	--	--	--	--	--	--	--	--	--
R-38AS	32.94	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.31	158	370	--	--	5.4	<10	0.0	<0.050	<0.25	310	--
R-38AS	32.56	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.98	180	370	--	--	5.2	<10	0.0	<0.050	0.46	280	--
R-38AS	33.36	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.40	68	320	--	--	4.2	<10	0.0	<0.050	<0.25	320	--
R-38AS	32.15	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.35	213	320	--	--	4.3	<10	0.0	<0.050	<0.25	290	--
R-38AS	31.31	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.50	251	310	--	--	5.6	<10	--	<0.050	<0.25	350	--
R-38AS	30.54	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	<0.005	1.72	--	--	--	--	--	--	--	--	--	--	Insufficient H2O for MNA Sampling
R-38AS	--	32.32	08/06/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-38AS	--	32.34	10/29/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-38AS	--	32.33	02/03/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-38AS	36.86	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	66	290	--	--	4.6	<10	0.0	<0.050	<0.25	290	--
R-38AS	39.25	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.50	197	330	--	--	8.1	<10	0.0	<0.050	<0.25	300	--
R-38AS (DS#16)	--	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-38AS
R-38AS	41.14	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	213	290	--	--	4.5	<10	0.0	<0.050	<0.25	340	--
R-38AM	32.72	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.16	159	330	--	--	4.4	<10	0.0	<0.050	<0.25	270	--
R-38AM (DS#7)	--	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-38AM
R-38AM	32.39	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	<1.0	<1.0	<1.0	<10	--	0.68	159	330	--	--	5.6	<10	0.0	<0.050	<0.25	290	--

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-38AM	33.38	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.24	58	310	--	--	4.3	<10	0.0	<0.050	<0.25	300	
R-38AM (DS#7)	--	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-38AM
R-38AM	32.06	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.21	149	320	--	--	4.6	<10	0.0	<0.050	<0.25	260	
R-38AM	31.02	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.37	123	320	--	--	4.9	<10	0.0	<0.050	<0.25	270	
R-38AM	29.50	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	87	320	--	--	5.3	<10	0.0	<0.050	<0.25	270	
R-38AM	28.38	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.45	182	290	--	--	7.1	<10	0.0	<0.050	<0.25	270	
R-38AM	27.58	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.06	100	330	--	--	4.8	<10	0.0	<0.050	<0.25	280	
R-38AM	29.96	--	02/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.75	<1.0	<1.0	<1.0	<10	--	0.70	175	300	--	--	5.9	16	0.0	<0.050	<0.25	280	
R-38AM (DS#3)	--	--	02/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.75	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-38AM
R-38AM	36.83	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.82	<1.0	<1.0	<1.0	<10	--	0.57	86	330	--	--	4.7	<10	0.0	<0.050	<0.25	270	
R-38AM	39.26	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.73	<1.0	<1.0	<1.0	<10	--	0.21	53	340	--	--	10	22	0.0	0.060	<0.25	280	
R-38AM	41.08	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.56	<1.0	<1.0	<1.0	<10	--	0.29	77	310	--	--	5.1	<10	0.0	<0.050	<0.25	280	
R-38AD	32.60	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.15	182	300	--	--	4.5	<10	0.0	<0.050	0.48	240	
R-38AD	32.25	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.58	170	320	--	--	6.3	<10	0.0	<0.050	<0.25	280	
R-38AD	33.36	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	48	320	--	--	4.7	<10	0.0	<0.050	<0.25	310	
R-38AD	32.06	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	194	320	--	--	5.0	<10	0.2	<0.050	<0.25	270	
R-38AD (DS#10)	--	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-38AD
R-38AD	30.85	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	143	330	--	--	5.0	<10	0.0	<0.050	<0.25	560	
R-38AD	29.35	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	72	340	--	--	5.1	<10	0.0	<0.050	<0.25	280	
R-38AD	28.29	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<10	--	0.28	126	330	--	--	7.7	<10	0.0	<0.050	<0.25	270	
R-38AD	27.45	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.92	89	340	--	--	5.2	<10	0.0	<0.050	<0.25	280	
R-38AD	29.82	--	02/03/14	<0.50	<0.50	<0.50	1.3	<0.50	4.3	<0.50	<1.0	<1.0	<1.0	<10	--	5.36	144	270	--	--	5.6	<10	0.0	<0.050	<0.25	510	
R-38AD	36.77	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.38	29	300	--	--	8.4	<10	0.0	<0.050	<0.25	260	
R-38AD	39.23	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.07	26	290	--	--	5.1	<10	0.0	<0.050	<0.25	270	
R-38AD	41.10	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.30	11	290	--	--	5.0	<10	0.0	<0.050	<0.25	270	
R-39AS	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/IWG
R-39AS	--	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/IWG

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-39AS	--	--	08/09/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/IWG
R-39AS	--	--	11/07/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-39AS	--	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/ Insufficient H2O to Gauge
R-39AS	--	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/ Insufficient H2O to Gauge
R-39AS	--	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/ Insufficient H2O to Gauge
R-39AS	--	--	10/31/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-39AS	--	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	--	1.00	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AS	--	25.16	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/Well Dry
R-39AS	--	25.18	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Gauged Only/Well Dry
R-39AS	41.57	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.59	4	--	--	--	--	--	--	--	--	--	
R-39AM	35.52	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	0.18	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AM	35.34	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.28	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AM	35.34	--	08/09/12	--	--	--	--	--	--	--	--	--	--	--	--	0.26	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AM	34.14	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.73	<1.0	<1.0	<1.0	<10	--	0.71	90	--	--	--	--	--	--	--	--	--	
R-39AM	33.12	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	--	0.62	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AM	32.56	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	--	0.48	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AM	31.71	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.97	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AM	31.11	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.07	-38	--	--	--	--	--	--	--	--	--	
R-39AM	32.77	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	--	0.28	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AM	37.42	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.46	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AM	39.70	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	1.39	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AM	41.51	--	11/04/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.50	-33	--	--	--	--	--	--	--	--	--	
R-39AD	35.38	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	0.14	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AD	35.25	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.24	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-39AD	35.24	--	08/09/12	--	--	--	--	--	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AD	34.07	--	11/07/12	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.51	120	--	--	--	--	--	--	--	--	--	
R-39AD (DS#20)	--	--	11/07/12	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-39AD
R-39AD	32.84	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	0.72	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AD	32.45	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	0.53	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AD	31.56	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	1.00	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AD	30.93	--	10/31/13	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.80	-15	--	--	--	--	--	--	--	--	--	
R-39AD (DS#5)	--	--	10/31/13	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-39AD
R-39AD	32.83	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AD	37.35	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.32	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AD	39.54	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	1.21	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-39AD	41.59	--	11/04/14	<1.0	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<100	--	0.39	-26	--	--	--	--	--	--	--	--	--	
R-40AS	34.88	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.2	<1.0	<1.0	<1.0	<1.0	--	0.70	123	390	--	--	11	<10	0.0	<0.050	5.1	350	
R-40AS	34.33	--	04/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	<1.0	<1.0	<1.0	<1.0	--	0.41	9	400	--	--	7.1	<10	0.0	<0.050	7.9	350	
R-40AS	34.38	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.8	<1.0	<1.0	<1.0	<1.0	--	0.23	46	360	--	--	4.9	<10	0.0	<0.050	11	470	
R-40AS	33.22	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.5	<1.0	<1.0	<1.0	<1.0	--	0.20	102	360	--	--	5.4	<10	0.0	0.063	5.3	440	
R-40AS	31.84	--	02/18/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.3	<1.0	<1.0	<1.0	<1.0	--	0.22	153	410	--	--	5.2	<10	0.0	<0.050	3.0	470	
R-40AS	30.90	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.0	<1.0	<1.0	<1.0	<1.0	--	0.41	109	410	--	--	4.5	<10	0.0	<0.050	2.2	460	
R-40AS	29.59	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.79	122	460	--	--	4.5	<10	0.0	<0.050	0.90	470	
R-40AS	28.64	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	1.02	67	440	--	--	5.3	<10	0.0	<0.050	<0.25	400	
R-40AS	31.74	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.14	118	320	--	--	5.5	<10	0.0	<0.050	<0.25	320	
R-40AS (DS#11)	--	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.71	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-40AS
R-40AS	36.86	--	05/14/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	1.05	193	320	--	--	4.4	10	0.0	<0.050	<0.25	280	
R-40AS	39.17	--	08/01/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.7	<1.0	<1.0	<1.0	<1.0	--	1.79	74	330	--	--	8.1	18	0.0	<0.050	<0.25	300	
R-40AS	40.95	--	11/03/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	1.2	<2.0	<2.0	<2.0	<20	--	0.41	-6	240	--	--	17	16	0.0	<0.050	2.0	250	
R-40AM	34.94	--	02/07/12	<0.50	<0.50	0.50	<0.50	<0.50	<0.50	8.6	<1.0	<1.0	<1.0	<1.0	--	0.50	112	390	--	--	19	13	0.0	0.12	<0.25	340	
R-40AM	34.38	--	04/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	<1.0	<1.0	<1.0	<1.0	--	0.43	2	320	--	--	8.9	<10	0.0	<0.050	7.5	460	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-40AM	34.25	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.75	<1.0	<1.0	<1.0	<10	--	0.24	-38	340	--	--	5.5	<10	1.0	<0.050	7.3	470	
R-40AM	33.22	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.54	<1.0	<1.0	<1.0	<10	--	0.25	-56	340	--	--	7.8	<10	1.2	<0.050	14	460	
R-40AM	31.87	--	02/18/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.30	-14	310	--	--	6.7	<10	1.0	<0.050	11	390	
R-40AM	30.92	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	-51	160	--	--	16	18	1.8	0.42	<0.25	120	
R-40AM	29.60	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.86	-44	290	--	--	9.8	<10	1.2	<0.050	<0.25	220	
R-40AM	28.76	--	10/30/13	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.73	-33	210	--	--	20	<10	0.0	0.23	1.4	160	
R-40AM	31.69	--	02/12/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.24	-88	60	--	--	32	11	0.4	0.36	<0.25	24	
R-40AM	36.78	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.57	-95	67	--	--	39	<10	0.0	0.43	<0.25	29	
R-40AM	39.01	--	08/01/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	1.66	-118	98	--	--	46	<10	0.0	0.61	<0.25	52	
R-40AM	40.94	--	11/03/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.35	-102	47	--	--	44	<10	0.0	0.27	1.7	31	
R-40AD	35.00	--	02/07/12	<0.50	<0.50	0.83	<0.50	<0.50	<0.50	1.0	<1.0	<1.0	<1.0	<10	--	0.50	125	340	--	--	7.8	<10	0.0	<0.050	<0.25	310	
R-40AD	34.31	--	04/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.10	7	350	--	--	5.5	<10	0.2	<0.050	<0.25	310	
R-40AD	34.35	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	-15	340	--	--	4.1	<10	1.0	<0.050	<0.25	340	
R-40AD	33.16	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.18	-20	360	--	--	4.7	<10	0.6	<0.050	<0.25	290	
R-40AD	31.91	--	02/18/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	30	320	--	--	4.2	<10	0.2	<0.050	0.29	300	
R-40AD	30.91	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	6	350	--	--	4.3	<10	0.6	<0.050	<0.25	290	
R-40AD	29.59	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.98	145	350	--	--	4.7	<10	0.0	<0.050	<0.25	290	
R-40AD (DS#2)	--	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-40AD
R-40AD	28.68	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.66	44	350	--	--	5.2	<10	0.0	<0.050	<0.25	290	
R-40AD	31.83	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.13	27	280	--	--	5.7	<10	0.0	<0.050	<0.25	290	
R-40AD	36.86	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.97	36	250	--	--	4.5	<10	0.4	0.050	<0.25	270	
R-40AD	39.20	--	08/01/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	2.04	-24	250	--	--	6.8	<10	0.0	<0.050	<0.25	270	
R-40AD	40.93	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.27	-26	240	--	--	4.7	<10	0.0	<0.050	<0.25	240	
R-41AS	42.87	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	159	330	--	--	1.9	<10	0.0	<0.050	0.96	240	
R-41AS (DS#9)	--	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-41AS
R-41AS	42.68	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	21	310	--	--	2.0	<10	0.0	0.067	0.96	250	
R-41AS	42.48	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	80	320	--	--	1.9	<10	0.0	<0.050	1.1	250	

Table 4

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Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-41AS	41.90	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.34	89	340	--	--	2.1	<10	0.0	<0.050	1.7	250	
R-41AS	41.72	--	02/18/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.53	142	330	--	--	2.3	<10	0.0	<0.050	2.0	280	
R-41AS (DS#10)	--	--	02/18/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-41AS
R-41AS	41.61	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.26	51	340	--	--	1.6	<10	0.0	<0.050	1.7	270	
R-41AS	41.36	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	49	330	--	--	1.9	<10	0.0	<0.050	2.2	280	
R-41AS	40.92	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.73	145	350	--	--	2.0	<10	0.0	<0.050	2.3	280	
R-41AS	40.64	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	191	290	--	--	3.3	<10	0.0	<0.050	2.6	280	
R-41AS	41.25	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.36	182	300	--	--	1.9	<10	0.0	<0.050	2.2	280	
R-41AS	42.02	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	19	300	--	--	2.4	<10	0.0	0.057	2.1	280	
R-41AS	42.35	--	11/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.69	81	300	--	--	3.7	<10	0.0	<0.050	1.9	290	
R-41AD	42.77	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.48	167	330	--	--	3.4	<10	0.0	<0.050	2.2	280	
R-41AD	42.73	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.25	-6	330	--	--	2.6	<10	0.8	<0.050	2.3	280	
R-41AD	42.32	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	48	320	--	--	1.5	<10	0.0	<0.050	2.2	280	
R-41AD	41.82	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.35	85	330	--	--	2.2	<10	0.0	<0.050	2.5	280	
R-41AD	41.62	--	02/18/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.25	174	330	--	--	2.3	<10	0.0	<0.050	2.5	300	
R-41AD	41.48	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	69	330	--	--	2.1	<10	0.0	<0.050	2.5	300	
R-41AD	41.22	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.53	57	340	--	--	1.8	<10	--	<0.050	2.8	290	
R-41AD	40.87	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.44	120	360	--	--	2.2	<10	0.0	<0.050	2.6	290	
R-41AD	40.59	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.27	104	290	--	--	2.6	<10	0.0	<0.050	3.2	290	
R-41AD	41.20	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.57	108	220	--	--	18	<10	0.0	0.059	1.3	180	
R-41AD	41.92	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.63	43	290	--	--	4.8	<10	0.0	0.026	2.5	270	
R-41AD	42.40	--	11/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.97	106	170	--	--	43	<10	0.0	0.13	4.6	140	
R-42AS	36.26	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	<1.0	<1.0	<1.0	<10	--	0.49	140	490	--	--	3.1	<10	0.2	0.090	4.0	330	
R-42AS	35.81	--	04/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	<10	--	0.53	87	500	--	--	5.3	<10	0.6	0.36	1.4	350	
R-42AS	35.13	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	<1.0	<1.0	<1.0	<10	--	0.39	64	440	--	--	3.0	<10	0.8	0.83	<0.25	390	
R-42AS (DS#10)	--	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.55	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-42AS
R-42AS	34.05	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	0.48	42	430	--	--	11	<10	0.2	1.0	<0.25	360	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
R-42AS	32.75	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.55	<1.0	<1.0	<1.0	<10	--	0.74	194	450	--	--	3.7	<10	0.0	2.5	0.34	390		
R-42AS	31.95	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<10	--	0.44	-26	460	--	--	4.3	<10	3.2	7.4	0.73	350		
R-42AS	31.11	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	<10	--	0.59	--	--	--	--	--	<10	--	5.9	--	--	Insufficient H2O for full MNA Sampling	
R-42AS	--	--	10/31/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample	
R-42AS	--	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	--	0.06	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample	
R-42AS	36.51	--	05/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	<1.0	<1.0	<1.0	61	--	0.50	143	380	--	--	2.4	<10	0.0	<0.050	<0.25	360		
R-42AS (DS#16)	--	--	05/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	52	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-42AS
R-42AS	38.91	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	<1.0	<1.0	<1.0	<10	--	0.85	73	480	--	--	4.0	<10	0.0	0.12	<0.25	390		
R-42AS	40.45	--	11/03/14	<0.50	0.63 CL	<0.50	<0.50	<0.50	<0.50	1.9	<1.0	<1.0	<1.0	<10	--	0.61	-40	490	--	--	9.4	<10	1.6	0.81	<0.25	410		
R-42AM	35.83	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.65	<1.0	<1.0	<1.0	19	--	0.47	156	370	--	--	4.7	<10	0.8	0.14	<0.25	270		
R-42AM	35.26	--	04/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	0.63	-18	390	--	--	5.3	<10	0.2	<0.050	<0.25	240		
R-42AM	34.52	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.24	-12	350	--	--	3.9	<10	1.0	<0.050	<0.25	230		
R-42AM	33.60	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	26	390	--	--	11	<10	0.4	<0.050	<0.25	260		
R-42AM	32.34	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	0.71	<1.0	<1.0	<1.0	<10	--	0.54	117	380	--	--	3.0	<10	0.0	0.43	0.33	190		
R-42AM	31.40	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.72	<1.0	<1.0	<1.0	<10	--	0.43	-9	380	--	--	3.0	<10	0.4	<0.050	<0.25	210		
R-42AM (DS#9)	--	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-42AM	
R-42AM	29.81	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.52	<1.0	<1.0	<1.0	13	--	0.63	-37	390	--	--	2.7	14	1.4	0.067	<0.25	240		
R-42AM	28.85	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	19	--	0.55	-26	360	--	--	3.8	<10	0.0	<0.050	<0.25	220		
R-42AM	31.96	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.14	-23	290	--	--	3.9	<10	0.4	<0.050	<0.25	220		
R-42AM	36.74	--	05/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.55	<1.0	<1.0	<1.0	52	--	0.49	-18	340	--	--	2.8	<10	0.6	0.16	<0.25	240		
R-42AM (DS#17)	--	--	05/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.55	<1.0	<1.0	<1.0	47	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-42AM	
R-42AM	38.98	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.57	<1.0	<1.0	<1.0	<10	--	0.69	-38	320	--	--	6.0	<10	0.0	<0.050	0.33	240		
R-42AM	40.58	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.68	-16	320	--	--	3.5	<10	0.0	<0.050	0.51	240		
R-42AD	35.85	--	02/08/12	<0.50	<0.50	0.95	0.82	<0.50	0.75	0.92	<1.0	<1.0	<1.0	<10	--	0.51	156	370	--	--	5.8	<10	0.2	<0.050	<0.25	260		
R-42AD	35.20	--	04/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.48	42	360	--	--	5.8	<10	0.0	<0.050	<0.25	270		
R-42AD	34.52	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.26	79	340	--	--	3.9	<10	0.0	<0.050	<0.25	280		

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-42AD	33.61	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.38	44	360	--	--	16	<10	0.0	<0.050	<0.25	250	
R-42AD	32.42	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.49	177	370	--	--	4.0	<10	0.0	<0.050	<0.25	280	
R-42AD	31.36	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	108	350	--	--	4.5	<10	0.0	<0.050	<0.25	260	
R-42AD	29.83	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.68	94	370	--	--	4.3	<10	0.0	<0.050	<0.25	260	
R-42AD	28.84	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.57	<1.0	<1.0	<1.0	<10	--	0.61	88	360	--	--	4.6	<10	0.0	<0.050	0.59	240	
R-42AD	32.00	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	53	260	--	--	5.3	<10	0.0	<0.050	0.81	240	
R-42AD	36.77	--	05/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.25	182	130	--	--	9.7	<10	0.2	0.068	8.4	15	
R-42AD	39.01	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	142	170	--	--	12	<10	0.0	0.056	9.1	46	
R-42AD (DS#15)	--	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-42AD
R-42AD	40.55	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.72	202	210	--	--	12	<10	0.0	<0.050	7.3	86	
R-43AS	33.28	--	02/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	0.88	<1.0	<1.0	<1.0	230	--	0.12	125	760	--	--	9.3	43	2.0	1.4	<0.25	320	
R-43AS	32.29	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.81	<1.0	<1.0	<1.0	150	--	0.74	-29	--	--	--	--	--	--	--	--	--	
R-43AS (DS#10)	--	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.68	<1.0	<1.0	<1.0	120	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-43AS
R-43AS	32.16	--	08/17/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	17	--	0.33	-62	590	--	--	8.8	12	0.0	0.13	<0.25	280	
R-43AS	30.73	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.54	<1.0	<1.0	<1.0	83	--	0.04	50	620	--	--	7.8	120	2.2	5.2	<0.25	260	
R-43AS (DS#8)	--	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.65	<1.0	<1.0	<1.0	92	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-43AS
R-43AS	30.44	--	02/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	<1.0	<1.0	<1.0	53	--	0.50	-42	--	--	--	--	--	--	--	--	--	
R-43AS	29.75	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.53	1.2	<1.0	<1.0	90	<0.005	0.61	-75	--	--	--	--	--	--	--	--	--	
R-43AS	29.27	--	08/05/13	--	--	--	--	--	--	--	--	--	--	--	--	0.98	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-43AS	29.59	--	11/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	0.72	<0.50	<1.0	<1.0	<1.0	<10	--	0.78	--	--	--	--	--	98	--	0.13	<0.25	320	Insufficient H2O for complete MNA Sampling
R-43AS	32.29	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.73	<1.0	<1.0	<1.0	<10	--	1.14	142	--	--	--	--	--	0.0	--	--	--	
R-43AS	36.86	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.87	<1.0	<1.0	<1.0	<10	--	0.61	-2	--	--	--	--	--	--	--	--	--	
R-43AS	39.26	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.82	<1.0	<1.0	<1.0	<10	--	1.21	21	--	--	--	--	--	--	--	--	--	
R-43AS	41.12	--	11/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.80	<1.0	<1.0	<1.0	<10	--	1.68	54	540	--	--	6.7	18	0.0	0.15	<0.25	380	
R-43AS-R	31.92	--	08/17/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	21	<1.0	<1.0	<1.0	620	--	0.35	-92	660	--	--	17	46	3.2	0.93	<0.25	190	
R-43AS-R	31.76	--	09/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	<1.0	<1.0	<1.0	270	--	0.57	-70	630	--	--	8.3	76	6.2	0.32	<0.25	240	Pre-Purge Data

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
R-43AS-R	--	--	09/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.0	<1.0	<1.0	<1.0	390	--	2.14	-75	600	--	--	8.7	25	6.4	4.3	<0.25	220	Post-Purge Data	
R-43AS-R	30.60	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.5	<1.0	<1.0	<1.0	350	--	0.09	-6	620	--	--	9.0	1,400	2.2	8.0	<0.25	220		
R-43AS-R	30.23	--	02/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	120	--	1.21	-19	--	--	--	--	--	--	--	--	--		
R-43AS-R	29.74	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	<1.0	<1.0	<1.0	130	<0.005	0.55	-74	530	--	--	9.0	3,500	3.4	8.4	<0.25	260		
R-43AS-R	28.20	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.59	<1.0	<1.0	<1.0	94	<0.005	0.33	-95	700	--	--	8.0	4,500	0.8	9.8	<0.25	210		
R-43AS-R (DS#12)	--	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.52	<1.0	<1.0	<1.0	67	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-43AS-R
R-43AS-R	28.26	--	11/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.94	<1.0	<1.0	<1.0	27	--	0.78	-86	670	--	--	12	5,000	--	6.4	<0.25	220		
R-43AS-R	32.10	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.81	167	--	--	--	--	--	--	--	--	--		
R-43AS-R	36.72	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.76	<1.0	<1.0	<1.0	<10	--	0.65	-23	--	--	--	--	--	--	--	--	--		
R-43AS-R	39.22	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.82	<1.0	<1.0	<1.0	17	--	0.74	74	--	--	--	--	--	--	--	--	--		
R-43AS-R (DS#13)	--	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.0	<1.0	<1.0	<1.0	26	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-43AS-R
R-43AS-R	41.06	--	11/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.97	<1.0	<1.0	<1.0	13	--	1.11	30	620	--	--	6.8	41	0.0	<0.050	<0.25	340		
R-43AD	33.12	--	02/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	<10	--	0.12	89	360	--	--	4.3	<10	0.0	<0.050	0.96	360		
R-43AD	32.19	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	<1.0	<1.0	<1.0	<10	--	0.70	18	--	--	--	--	--	--	--	--	--		
R-43AD	31.77	--	08/17/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	<1.0	<1.0	<1.0	<10	--	0.16	51	--	--	--	--	--	--	--	--	--		
R-43AD	30.53	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	<10	--	1.12	7	370	--	--	4.6	<10	0.0	<0.050	0.94	330		
R-43AD	30.35	--	02/06/13	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.33	11	--	--	--	--	--	--	--	--	--		
R-43AD	--	--	05/06/13	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	1.1	<2.0	<2.0	<2.0	<20	--	0.49	190	--	--	--	--	--	0.0	--	--	--		
R-43AD (DS#10)	--	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-43AD	
R-43AD	28.94	--	05/07/13	--	--	--	--	--	--	--	--	--	--	--	<0.005	--	--	78	--	--	41	<10	--	0.73	0.26	12		
R-43AD	27.80	--	08/05/13	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	1.2	<2.0	<2.0	<2.0	<20	<0.005	1.15	134	190	--	--	22	13	1.0	0.16	<0.25	95		
R-43AD	27.75	--	11/06/13	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	1.9	<2.0	<2.0	<2.0	<20	--	0.90	42	190	--	--	33	31	0.0	0.12	<0.25	110		
R-43AD	32.25	--	02/13/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	1.1	<2.0	<2.0	<2.0	<20	--	0.11	88	--	--	--	--	--	--	--	--	--		
R-43AD	36.97	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.63	<1.0	<1.0	<1.0	<10	--	0.56	73	--	--	--	--	--	--	--	--	--		
R-43AD (DS#11)	--	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.62	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-43AD	
R-43AD	39.34	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.70	15	--	--	--	--	--	--	--	--	--		

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters																											
Mission Valley Terminal, San Diego, CA																											
ARCADIS CM010143.0175																											
Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-43AD	41.18	--	11/06/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.79	53	280	--	--	20	28	0.0	0.20	<0.25	120	
R-44AS	34.00	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	87	--	--	--	--	--	--	--	--	--	
R-44AS	--	--	05/01/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-44AS	33.16	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-44AS	--	--	11/01/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-44AS	--	40.44	02/07/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-44AS	--	40.51	05/06/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-44AS	--	40.45	08/05/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-44AS	--	40.45	11/11/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-44AS	--	40.44	02/13/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-44AS	36.99	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.53	<1.0	<1.0	<1.0	<10	--	2.20	112	--	--	--	--	--	--	--	--	--	
R-44AS	39.47	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	<1.0	<1.0	<1.0	<10	--	0.94	71	--	--	--	--	--	--	--	--	--	
R-44AS	41.33	--	11/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.67	74	340	--	--	5.6	18	0.0	<0.050	<0.25	300	
R-44AM	33.67	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	<1.0	<1.0	<1.0	<10	--	0.51	101	--	--	--	--	--	--	--	--	--	
R-44AM	32.55	--	05/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.3	<1.0	<1.0	<1.0	<10	--	0.59	20	--	--	--	--	--	--	--	--	--	
R-44AM	32.41	--	08/17/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<1.0	<1.0	<1.0	<10	--	0.23	-48	--	--	--	--	--	--	--	--	--	
R-44AM	31.37	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.04	-35	350	--	--	18	<10	0.0	0.41	0.27	270	
R-44AM	30.89	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.90	<1.0	<1.0	<1.0	<10	--	1.13	-80	--	--	--	--	--	--	--	--	--	
R-44AM (DS#8)	--	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.97	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-44AM
R-44AM	--	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	<1.0	<1.0	<1.0	<10	--	0.31	-84	--	--	--	--	--	1.2	--	--	--	
R-44AM	29.52	--	05/07/13	--	--	--	--	--	--	--	--	--	--	--	0.079	--	--	330	--	--	15	610	--	0.70	<0.25	250	
R-44AM	28.30	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<1.0	<1.0	<1.0	<10	<0.005	0.71	8	360	--	--	4.1	<10	0.0	<0.050	<0.25	260	
R-44AM	28.25	--	11/11/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	0.34	28	350	--	--	6.1	27	0.4	0.71	<0.25	280	
R-44AM	32.34	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	<10	--	0.22	-14	--	--	--	--	--	0.0	--	--	--	
R-44AM	37.04	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	<1.0	<1.0	<1.0	<10	--	0.76	40	--	--	--	--	--	--	--	--	--	
R-44AM	39.49	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	<10	--	0.76	-89	--	--	--	--	--	--	--	--	--	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-44AM	41.30	--	11/10/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	1.37	114	360	--	--	4.1	16	0.0	<0.050	<0.25	280	
R-44AD	33.56	--	02/14/12	<0.50	<0.50	0.55	<0.50	<0.50	<0.50	1.7	<1.0	<1.0	<1.0	<10	--	0.59	102	--	--	--	--	--	--	--	--	--	
R-44AD	32.50	--	05/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	0.88	18	--	--	--	--	--	--	--	--	--	
R-44AD	32.45	--	08/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.08	84	--	--	--	--	--	--	--	--	--	
R-44AD	31.28	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.10	85	350	--	--	6.3	<10	0.0	<0.050	0.86	280	
R-44AD	30.82	--	02/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.55	<0.50	<1.0	<1.0	<10	--	0.40	96	--	--	--	--	--	--	--	--	--	
R-44AD	29.52	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	<1.0	<1.0	<1.0	<10	--	0.61	82	--	--	--	--	--	--	--	--	--	
R-44AD	28.15	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.76	42	--	--	--	--	--	--	--	--	--	
R-44AD	28.20	--	11/11/13	<0.50	0.77*	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.24	77	330	--	--	27	<10	0.4	0.13	0.61	290	
R-44AD	32.25	--	02/13/14	<0.50	0.52CZ	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.10	113	--	--	--	--	--	0.0	--	--	--	
R-44AD	36.97	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	89	--	--	--	--	--	--	--	--	--	
R-44AD	39.42	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.74	-34	--	--	--	--	--	--	--	--	--	
R-44AD	41.18	--	11/10/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.83	<1.0	<1.0	<1.0	<10	--	0.97	148	350	--	--	5.7	<10	0.0	<0.050	<0.25	280	
R-45AS	36.23	--	02/08/12	--	--	--	--	--	--	--	--	--	--	--	--	0.43	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AS	35.78	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.33	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AS	35.03	--	08/13/12	--	--	--	--	--	--	--	--	--	--	--	--	0.92	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AS	34.15	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.0	<1.0	<1.0	<1.0	<10	--	0.27	-6	430	--	--	18	20	1.0	<0.050	<0.25	240	
R-45AS	32.79	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	--	0.86	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AS	31.98	--	04/30/13	--	--	--	--	--	--	--	--	--	--	--	--	0.38	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AS	30.55	--	07/30/13	--	--	--	--	--	--	--	--	--	--	--	--	0.72	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AS	--	--	10/31/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-45AS	31.51	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	--	0.72	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AS	36.60	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AS	38.91	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.36	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AS	40.49	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.84	<1.0	<1.0	<1.0	<10	--	0.44	-39	360	--	--	4.5	11	2.2	0.89	<0.25	350	
R-45AM	35.86	--	02/08/12	--	--	--	--	--	--	--	--	--	--	--	--	0.64	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-45AM	35.59	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	0.29	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AM	34.70	--	08/13/12	--	--	--	--	--	--	--	--	--	--	--	1.08	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AM	33.84	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.70	<1.0	<1.0	<1.0	<10	--	0.11	-22	420	--	--	13	<10	0.8	0.10	<0.25	270	
R-45AM	32.68	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	0.76	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AM	31.67	--	04/30/13	--	--	--	--	--	--	--	--	--	--	--	0.34	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AM	30.17	--	07/30/13	--	--	--	--	--	--	--	--	--	--	--	0.67	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AM	29.22	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	<10	--	0.70	-21	390	--	--	16	<10	0.0	0.052	<0.25	190	
R-45AM	32.05	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	0.54	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AM	36.76	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.36	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AM	39.06	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.43	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AM	40.62	--	11/03/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.46	-22	340	--	--	48	<10	0.0	0.057	<0.25	150	
R-45AD	36.01	--	02/08/12	--	--	--	--	--	--	--	--	--	--	--	0.81	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AD	35.66	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	0.27	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AD	34.76	--	08/13/12	--	--	--	--	--	--	--	--	--	--	--	0.69	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AD	33.87	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	-54	320	--	--	4.3	<10	1.5	<0.050	<0.25	280	
R-45AD	32.62	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	0.84	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AD	31.83	--	04/30/13	--	--	--	--	--	--	--	--	--	--	--	0.27	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AD	30.22	--	07/30/13	--	--	--	--	--	--	--	--	--	--	--	0.79	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AD	29.22	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.86	<1.0	<1.0	<1.0	<10	--	0.66	-16	330	--	--	5.3	<10	0.0	<0.050	<0.25	280	
R-45AD (DS#6)	--	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.92	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-45AD
R-45AD	32.07	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	0.64	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AD	36.68	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.33	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AD	39.04	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.36	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-45AD	40.62	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	-61	280	--	--	5.3	<10	0.0	<0.050	0.50	280	
R-46AS	38.49	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.19	-107	320	--	--	5.1	67	4.0	9.0	<0.25	220	
R-46AS	38.14	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.19	-85	320	--	--	5.5	270	0.0	5.6	<0.25	150	
R-46AS	37.17	--	08/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.24	-100	260	--	--	4.4	30	4.0	3.9	<0.25	150	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-46AS	36.74	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.27	-72	340	--	--	4.3	130	5.4	4.9	<0.25	190	
R-46AS	36.02	--	02/20/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.30	-58	340	--	--	5.5	140	5.0	7.5	<0.25	220	
R-46AS	35.08	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.40	-106	310	--	--	5.0	150	2.6	3.9	<0.25	180	
R-46AS	34.43	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.70	-102	340	--	--	4.3	190	5.2	5.2	<0.25	220	
R-46AS	34.03	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.74	-110	340	--	--	4.9	350	3.0	2.7	<0.25	220	
R-46AS	34.71	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.81	-90	290	--	--	6.6	540	2.6	4.0	<0.25	240	
R-46AS	37.48	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	-129	340	--	--	9.2	630	0.0	8.6	<0.25	170	
R-46AS (DS#15)	--	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-46AS
R-46AS	38.71	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	-114	450	--	--	8.8	570	2.8	7.2	<0.25	100	
R-46AS	39.32	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.11	-91	330	--	--	5.8	680	0.8	5.7	<0.25	190	
R-46AD	38.76	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.13	-90	330	--	--	9.0	<10	1.8	<0.050	<0.25	200	
R-46AD (DS#8)	--	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-46AD
R-46AD	38.44	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	-75	210	--	--	6.5	<10	2.0	<0.050	1.5	100	
R-46AD	37.52	--	08/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.72	<1.0	<1.0	<1.0	<10	--	0.28	-80	340	--	--	4.5	13	1.8	1.2	<0.25	230	
R-46AD	37.01	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.78	<1.0	<1.0	<1.0	<10	--	0.19	-76	300	--	--	6.8	<10	1.6	0.058	<0.25	210	
R-46AD	36.70	--	02/20/13	<0.50	<0.50	<0.50	<0.50	0.76	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.46	-62	270	--	--	6.5	<10	1.6	0.12	0.99	190	
R-46AD	35.78	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.40	-84	240	--	--	6.0	<10	2.0	<0.050	1.3	130	
R-46AD	35.19	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.53	-58	300	--	--	5.3	<10	1.8	<0.050	0.94	180	
R-46AD	34.79	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.47	-70	310	--	--	14	110	1.8	<0.050	0.31	180	
R-46AD	35.48	--	02/12/14	<0.50	<0.50	<0.50	<0.50	0.52	1.1	<0.50	<1.0	<1.0	<1.0	<10	--	0.70	-60	280	--	--	6.3	25	0.0	<0.050	<0.25	200	
R-46AD	37.79	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.38	-81	300	--	--	5.4	<10	0.2	<0.050	<0.25	200	
R-46AD	38.73	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.40	-86	280	--	--	26	10	0.0	<0.050	<0.25	190	
R-46AD	39.83	--	11/03/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.13	-57	69	--	--	29	11	0.0	0.074	2.3	75	
R-46FS	38.74	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.05	-108	200	--	--	2.2	980	0.8	0.19	<0.25	130	
R-46FS	38.45	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.67	<1.0	<1.0	<1.0	<10	--	0.26	-84	200	--	--	2.6	450	1.0	0.14	<0.25	150	
R-46FS	37.53	--	08/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.18	-102	190	--	--	2.4	190	1.8	0.083	<0.25	140	
R-46FS	36.98	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.70	<1.0	<1.0	<1.0	<10	--	0.16	-66	200	--	--	2.2	510	1.4	0.16	<0.25	140	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-46FS	36.67	--	02/20/13	<0.50	<0.50	<0.50	<0.50	<0.50	0.63	0.82	<1.0	<1.0	<1.0	<10	--	0.21	-60	210	--	--	2.5	630	1.4	0.53	<0.25	150	
R-46FS	35.79	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.62	<1.0	<1.0	<1.0	<10	--	0.28	-78	220	--	--	2.8	320	1.8	0.20	<0.25	140	
R-46FS (DS#7)	--	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-46FS
R-46FS	35.29	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.55	<1.0	<1.0	<1.0	<10	--	0.38	-74	220	--	--	2.4	46	1.8	0.058	<0.25	140	
R-46FS	34.97	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.62	<1.0	<1.0	<1.0	<10	--	0.50	-84	230	--	--	2.9	43	1.2	<0.050	<0.25	150	
R-46FS	35.47	--	02/12/14	<0.50	<0.50	1.2	0.62	0.94	2.8	0.56	<1.0	<1.0	<1.0	<10	--	0.63	-39	200	--	--	3.3	27	0.0	<0.050	<0.25	150	
R-46FS	37.77	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	-63	210	--	--	3.1	11	0.2	<0.050	<0.25	150	
R-46FS	38.93	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<10	--	0.46	-83	200	--	--	2.6	2,600	0.8	0.54	<0.25	140	
R-46FS	39.89	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.15	-51	210	--	--	3.5	2,500	1.0	0.43	<0.25	150	
R-47AS	36.73	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	<1.0	<1.0	<1.0	<10	--	0.14	-31	540	--	--	8.6	210	3.8	10	<0.25	150	
R-47AS	36.60	--	04/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	<1.0	<1.0	<1.0	<10	--	0.98	-103	550	--	--	6.6	210	1.8	9.3	<0.25	160	
R-47AS (DS#7)	--	--	04/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-47AS
R-47AS	34.88	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<10	--	0.31	-69	480	--	--	6.6	290	3.4	4.0	<0.25	230	
R-47AS (DS#6)	--	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.95	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-47AS
R-47AS	34.68	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	0.21	-88	460	--	--	5.6	390	6.0	7.0	<0.25	180	
R-47AS	33.13	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.69	<1.0	<1.0	<1.0	<10	--	0.53	2	560	--	--	5.6	750	2.2	11	<0.25	210	
R-47AS (DS#12)	--	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.76	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-47AS
R-47AS	32.26	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<10	--	0.46	-55	530	--	--	5.4	590	3.8	5.9	<0.25	210	
R-47AS	30.70	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.60	<1.0	<1.0	<1.0	<10	--	0.66	-77	550	--	--	6.3	950	7.8	4.4	<0.25	220	
R-47AS	30.17	--	10/31/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-47AS	32.10	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.63	<1.0	<1.0	<1.0	<10	--	0.36	-56	350	--	--	7.1	430	0.0	6.1	<0.25	240	
R-47AS	36.74	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	<10	--	0.17	-97	330	--	--	4.8	210	0.0	4.5	<0.25	260	
R-47AS	38.74	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	<1.0	<1.0	<1.0	<10	--	0.41	-134	350	--	--	4.9	200	0.0	5.0	<0.25	250	
R-47AS	40.11	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	0.61	-66	330	--	--	5.5	180	3.6	4.1	<0.25	260	
R-47AM	36.73	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	8.4	<1.0	<1.0	<1.0	<10	--	0.12	-120	400	--	--	6.1	23	1.2	2.5	<0.25	230	
R-47AM	36.54	--	04/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	5.4	<1.0	<1.0	<1.0	<10	--	0.72	-83	410	--	--	7.4	<10	2.0	<0.050	<0.25	220	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-47AM	35.48	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.0	<1.0	<1.0	<1.0	<10	--	0.19	-94	380	--	--	5.0	<10	3.8	<0.050	<0.25	270	
R-47AM	34.63	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.61	<1.0	<1.0	<1.0	<10	--	0.09	-98	370	--	--	5.5	<10	4.5	<0.050	<0.25	210	
R-47AM	33.38	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	0.67	0.88	<1.0	<1.0	<1.0	<10	--	0.31	-20	410	--	--	6.6	<10	1.2	0.091	<0.25	260	
R-47AM	32.22	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.81	<1.0	<1.0	<1.0	<10	--	1.11	-96	390	--	--	4.9	<10	4.8	<0.050	<0.25	250	
R-47AM (DS#3)	--	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.80	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-47AM
R-47AM	30.61	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.77	<1.0	<1.0	<1.0	<10	--	0.65	-94	390	--	--	4.7	<10	5.2	<0.050	<0.25	260	
R-47AM (DS#1)	--	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.78	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-47AM
R-47AM	29.44	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.0	<1.0	<1.0	<1.0	<10	--	0.61	-90	380	--	--	9.4	39	2.2	5.5	<0.25	260	
R-47AM	32.28	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.68	<1.0	<1.0	<1.0	<10	--	0.99	-80	320	--	--	8.3	17	0.0	0.086	<0.25	240	
R-47AM	36.77	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	-80	300	--	--	5.8	<10	2.8	0.14	<0.25	240	
R-47AM	38.65	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.29	-112	280	--	--	5.3	<10	1.6	<0.050	0.33	250	
R-47AM	39.16	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.55	<1.0	<1.0	<1.0	<10	--	0.46	-105	330	--	--	9.9	34	0.8	<0.050	<0.25	260	
R-47AD	36.68	--	02/07/12	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.11	-151	140	--	--	51	<10	1.6	0.090	<0.25	19	
R-47AD	36.48	--	04/26/12	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.54	-100	150	--	--	48	<10	0.0	0.25	0.48	33	
R-47AD	35.38	--	08/09/12	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.13	-87	160	--	--	37	<10	0.0	0.22	<0.25	27	
R-47AD	34.46	--	11/06/12	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.11	-91	160	--	--	37	<10	4.0	0.28	<0.25	28	
R-47AD	33.34	--	02/19/13	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.66	14	270	--	--	27	<10	0.6	0.60	<0.25	130	
R-47AD	32.18	--	04/30/13	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.34	-85	250	--	--	22	<10	0.0	0.37	<0.25	130	
R-47AD	30.39	--	07/30/13	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.48	-93	290	--	--	15	<10	6.0	0.094	<0.25	150	
R-47AD	29.24	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.52	-96	310	--	--	12	<10	0.0	0.052	0.39	200	
R-47AD	32.16	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	-78	270	--	--	14	<10	0.0	<0.050	0.78	180	
R-47AD	36.81	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.17	-82	290	--	--	8.3	<10	0.0	<0.050	0.42	220	
R-47AD	38.78	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	-113	300	--	--	7.8	<10	0.0	<0.050	0.54	230	
R-47AD	40.16	--	11/04/14	<1.0	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<10	<10	<100	--	0.45	-101	220	--	--	39	<10	0.0	0.15	1.5	150	
R-48AS	35.93	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	0.23	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AS	35.80	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.95	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AS	35.01	--	08/13/12	--	--	--	--	--	--	--	--	--	--	--	--	0.33	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-48AS	34.11	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.0	<1.0	<1.0	<1.0	<10	--	0.69	63	540	--	--	5.1	14	1.0	0.27	<0.25	190	
R-48AS	32.77	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	--	0.72	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AS	31.88	--	05/06/13	--	--	--	--	--	--	--	--	--	--	--	--	0.65	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AS	30.38	--	07/30/13	--	--	--	--	--	--	--	--	--	--	--	--	0.84	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AS	--	--	10/31/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-48AS	31.30	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	--	0.23	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AS	36.61	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.58	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AS	38.74	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.35	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AS	40.40	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.50	-27	410	--	--	4.1	16	2.2	0.11	<0.25	310	
R-48AS (DS#9)	--	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-48AS
R-48AM	35.43	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	0.15	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AM	35.63	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.87	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AM	34.67	--	08/13/12	--	--	--	--	--	--	--	--	--	--	--	--	0.95	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AM	33.81	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.98	<1.0	<1.0	<1.0	<10	--	0.30	-45	450	--	--	17	<10	2.2	0.61	<0.25	200	
R-48AM	32.63	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	--	0.55	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AM	31.64	--	05/06/13	--	--	--	--	--	--	--	--	--	--	--	--	0.41	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AM	30.12	--	07/30/13	--	--	--	--	--	--	--	--	--	--	--	--	0.57	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AM	29.11	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.66	-70	430	--	--	4.8	<10	0.0	<0.050	<0.25	230	
R-48AM	31.94	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	--	0.67	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AM	36.77	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.36	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AM	38.98	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.36	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AM	40.51	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.61	-72	350	--	--	6.2	<10	0.0	<0.050	1.1	210	
R-48AD	35.38	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AD	35.63	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.68	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AD	34.70	--	08/13/12	--	--	--	--	--	--	--	--	--	--	--	--	0.52	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AD	33.60	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	<1.0	<1.0	<1.0	<10	--	0.31	-14	350	--	--	5.7	23	1.2	<0.050	<0.25	230	

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-48AD	32.56	--	02/19/13	--	--	--	--	--	--	--	--	--	--	--	0.52	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AD	31.68	--	05/06/13	--	--	--	--	--	--	--	--	--	--	--	0.29	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AD	30.28	--	07/30/13	--	--	--	--	--	--	--	--	--	--	--	0.68	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AD	29.08	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.71	<1.0	<1.0	<1.0	<1.0	0.60	--	350	--	--	5.3	<10	0.0	<0.050	0.28	230	--	
R-48AD	31.90	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	0.72	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AD	36.80	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AD	38.96	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.41	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-48AD	40.53	--	11/03/14	<0.50	0.52 CL	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	0.80	-60	300	--	--	5.5	<10	0.0	<0.050	0.34	240	--	
R-60AS	37.49	--	02/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	0.19	113	--	--	--	--	--	--	--	--	--	--	--
R-60AS	37.50	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	0.32	133	--	--	--	--	--	--	--	--	--	--	--
R-60AS	37.28	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	0.28	23	--	--	--	--	--	--	--	--	--	--	--
R-60AS	36.47	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	0.25	25	--	--	--	--	--	--	--	--	--	--	--
R-60AS	35.92	--	02/18/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	0.24	142	--	--	--	--	--	--	--	--	--	--	--
R-60AS	35.36	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	0.41	-29	--	--	--	--	--	--	--	--	--	--	--
R-60AS	34.77	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	0.54	70	--	--	--	--	--	--	--	--	--	--	--
R-60AS	34.12	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	0.57	-49	--	--	--	--	--	--	--	--	--	--	--
R-60AS	34.46	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	0.36	-24	--	--	--	--	--	--	--	--	--	--	--
R-60AS	38.15	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	1.72	98	--	--	--	--	--	--	--	--	--	--	--
R-60AS	40.23	--	08/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	0.13	168	--	--	--	--	--	--	--	--	--	--	--
R-60AS (DS#17)	--	--	08/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-60AS
R-60AS	42.08	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	0.34	76	--	--	--	--	--	--	--	--	--	--	--
R-60AM	37.40	--	02/16/12	--	--	--	--	--	--	--	--	--	--	--	0.14	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AM	37.47	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AM	37.25	--	08/09/12	--	--	--	--	--	--	--	--	--	--	--	0.24	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AM	36.46	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.62	<1.0	<1.0	<1.0	<1.0	0.29	-109	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AM	35.80	--	02/18/13	--	--	--	--	--	--	--	--	--	--	--	0.24	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AM	35.34	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	0.36	--	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters																											
Mission Valley Terminal, San Diego, CA																											
ARCADIS CM010143.0175																											
Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-60AM	34.60	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.72	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AM	34.15	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.76	<1.0	<1.0	<1.0	<10	--	0.61	-110	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AM	34.46	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	--	0.49	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AM	38.17	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.31	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AM	40.18	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	1.25	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AM	41.98	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.76	-128	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AD	37.38	--	02/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AD	37.41	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.27	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AD	37.19	--	08/09/12	--	--	--	--	--	--	--	--	--	--	--	--	0.19	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AD	36.33	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.80	<1.0	<1.0	<1.0	<10	--	0.33	-120	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AD	35.71	--	02/18/13	--	--	--	--	--	--	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AD	35.19	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	--	0.42	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AD	34.44	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.66	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AD	33.94	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.71	<1.0	<1.0	<1.0	<10	--	0.69	-107	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AD (DS#7)	--	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-60AD
R-60AD	34.31	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AD	38.16	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.35	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AD	40.18	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	1.47	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-60AD	41.83	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.46	-129	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AS	39.75	--	02/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.15	228	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AS	40.07	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	45	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AS (DS#9)	--	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-61AS
R-61AS	39.80	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.69	-11	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AS	39.18	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.25	15	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AS	38.88	--	02/18/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	72	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AS	38.64	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.56	-13	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AS	38.15	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.85	41	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-61AS	37.90	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.70	18	--	--	--	--	--	--	--	--	--	
R-61AS	37.63	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.52	22	--	--	--	--	--	--	--	--	--	
R-61AS	40.16	--	05/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	225	--	--	--	--	--	--	--	--	--	
R-61AS (DS#18)	--	--	05/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-61AS
R-61AS	41.41	--	08/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.57	137	--	--	--	--	--	--	--	--	--	
R-61AS	43.42	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	92	--	--	--	--	--	--	--	--	--	
R-61AM	39.61	--	02/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.17	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AM	39.98	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.48	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AM	39.77	--	08/09/12	--	--	--	--	--	--	--	--	--	--	--	--	0.44	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AM	39.09	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.44	-74	--	--	--	--	--	--	--	--	--	
R-61AM	38.86	--	02/18/13	--	--	--	--	--	--	--	--	--	--	--	--	0.23	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AM	38.57	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	--	0.46	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AM	38.07	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	1.17	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AM	37.72	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.59	-89	--	--	--	--	--	--	--	--	--	
R-61AM	37.70	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	--	0.61	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AM	40.19	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AM	41.45	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	1.10	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AM	43.33	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.34	-88	--	--	--	--	--	--	--	--	--	
R-61AD	39.55	--	02/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.16	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AD	39.86	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.41	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AD	39.65	--	08/09/12	--	--	--	--	--	--	--	--	--	--	--	--	0.38	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AD	38.99	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.47	-109	--	--	--	--	--	--	--	--	--	
R-61AD (DS#19)	--	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-61AD
R-61AD	38.70	--	02/18/13	--	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AD	38.36	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	--	0.52	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AD	37.92	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AD	37.60	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.69	-107	--	--	--	--	--	--	--	--	--	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-61AD	37.50	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	0.49	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AD	40.01	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	1.53	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AD	41.36	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	1.20	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-61AD	43.29	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.29	--	-115	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AS	42.40	--	02/16/12	--	--	--	--	--	--	--	--	--	--	--	0.15	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AS	43.04	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AS	42.65	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AS	42.07	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.39	--	-12	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AS	42.02	--	02/08/13	--	--	--	--	--	--	--	--	--	--	--	0.38	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AS	41.83	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	0.47	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AS	41.67	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	0.90	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AS	41.32	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.79	--	-98	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AS	41.01	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	0.77	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AS	42.60	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.33	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AS	42.93	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	1.31	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AS	45.04	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.38	--	127	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AM	42.28	--	02/16/12	--	--	--	--	--	--	--	--	--	--	--	0.14	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AM	42.79	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	0.25	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AM	42.50	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	0.25	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AM	41.91	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.15	--	-62	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AM	41.84	--	02/08/13	--	--	--	--	--	--	--	--	--	--	--	0.42	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AM	41.70	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	0.43	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AM	41.42	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	0.81	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AM	41.08	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	0.57	--	-69	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AM	40.75	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	0.88	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AM	42.52	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.32	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AM	42.85	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	1.36	--	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters																												
Mission Valley Terminal, San Diego, CA																												
ARCADIS CM010143.0175																												
Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
R-62AM	45.15	--	11/04/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.47	-82	--	--	--	--	--	--	--	--	--	--	
R-62AD	41.88	--	02/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AD	42.32	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.19	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AD	42.10	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AD	41.43	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.86	<1.0	<1.0	<1.0	<10	--	0.33	-85	--	--	--	--	--	--	--	--	--	--	
R-62AD	41.43	--	02/08/13	--	--	--	--	--	--	--	--	--	--	--	--	0.69	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AD	41.18	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	--	0.54	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AD	40.91	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.96	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AD	40.66	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.53	-99	--	--	--	--	--	--	--	--	--	--	
R-62AD	40.36	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	--	0.67	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AD	42.12	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.37	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AD	42.61	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.97	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-62AD	44.88	--	11/04/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<20	--	0.39	-102	--	--	--	--	--	--	--	--	--	--	
R-63AS	39.76	--	02/07/12	--	--	--	--	--	--	--	--	--	--	--	--	0.14	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AS	40.11	--	04/25/12	--	--	--	--	--	--	--	--	--	--	--	--	0.38	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AS	39.52	--	08/07/12	--	--	--	--	--	--	--	--	--	--	--	--	0.23	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AS	39.06	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	-84	410	--	--	5.8	73	5.0	5.9	<0.25	220		
R-63AS	38.95	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	--	0.34	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AS	38.51	--	05/01/13	--	--	--	--	--	--	--	--	--	--	--	--	0.40	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AS	38.01	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.90	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AS	37.61	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.54	<1.0	<1.0	<1.0	<10	--	0.64	-115	540	--	--	7.7	460	1.6	10	<0.25	170		
R-63AS	37.46	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	--	0.63	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AS	39.24	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.63	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AS	40.32	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.31	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AS	41.11	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.74	-109	360	--	--	5.2	140	3.4	8.7	<0.25	300		
R-63AD	39.69	--	02/07/12	--	--	--	--	--	--	--	--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AD	39.98	--	04/25/12	--	--	--	--	--	--	--	--	--	--	--	--	0.37	--	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-63AD	39.54	--	08/07/12	--	--	--	--	--	--	--	--	--	--	--	0.25	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AD	39.06	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.21	-87	350	--	--	5.4	<10	4.4	<0.050	0.39	250	
R-63AD	38.89	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	0.62	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AD	38.50	--	05/01/13	--	--	--	--	--	--	--	--	--	--	--	0.41	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AD	37.96	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	0.72	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AD	37.59	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.53	-87	360	--	--	5.7	<10	1.8	<0.050	0.39	240	
R-63AD	37.55	--	02/12/14	--	--	--	--	--	--	--	--	--	--	--	0.64	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AD	39.19	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.25	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AD	40.44	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.39	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-63AD	41.57	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.89	-120	310	--	--	4.7	<10	1.4	<0.050	0.28	240	
R-64AS	39.40	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.06	-125	350	--	--	5.9	16	3.8	7.6	<0.25	240	
R-64AS	39.27	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.27	-78	360	--	--	5.4	17	2.0	6.5	<0.25	250	
R-64AS	38.59	--	08/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.24	-130	340	--	--	5.3	18	3.6	5.8	<0.25	230	
R-64AS	38.06	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	-103	350	--	--	5.7	24	4.2	3.9	<0.25	220	
R-64AS	37.85	--	02/20/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.51	-39	370	--	--	5.8	27	4.2	5.7	<0.25	270	
R-64AS	37.24	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.53	<1.0	<1.0	<1.0	<10	--	0.56	-115	360	--	--	5.0	36	4.6	4.0	<0.25	240	
R-64AS	36.68	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.53	-95	420	--	--	4.6	50	3.4	5.8	<0.25	240	
R-64AS	36.31	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.68	-103	390	--	--	4.8	40	2.2	4.0	<0.25	250	
R-64AS	36.46	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.63	-112	340	--	--	5.9	37	2.8	7.0	<0.25	240	
R-64AS	38.49	--	05/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.23	-13	190	--	--	1.3	<10	0.0	<0.050	<0.25	66	
R-64AS	39.76	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.50	-81	320	--	--	4.9	84	3.6	4.9	<0.25	260	
R-64AS (DS#5)	--	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-64AS
R-64AS	40.67	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	-66	340	--	--	5.2	110	1.0	4.4	<0.25	190	
R-64AD	39.32	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.11	-76	320	--	--	5.2	<10	0.6	<0.050	0.26	240	
R-64AD	39.09	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.52	<1.0	<1.0	<1.0	<10	--	0.28	-77	340	--	--	5.1	<10	1.6	<0.050	<0.25	250	
R-64AD	38.33	--	08/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	-68	320	--	--	4.9	<10	1.4	<0.050	<0.25	230	
R-64AD	37.86	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	-59	320	--	--	6.2	<10	1.4	<0.050	<0.25	220	

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (Fe ²⁺)-Field mg/L	Iron, Ferrous (Fe ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-64AD (DS#17)	--	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-64AD
R-64AD	37.82	--	02/20/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.34	-3	330	--	--	5.2	<10	0.0	<0.050	0.27	260	
R-64AD	36.97	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.52	<1.0	<1.0	<1.0	<10	--	0.55	-55	330	--	--	4.7	<10	1.8	<0.050	<0.25	240	
R-64AD	36.42	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.50	-47	340	--	--	4.5	22	1.8	<0.050	0.36	230	
R-64AD (DS#3)	--	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-64AD
R-64AD	36.15	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.56	-70	340	--	--	4.8	<10	2.0	<0.050	<0.25	220	
R-64AD	36.36	--	02/12/14	<0.50	<0.50	<0.50	<0.50	0.53	0.52	<0.50	<1.0	<1.0	<1.0	<10	--	0.72	-35	290	--	--	5.6	17	1.8	<0.050	<0.25	210	
R-64AD (DS#10)	--	--	02/12/14	<0.50	<0.50	0.58	0.56	0.59	1.3	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-64AD
R-64AD	38.37	--	05/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.37	-25	290	--	--	4.8	<10	0.0	<0.050	0.26	210	
R-64AD	39.25	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.80	-75	290	--	--	4.8	<10	1.2	<0.050	0.35	210	
R-64AD	39.68	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.20	-54	300	--	--	4.6	<10	0.0	<0.050	0.35	210	
R-64FS	39.55	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.06	-69	220	--	--	1.9	64	0.0	<0.050	<0.25	72	
R-64FS	39.35	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	-9	210	--	--	1.5	72	0.2	<0.050	<0.25	74	
R-64FS	38.67	--	08/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	-99	210	--	--	2.1	140	0.0	<0.20	<0.25	66	
R-64FS (DS#5)	--	--	08/08/12	<0.50	0.72 L	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-64FS
R-64FS	38.16	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	-16	220	--	--	3.2	150	0.0	<0.050	<0.25	65	
R-64FS	38.25	--	02/20/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.89	16	220	--	--	1.8	39	0.0	<0.050	<0.25	58	
R-64FS	37.41	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.59	72	210	--	--	1.8	81	0.0	<0.050	<0.25	65	
R-64FS	37.01	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.71	63	220	--	--	1.4	160	0.0	<0.050	<0.25	65	
R-64FS	35.54	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.51	92	220	--	--	1.4	52	0.0	<0.050	<0.25	67	
R-64FS	36.73	--	02/12/14	<0.50	<0.50	<0.50	0.54	0.62	1.2	<0.50	<1.0	<1.0	<1.0	<10	--	0.68	66	200	--	--	1.9	<10	0.0	<0.050	<0.25	65	
R-64FS	37.96	--	05/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.52	-27	190	--	--	3.9	57	0.0	<0.050	<0.25	61	
R-64FS	39.30	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.93	-52	200	--	--	1.4	97	1.0	<0.050	<0.25	60	
R-64FS	39.14	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	154	200	--	--	1.7	140	0.0	<0.050	<0.25	59	
R-64FS (DS#10)	--	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-64FS
R-65AS	38.20	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.26	-84	350	--	--	5.8	110	3.0	11	<0.25	150	
R-65AS	37.87	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.24	-77	300	--	--	5.8	52	2.8	13	<0.25	190	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-65AS (DS#5)	--	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-65AS
R-65AS	36.65	--	08/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.27	-129	420	--	--	6.9	430	2.0	9.2	<0.25	150	
R-65AS	36.01	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.42	-95	380	--	--	9.5	190	3.8	4.5	<0.25	160	
R-65AS	35.24	--	02/20/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.27	-91	360	--	--	5.2	160	5.4	9.1	<0.25	260	
R-65AS	33.92	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.50	-99	370	--	--	3.4	160	5.4	5.1	<0.25	240	
R-65AS	33.11	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.54	-139	380	--	--	7.8	260	--	8.6	<0.25	230	
R-65AS	--	--	11/11/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample	
R-65AS	33.98	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	-72	340	--	--	9.4	400	2.6	7.0	<0.25	260	
R-65AS	37.19	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.61	-74	320	--	--	4.8	470	5.4	5.7	<0.25	230	
R-65AS (DS#13)	--	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-65AS
R-65AS	38.72	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	-106	320	--	--	5.2	260	0.8	7.5	<0.25	230	
R-65AS	39.52	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.16	-127	310	--	--	4.7	260	2.4	10	<0.25	210	
R-65AD	38.54	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.0	<1.0	<1.0	<1.0	<10	--	0.21	-120	360	--	--	4.1	66	0.6	1.1	<0.25	250	
R-65AD	38.30	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.0	<1.0	<1.0	<1.0	<10	--	0.21	-106	330	--	--	4.7	49	3.0	3.0	<0.25	260	
R-65AD	37.25	--	08/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	<10	--	0.29	-114	350	--	--	4.7	53	2.6	2.5	<0.25	250	
R-65AD	36.78	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<1.0	<1.0	<1.0	<10	--	0.45	-118	360	--	--	7.4	39	2.4	2.2	<0.25	230	
R-65AD	35.70	--	02/20/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.77	<1.0	<1.0	<1.0	<10	--	0.37	-72	340	--	--	4.8	34	0.8	2.9	<0.25	260	
R-65AD	35.30	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.39	-117	330	--	--	4.9	49	2.2	2.1	<0.25	240	
R-65AD	33.91	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	-100	340	--	--	4.0	76	2.0	2.5	<0.25	220	
R-65AD	33.37	--	11/11/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	<1.0	<1.0	<1.0	<10	--	0.46	-101	340	--	--	5.2	99	0.0	2.0	<0.25	230	
R-65AD	35.03	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.10	-106	290	--	--	6.3	90	0.0	2.5	<0.25	220	
R-65AD	36.72	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.51	-101	280	--	--	4.7	88	3.2	1.7	<0.25	210	
R-65AD	38.12	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.44	-119	300	--	--	4.2	74	2.2	2.0	<0.25	220	
R-65AD	38.20	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.76	-105	280	--	--	4.4	70	1.2	1.8	<0.25	220	
R-65AD (DS#5)	--	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-65AD
R-65FS	38.46	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.16	-83	260	--	--	3.2	460	1.6	0.16	<0.25	150	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-65FS	38.12	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	-42	270	--	--	3.2	520	1.0	0.21	<0.25	160	
R-65FS	37.00	--	08/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.56	<1.0	<1.0	<1.0	<10	--	0.26	-60	260	--	--	2.8	42	1.8	<0.050	<0.25	150	
R-65FS	36.40	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.87	<1.0	<1.0	<1.0	<10	--	0.42	-48	280	--	--	7.0	50	1.6	0.083	<0.25	160	
R-65FS	35.82	--	02/20/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.76	1.2	<1.0	<1.0	<10	--	0.84	-19	270	--	--	3.5	74	1.4	0.11	<0.25	180	
R-65FS (DS#13)	--	--	02/20/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.68	1.1	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-65FS
R-65FS	34.61	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.48	-57	240	--	--	3.2	71	1.6	0.066	<0.25	150	
R-65FS	34.00	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.76	<1.0	<1.0	<1.0	<10	--	1.04	-61	270	--	--	2.7	12	1.6	0.10	<0.25	160	
R-65FS	33.48	--	11/11/13	<0.50	0.55*	<0.50	<0.50	<0.50	<0.50	1.0	<1.0	<1.0	<1.0	<10	--	0.28	-88	260	--	--	3.0	240	0.8	0.42	<0.25	170	
R-65FS	34.13	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	0.12	-103	240	--	--	4.9	200	1.0	0.33	<0.25	160	
R-65FS (DS#15)	--	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.85	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-65FS
R-65FS	36.78	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<10	--	0.59	-78	270	--	--	3.2	130	1.4	0.57	<0.25	180	
R-65FS	38.70	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.39	-84	260	--	--	4.4	1,400	1.8	0.41	<0.25	170	
R-65FS	39.30	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<1.0	<1.0	<1.0	<10	--	0.82	-69	300	--	--	3.1	30	1.4	0.80	<0.25	190	
R-66AS	38.02	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.58	<1.0	<1.0	<1.0	<10	--	0.28	-50	400	--	--	8.1	98	3.2	4.1	<0.25	130	
R-66AS	37.53	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	-49	390	--	--	6.0	72	3.2	4.4	<0.25	150	
R-66AS	36.19	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.43	-56	430	--	--	5.0	140	2.0	2.2	<0.25	100	
R-66AS	35.55	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.59	<1.0	<1.0	<1.0	<10	--	0.70	-13	400	--	--	5.6	140	2.8	2.6	<0.25	130	
R-66AS	34.66	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	8	370	--	--	6.1	210	4.0	4.3	<0.25	150	
R-66AS (DS#11)	--	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-66AS
R-66AS	33.02	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.58	-56	400	--	--	6.2	400	1.6	3.9	<0.25	130	
R-66AS	32.16	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.89	-79	440	--	--	5.6	330	1.6	9.3	<0.25	180	
R-66AS	--	--	11/11/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-66AS	33.56	--	02/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.66	<1.0	<1.0	<1.0	<10	--	0.60	-81	410	--	--	6.4	240	3.8	9.1	<0.25	230	
R-66AS	37.07	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.03	-94	320	--	--	5.1	370	2.6	7.5	<0.25	240	
R-66AS	38.39	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.64	<1.0	<1.0	<1.0	<10	--	1.60	-109	400	--	--	8.7	370	1.4	6.6	<0.25	200	
R-66AS (DS#9)	--	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-66AS

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-66AS	39.42	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.63	<1.0	<1.0	<1.0	<1.0	--	1.02	-94	480	--	--	6.2	470	1.6	5.5	<0.25	130	
R-66AM	38.05	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<1.0	<1.0	<1.0	<1.0	--	0.18	-111	360	--	--	8.1	<10	3.6	3.7	<0.25	240	
R-66AM	37.52	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	<1.0	<1.0	<1.0	<1.0	--	0.23	-97	340	--	--	5.2	<10	2.8	6.3	<0.25	250	
R-66AM	36.20	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<1.0	--	0.22	-87	350	--	--	3.9	12	2.4	5.6	<0.25	240	
R-66AM	35.57	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<1.0	--	0.41	-88	330	--	--	5.2	<10	5.4	0.52	<0.25	220	
R-66AM (DS#14)	--	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.84	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-66AM
R-66AM	34.69	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<1.0	--	0.41	-66	320	--	--	5.3	<10	4.2	0.080	0.30	260	
R-66AM	33.03	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.54	<1.0	<1.0	<1.0	<1.0	--	0.26	-102	350	--	--	5.4	38	3.0	5.6	<0.25	230	
R-66AM	32.18	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.66	-108	340	--	--	5.6	28	1.6	1.2	<0.25	240	
R-66AM	31.15	--	11/11/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.37	-62	320	--	--	29	71	2.4	2.8	<0.25	230	
R-66AM	33.58	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	1.44	-150	280	--	--	6.5	43	1.6	1.7	<0.25	220	
R-66AM	36.99	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	1.11	-108	270	--	--	5.3	<10	2.0	0.054	<0.25	220	
R-66AM	38.37	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	1.76	-118	250	--	--	5.3	<10	0.0	<0.050	0.40	220	
R-66AM	39.62	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.92	-115	330	--	--	4.9	<10	0.0	<0.050	0.47	220	
R-66AD	38.02	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.16	-117	320	--	--	5.4	<10	3.8	<0.050	0.30	250	
R-66AD	37.53	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.19	-99	340	--	--	5.1	<10	3.6	<0.050	0.36	260	
R-66AD	36.22	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.88	<1.0	<1.0	<1.0	<1.0	--	0.21	-115	320	--	--	4.0	<10	2.8	<0.050	0.25	250	
R-66AD (DS#4)	--	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.87	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-66AD
R-66AD	35.61	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.46	-88	340	--	--	4.9	<10	3.8	<0.050	<0.25	240	
R-66AD	34.71	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<1.0	--	0.51	-63	340	--	--	5.3	<10	5.4	<0.050	0.31	280	
R-66AD	33.09	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.59	<1.0	<1.0	<1.0	<1.0	--	0.26	-106	350	--	--	5.2	<10	4.0	<0.050	0.29	260	
R-66AD	32.19	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.69	-108	330	--	--	4.3	<10	3.4	<0.050	0.34	250	
R-66AD	31.20	--	11/11/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.35	-68	330	--	--	6.7	<10	--	0.076	0.38	250	
R-66AD (DS#19)	--	--	11/11/13	<0.50	1.5*	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-66AD
R-66AD	33.64	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	<1.0	--	0.58	-140	310	--	--	6.2	<10	1.0	<0.050	<0.25	240	
R-66AD (DS#12)	--	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-66AD
R-66AD	37.09	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	1.74	-102	260	--	--	4.8	<10	1.6	0.053	<0.25	230	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-66AD	38.41	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.70	-112	250	--	--	6.3	<10	0.0	<0.050	0.46	230	
R-66AD	39.58	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	-112	250	--	--	4.6	<10	0.0	<0.050	0.55	230	
R-66FS	38.34	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.13	-4	210	--	--	3.3	<10	0.4	<0.050	<0.25	120	
R-66FS	37.92	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.10	-81	210	--	--	2.3	<10	0.2	<0.050	<0.25	140	
R-66FS (DS#3)	--	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-66FS
R-66FS	36.68	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	-112	200	--	--	2.0	<10	0.0	<0.050	<0.25	140	
R-66FS	36.09	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.14	15	210	--	--	2.0	<10	0.0	<0.050	0.32	140	
R-66FS	35.27	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	<0.50	<1.0	<1.0	<1.0	<10	--	0.30	25	190	--	--	2.3	<10	0.0	<0.050	0.28	140	
R-66FS	33.79	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.31	-116	210	--	--	1.7	<10	0.0	<0.050	0.26	120	
R-66FS (DS#5)	--	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-66FS
R-66FS	33.03	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	-67	200	--	--	1.8	<10	0.0	<0.050	0.27	130	
R-66FS	32.55	--	11/11/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	-25	200	--	--	1.8	<10	0.0	<0.050	<0.25	140	
R-66FS	34.08	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	-72	180	--	--	3.0	<10	0.0	<0.050	<0.25	130	
R-66FS	37.21	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.63	-27	170	--	--	1.9	<10	0.0	<0.050	<0.25	130	
R-66FS	38.71	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.18	-120	180	--	--	4.5	<10	0.0	<0.050	0.34	140	
R-66FS	39.49	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.85	-89	170	--	--	1.9	10	0.0	<0.050	0.63	140	
R-67AS	37.91	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	<1.0	<1.0	<1.0	<10	--	0.21	-85	460	--	--	7.5	21	2.8	6.0	<0.25	180	
R-67AS	37.33	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	<1.0	<1.0	<1.0	<10	--	0.26	-92	480	--	--	5.7	25	3.4	7.3	<0.25	170	
R-67AS	35.78	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<1.0	<1.0	<1.0	<10	--	0.31	-93	410	--	--	5.8	24	1.8	5.7	<0.25	180	
R-67AS	35.16	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	<1.0	<1.0	<1.0	<10	--	0.29	-80	430	--	--	8.2	58	4.4	7.6	<0.25	150	
R-67AS	34.13	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.29	-42	270	--	--	6.0	59	3.8	8.2	<0.25	300	
R-67AS	--	--	05/01/13	--	--	--	--	--	--	--	--	--	--	--	--	0.46	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-67AS	--	--	08/01/13	--	--	--	--	--	--	--	--	--	--	--	--	0.80	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-67AS	--	29.48	11/11/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
R-67AS	33.39	--	02/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	<1.0	<1.0	<1.0	<10	--	0.54	-75	400	--	--	6.3	110	2.6	1.5	<0.25	210	
R-67AS	37.03	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.70	<1.0	<1.0	<1.0	<10	--	1.45	-42	370	--	--	5.9	160	2.8	4.8	<0.25	220	

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Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
R-67AS	38.36	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.78	<1.0	<1.0	<1.0	<10	--	1.58	-78	350	--	--	5.5	180	3.4	3.8	<0.25	230		
R-67AS	39.42	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.0	<1.0	<1.0	<1.0	<10	--	0.25	-70	500	--	--	6.4	430	1.2	3.0	<0.25	130		
R-67AM	37.98	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.16	-101	360	--	--	8.9	<10	2.4	<0.050	0.37	250		
R-67AM	37.38	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	5.9	<1.0	<1.0	<1.0	<10	--	0.26	-100	360	--	--	5.1	12	3.2	4.9	<0.25	260		
R-67AM	35.80	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.0	<1.0	<1.0	<1.0	<10	--	0.22	-102	340	--	--	3.7	19	3.2	5.1	<0.25	260		
R-67AM	35.17	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	5.5	<1.0	<1.0	<1.0	<10	--	0.36	-79	670	--	--	4.8	<10	4.6	0.69	<0.25	250		
R-67AM	34.16	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.77	1.7	<1.0	<1.0	<1.0	--	0.55	-64	360	--	--	5.3	<10	3.4	1.3	<0.25	270		
R-67AM	32.32	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	<1.0	<1.0	<1.0	<10	--	0.34	-113	370	--	--	5.2	17	3.2	4.7	<0.25	260		
R-67AM	31.51	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.62	<1.0	<1.0	<1.0	<10	--	0.88	-125	360	--	--	5.3	12	2.4	0.46	<0.25	250		
R-67AM (DS#5)	--	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.67	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-67AM
R-67AM	30.27	--	11/11/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.66	<1.0	<1.0	<1.0	<10	--	0.48	-86	340	--	--	4.8	35	0.6	4.4	<0.25	240		
R-67AM	33.36	--	02/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.58	<1.0	<1.0	<1.0	<10	--	0.57	-107	290	--	--	6.5	34	1.6	1.5	<0.25	230		
R-67AM	37.01	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.52	<1.0	<1.0	<1.0	<10	--	1.63	-110	290	--	--	5.5	<10	2.2	0.062	<0.25	220		
R-67AM	38.35	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.52	<1.0	<1.0	<1.0	<10	--	1.95	-110	270	--	--	5.3	<10	0.0	<0.050	0.46	220		
R-67AM	39.41	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	-114	260	--	--	4.7	<10	0.0	<0.050	0.50	220		
R-67AD	37.97	--	02/07/12	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.15	-112	210	--	--	49	36	1.6	0.17	<0.25	130		
R-67AD	37.39	--	04/24/12	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.20	-107	250	--	--	31	25	2.6	0.36	<0.25	160		
R-67AD	35.83	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.74	<1.0	<1.0	<1.0	<10	--	0.18	-113	300	--	--	7.8	<10	0.0	<0.050	<0.25	210		
R-67AD	35.22	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.27	-76	310	--	--	7.5	<10	4.0	<0.050	<0.25	220		
R-67AD	34.29	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	1.0	<0.50	<1.0	<1.0	<1.0	<10	--	0.18	-66	300	--	--	7.5	<10	0.0	<0.050	0.37	270		
R-67AD	32.41	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	-100	330	--	--	6.5	<10	4.4	<0.050	0.32	250		
R-67AD	31.58	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.84	-102	330	--	--	5.0	<10	2.0	<0.050	0.39	250		
R-67AD	30.52	--	11/11/13	<0.50	0.57*	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.38	-27	320	--	--	10	<10	0.0	<0.050	0.39	250		
R-67AD	33.44	--	02/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.51	-103	280	--	--	8.4	<10	0.0	<0.050	<0.25	250		
R-67AD	36.92	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.98	<1.0	<1.0	<1.0	<10	--	1.43	-76	310	--	--	5.4	<10	1.4	<0.050	<0.25	240		
R-67AD	38.39	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.72	-105	300	--	--	5.5	<10	0.0	<0.050	0.27	250		
R-67AD	39.41	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.35	-114	290	--	--	4.9	<10	0.0	<0.050	0.30	250		

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-67FS	37.98	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.09	-98	160	--	--	3.8	370	0.8	<0.050	<0.25	140	
R-67FS (DS#5)	--	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-67FS
R-67FS	37.41	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.17	-90	160	--	--	2.7	300	0.0	<0.050	<0.25	140	
R-67FS	35.85	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.15	-118	160	--	--	1.3	15	0.0	<0.050	<0.25	140	
R-67FS	35.24	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.19	5	150	--	--	1.6	24	0.0	<0.050	<0.25	140	
R-67FS	34.26	--	02/19/13	<0.50	<0.50	0.62	<0.50	0.58	1.9	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	-51	160	--	--	1.7	81	1.8	<0.050	<0.25	160	
R-67FS	32.43	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.52	-19	170	--	--	2.1	46	0.0	<0.050	<0.25	150	
R-67FS	31.66	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.66	-90	170	--	--	1.3	40	0.0	<0.050	<0.25	130	
R-67FS	30.69	--	11/11/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.47	-88	160	--	--	6.7	<10	0.0	<0.050	<0.25	150	
R-67FS	32.76	--	02/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.58	-112	150	--	--	3.0	68	0.0	<0.050	<0.25	140	
R-67FS	36.20	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.59	-12	150	--	--	1.7	<10	0.0	<0.050	<0.25	140	
R-67FS (DS#12)	--	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-67FS
R-67FS	38.44	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.66	-109	150	--	--	2.2	<10	0.0	<0.050	<0.25	140	
R-67FS	39.42	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.43	-92	150	--	--	1.1	840	0.0	<0.050	<0.25	150	
R-68AS	37.88	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.3	<1.0	<1.0	<1.0	<10	--	0.56	-79	490	--	--	7.7	23	3.8	14	<0.25	190	
R-68AS	37.11	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.0	<1.0	<1.0	<1.0	<10	--	0.88	-106	470	--	--	6.3	41	3.0	13	<0.25	190	
R-68AS (DS#4)	--	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.6	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-68AS
R-68AS	35.37	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	5.5	<1.0	<1.0	<1.0	<10	--	0.31	-96	480	--	--	7.6	28	7.2	13	<0.25	180	
R-68AS	34.56	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	<1.0	<1.0	<1.0	<10	--	0.91	171	410	--	--	5.2	30	2.4	1.9	<0.25	230	
R-68AS (DS#18)	--	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.7	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-68AS
R-68AS	33.14	--	02/26/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.1	<1.0	<1.0	<1.0	<10	--	0.71	61	560	--	--	12	12	1.2	11	<0.25	190	
R-68AS	--	--	05/01/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-68AS	--	--	08/01/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-68AS	--	--	11/01/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-68AS	33.16	--	02/10/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<10	--	0.61	128	120	--	--	9.2	510	2.2	9.4	<0.25	970	
R-68AS	36.92	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.41	127	37	--	--	2.4	45	2.2	1.2	<0.25	350	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-68AS	38.37	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	<1.0	<1.0	<1.0	<10	--	0.39	44	81	--	--	3.5	40	0.4	0.39	<0.25	400	
R-68AS (DS#8)	--	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-68AS
R-68AS	39.40	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.62	<1.0	<1.0	<1.0	<10	--	0.42	-21	250	--	--	3.9	52	1.6	1.7	<0.25	250	
R-68AM	37.87	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<10	--	0.19	-82	460	--	--	7.4	<10	2.8	<0.050	<0.25	220	
R-68AM	37.11	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	<1.0	<1.0	<1.0	<10	--	0.49	-71	460	--	--	5.7	13	4.0	3.1	<0.25	230	
R-68AM	35.12	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<1.0	<1.0	<1.0	<10	--	0.25	-78	410	--	--	4.2	18	4.3	4.2	<0.25	220	
R-68AM	34.37	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<1.0	<1.0	<1.0	<10	--	0.53	-53	360	--	--	7.3	22	3.6	3.2	<0.25	200	
R-68AM	33.09	--	02/25/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	<1.0	<1.0	<1.0	<10	--	0.62	-33	370	--	--	4.6	26	0.0	3.8	<0.25	200	
R-68AM	31.27	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.53	<1.0	<1.0	<1.0	<10	--	0.22	-94	370	--	--	5.9	42	2.8	0.93	<0.25	160	
R-68AM	30.82	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.63	-96	390	--	--	6.2	51	5.0	0.12	<0.25	150	
R-68AM	29.21	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	<1.0	<1.0	<1.0	<10	--	0.53	-87	400	--	--	4.8	57	0.0	<0.050	<0.25	150	
R-68AM	33.18	--	02/10/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.54	<1.0	<1.0	<1.0	<10	--	0.61	-147	350	--	--	6.5	27	2.2	0.35	<0.25	180	
R-68AM	36.91	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.52	-89	310	--	--	5.7	<10	0.0	0.062	0.33	200	
R-68AM	38.28	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	-105	270	--	--	5.5	<10	0.0	<0.050	0.49	200	
R-68AM	39.38	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.39	-96	280	--	--	4.9	<10	0.0	<0.050	0.50	210	
R-68AD	37.86	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.15	-78	350	--	--	6.6	<10	2.0	<0.050	0.48	240	
R-68AD	37.04	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.34	-109	340	--	--	5.0	<10	0.0	<0.050	0.46	250	
R-68AD	34.92	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.18	-99	340	--	--	3.7	<10	4.1	<0.050	0.45	240	
R-68AD	34.17	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.76	-58	330	--	--	6.5	<10	0.2	<0.050	0.39	230	
R-68AD	32.82	--	02/26/13	<0.50	<0.50	2.2	6.0	0.84	4.6	<0.50	<1.0	<1.0	<1.0	<10	--	0.86	-37	350	--	--	5.2	<10	0.8	<0.050	0.42	260	
R-68AD	31.03	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.35	-107	370	--	--	4.9	<10	2.5	<0.050	0.31	260	
R-68AD	30.74	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.83	<1.0	<1.0	<1.0	<10	--	0.70	113	360	--	--	7.6	<10	0.0	<0.050	<0.25	240	
R-68AD (DS#7)	--	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-68AD
R-68AD	28.93	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<10	--	0.57	-101	350	--	--	4.7	<10	0.0	<0.050	0.26	240	
R-68AD	33.30	--	02/10/14	<0.50	<0.50	<0.50	0.51	<0.50	<0.50	0.77	<1.0	<1.0	<1.0	<10	--	0.75	-135	280	--	--	6.2	<10	0.0	<0.050	<0.25	200	
R-68AD (DS#8)	--	--	02/10/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.62	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-68AD
R-68AD	36.94	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.28	-122	270	--	--	5.2	<10	2.0	<0.050	0.42	200	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-68AD	38.28	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	-111	280	--	--	7.3	<10	0.0	<0.050	0.48	200	
R-68AD	39.27	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	-110	270	--	--	4.5	<10	0.0	<0.050	0.49	200	
R-68FS	37.97	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	-112	170	--	--	1.7	150	1.2	<0.050	<0.25	140	
R-68FS	37.15	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.27	-108	180	--	--	1.4	63	0.0	<0.050	<0.25	140	
R-68FS	35.23	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.13	-107	160	--	--	1.0	77	1.0	<0.050	<0.25	140	
R-68FS	34.36	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.48	70	160	--	--	<1.0	120	0.2	<0.050	<0.25	140	
R-68FS	32.86	--	02/25/13	<0.50	<0.50	2.6	9.8	1.6	10	<0.50	<1.0	<1.0	<1.0	<10	--	0.72	-62	170	--	--	1.2	36	0.0	<0.050	<0.25	140	
R-68FS (DS#19)	--	--	02/25/13	<0.50	<0.50	2.9	11	1.7	11	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-68FS
R-68FS	31.23	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	-78	180	--	--	<1.0	160	0.0	<0.050	<0.25	140	
R-68FS	30.71	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.70	-135	170	--	--	1.9	130	0.0	<0.050	<0.25	140	
R-68FS	29.20	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.66	-96	190	--	--	1.2	49	0.0	<0.050	<0.25	150	
R-68FS	33.39	--	02/10/14	<0.50	<0.50	1.1	2.0	<0.50	0.66	<0.50	<1.0	<1.0	<1.0	<10	--	0.46	118	170	--	--	1.8	56	0.0	<0.050	0.66	150	
R-68FS	36.99	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.83	-56	150	--	--	1.9	<10	0.0	<0.050	<0.25	140	
R-68FS	38.35	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.63	-10	150	--	--	1.5	150	0.0	<0.050	<0.25	140	
R-68FS	39.38	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	39	140	--	--	1.1	290	0.0	<0.050	<0.25	140	
R-69AS	37.49	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.14	-10	360	--	--	3.9	<10	0.0	<0.050	6.5	320	
R-69AS (DS#4)	--	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-69AS
R-69AS	37.08	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.45	-81	360	--	--	3.2	<10	0.2	<0.050	5.7	330	
R-69AS	35.13	--	08/10/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.81	<1.0	<1.0	<1.0	<10	--	0.25	127	330	--	--	2.6	<10	0.0	<0.050	3.5	330	
R-69AS (DS#8)	--	--	08/10/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.90	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-69AS
R-69AS	33.92	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.94	<1.0	<1.0	<1.0	<10	--	1.24	132	390	--	--	12	<10	0.0	<0.050	1.6	330	
R-69AS	32.83	--	02/26/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.87	90	520	--	--	6.2	<10	0.0	<0.050	<0.25	240	
R-69AS	--	--	05/02/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-69AS	--	--	08/01/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-69AS	--	--	11/01/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-69AS	32.88	--	02/10/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	97	--	0.42	126	430	--	--	4.3	<10	2.2	<0.050	0.43	390	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
R-69AS	36.88	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.81	209	420	--	--	5.0	11	2.2	<0.050	<0.25	270		
R-69AS	38.28	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.74	<1.0	<1.0	<1.0	<10	--	0.31	-55	400	--	--	4.3	13	0.0	<0.050	<0.25	330		
R-69AS	39.33	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.65	<1.0	<1.0	<1.0	<10	--	0.27	104	430	--	--	4.2	<10	0.0	<0.050	<0.25	220		
R-69AM	37.47	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.64	<1.0	<1.0	<1.0	<10	--	0.19	-37	440	--	--	5.3	<10	1.6	<0.050	1.0	300		
R-69AM	37.07	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	200	--	0.44	-92	460	--	--	5.1	<10	1.6	0.31	<0.25	310		
R-69AM	34.12	--	08/10/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.13	-90	370	--	--	2.9	<10	2.0	<0.050	0.58	350		
R-69AM	33.24	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.7	<1.0	<1.0	<1.0	790	--	0.50	8	480	--	--	16	15	1.8	0.57	<0.25	220		
R-69AM (DS#22)	--	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	<1.0	<1.0	<1.0	780	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-69AM
R-69AM	32.22	--	02/26/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	640	--	0.72	201	500	--	--	7.2	16	1.2	1.4	<0.25	230		
R-69AM	30.47	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	200	--	0.28	-101	490	--	--	5.2	29	2.1	0.48	<0.25	190		
R-69AM	29.84	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	29	--	0.56	-92	520	--	--	7.2	<10	1.8	<0.050	0.75	160		
R-69AM	28.68	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	0.91	<1.0	<1.0	<1.0	25	--	0.54	-99	480	--	--	4.9	<10	0.0	<0.050	0.62	180		
R-69AM	33.37	--	02/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.72	<1.0	<1.0	<1.0	68	--	0.66	-87	370	--	--	6.1	15	0.0	<0.050	<0.25	210		
R-69AM	35.99	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	16	--	1.49	-22	380	--	--	4.8	<10	0.8	<0.050	0.52	210		
R-69AM	38.32	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	-101	360	--	--	5.1	<10	0.0	<0.050	0.62	210		
R-69AM	39.14	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	-93	360	--	--	3.9	<10	0.0	<0.050	0.63	220		
R-69AD	37.47	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.14	-6	270	--	--	4.1	<10	2.8	<0.050	<0.25	210		
R-69AD	37.03	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	20	--	0.40	-85	280	--	--	3.2	<10	2.2	<0.050	<0.25	230		
R-69AD	34.17	--	08/10/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.19	-72	260	--	--	2.1	<10	3.0	<0.050	<0.25	230		
R-69AD	33.37	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.59	-3	260	--	--	2.1	<10	1.6	<0.050	<0.25	230		
R-69AD	32.43	--	02/26/13	<0.50	<0.50	3.6	9.2	1.2	6.7	<0.50	<1.0	<1.0	<1.0	<10	--	0.68	81	250	--	--	3.6	<10	2.0	<0.050	<0.25	240		
R-69AD	30.54	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.17	-97	250	--	--	2.5	<10	2.6	<0.050	<0.25	240		
R-69AD (DS#6)	--	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-69AD
R-69AD	30.22	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	-83	260	--	--	3.8	<10	2.5	<0.050	<0.25	250		
R-69AD	28.51	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.71	-77	470	--	--	2.9	<10	0.0	<0.050	0.51	270		
R-69AD	33.40	--	02/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	-77	210	--	--	2.9	<10	0.0	<0.050	0.31	300		
R-69AD	36.90	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.61	-87	260	--	--	3.9	<10	1.6	<0.050	<0.25	300		

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-69AD (DS#10)	--	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-69AD
R-69AD	38.23	--	07/31/14	<0.50	0.53 CL	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	-90	250	--	--	6.9	<10	0.0	<0.050	<0.25	310	
R-69AD	39.37	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.37	-83	250	--	--	3.1	<10	0.0	<0.050	0.57	310	
R-69FS	38.32	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.11	52	99	--	--	1.4	<10	0.7	<0.050	<0.25	170	
R-69FS	37.70	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	-70	100	--	--	2.7	<10	0.0	<0.050	<0.25	180	
R-69FS	35.92	--	08/10/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	-50	90	--	--	<1.0	<10	0.3	<0.050	<0.25	170	
R-69FS	35.03	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.44	116	99	--	--	2.0	<10	0.0	<0.050	<0.25	170	
R-69FS	34.21	--	02/26/13	<0.50	<0.50	5.0	12	1.7	10	<0.50	<1.0	<1.0	<1.0	<10	--	0.48	129	94	--	--	2.3	<10	0.0	<0.050	<0.25	180	
R-69FS	32.63	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.21	-58	99	--	--	<1.0	<10	0.0	<0.050	<0.25	190	
R-69FS	31.94	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.57	-88	97	--	--	1.2	<10	0.0	<0.050	<0.25	190	
R-69FS	30.99	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.67	-39	110	--	--	<1.0	10	0.0	<0.050	<0.25	190	
R-69FS	34.38	--	02/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	120	85	--	--	2.4	84	0.0	<0.050	<0.25	190	
R-69FS (DS#9)	--	--	02/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-69FS
R-69FS	37.61	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.64	81	83	--	--	1.8	<10	0.0	<0.050	<0.25	170	
R-69FS	38.98	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.26	-52	86	--	--	<1.0	<10	0.0	<0.050	<0.25	190	
R-69FS	39.84	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.31	-90	48	--	--	<1.0	<10	0.0	<0.050	<0.25	190	
R-70AS	39.34	--	02/07/12	--	--	--	--	--	--	--	--	--	--	--	--	0.80	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AS	38.80	--	04/25/12	--	--	--	--	--	--	--	--	--	--	--	--	0.65	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AS	37.71	--	08/10/12	--	--	--	--	--	--	--	--	--	--	--	--	0.17	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AS	37.05	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.89	88	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AS	36.06	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	--	0.83	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AS	35.24	--	05/02/13	--	--	--	--	--	--	--	--	--	--	--	--	0.42	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AS	34.68	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.83	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AS	34.24	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	41	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AS (DS#8)	--	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-70AS
R-70AS	35.40	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	--	0.58	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AS	37.90	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.24	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-70AS	39.09	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.32	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AS	39.95	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.68	38	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AM	39.24	--	02/07/12	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AM	38.87	--	04/25/12	--	--	--	--	--	--	--	--	--	--	--	0.69	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AM	37.47	--	08/10/12	--	--	--	--	--	--	--	--	--	--	--	0.15	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AM	36.67	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.72	87	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AM	36.09	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	0.62	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AM	34.87	--	05/02/13	--	--	--	--	--	--	--	--	--	--	--	0.19	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AM	34.22	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	0.70	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AM	32.33	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.50	86	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AM (DS#9)	--	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-70AM
R-70AM	34.94	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	0.55	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AM	35.73	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.18	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AM	38.66	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.35	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AM	39.47	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.58	49	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AD	38.66	--	02/07/12	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AD	38.00	--	04/25/12	--	--	--	--	--	--	--	--	--	--	--	0.46	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AD	36.04	--	08/10/12	--	--	--	--	--	--	--	--	--	--	--	0.11	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AD	35.66	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	58	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AD	34.97	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	0.62	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AD	32.89	--	05/02/13	--	--	--	--	--	--	--	--	--	--	--	0.30	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AD	32.23	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	0.78	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AD	31.69	--	11/01/13	<0.50	<0.50	<0.50	0.94	0.50	2.8	<0.50	<1.0	<1.0	<1.0	<10	--	0.49	30	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AD	33.60	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	0.41	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AD	36.36	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	0.20	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AD	38.70	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	0.31	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70AD	39.62	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.69	-47	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters																												
Mission Valley Terminal, San Diego, CA																												
ARCADIS CM010143.0175																												
Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
R-70FS	39.33	--	02/07/12	--	--	--	--	--	--	--	--	--	--	--	--	0.60	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70FS	38.76	--	04/25/12	--	--	--	--	--	--	--	--	--	--	--	--	0.41	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70FS	37.27	--	08/10/12	--	--	--	--	--	--	--	--	--	--	--	--	0.11	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70FS	36.89	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.21	70	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70FS	35.46	--	02/20/13	--	--	--	--	--	--	--	--	--	--	--	--	0.61	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70FS	34.20	--	05/02/13	--	--	--	--	--	--	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70FS	33.53	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	0.77	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70FS	31.96	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.54	103	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70FS	34.00	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	--	0.37	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70FS	38.01	--	05/05/14	--	--	--	--	--	--	--	--	--	--	--	--	0.19	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70FS	39.30	--	07/28/14	--	--	--	--	--	--	--	--	--	--	--	--	0.33	--	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70FS	40.06	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.91	-80	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-70FS (DS#7)	--	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-70FS
R-79AS	33.35	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.17	59	430	--	--	11	<10	0.2	0.79	<0.25	250	--	Gauged Only
R-79AS	32.46	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.79	152	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-79AS (DS#8)	--	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-79AS
R-79AS	32.63	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.58	108	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-79AS	31.64	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.02	-27	220	--	--	3.5	<10	0.2	0.069	<0.25	240	--	Gauged Only
R-79AS	31.40	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.23	71	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-79AS	--	--	05/03/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-79AS	--	--	08/08/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-79AS	--	--	10/30/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample
R-79AS	32.44	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.83	131	--	--	--	--	--	0.0	--	--	--	--	Gauged Only
R-79AS (DS#16)	--	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-79AS
R-79AS	36.91	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.75	<1.0	<1.0	<1.0	<10	--	0.58	-18	--	--	--	--	--	--	--	--	--	--	Gauged Only
R-79AS	38.95	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.29	55	--	--	--	--	--	--	--	--	--	--	Gauged Only

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-79AS	40.78	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.25	237	190	--	--	5.0	<10	0.0	<0.050	34	190	
R-79AS (DS#13)	--	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-79AS
R-79AM	--	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	46	--	--	--	--	--	--	--	--	--	
R-79AM	33.45	--	02/15/12	--	--	--	--	--	--	--	--	--	--	--	0.11	14	400	--	--	5.0	37	0.6	<0.050	<0.25	250		
R-79AM	32.10	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	97	--	--	--	--	--	--	--	--	--	
R-79AM	32.30	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	-13	--	--	--	--	--	--	--	--	--	
R-79AM	31.16	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.91	<1.0	<1.0	<1.0	<10	--	0.28	93	440	--	--	4.2	30	0.2	<0.050	<0.25	250	
R-79AM (DS#3)	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.65	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-79AM
R-79AM	31.25	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	43	--	--	--	--	--	--	--	--	--	
R-79AM	29.85	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	<0.005	0.23	0	420	--	--	4.6	28	0.0	<0.050	<0.25	260	
R-79AM	29.03	--	08/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.71	<1.0	<1.0	<1.0	<10	--	0.45	41	--	--	--	--	--	--	--	--	--	
R-79AM	28.49	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.76	<1.0	<1.0	<1.0	<10	--	0.78	5	410	--	--	4.4	<10	0.0	<0.050	<0.25	270	
R-79AM	32.56	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.0	<1.0	<1.0	<1.0	<10	--	0.80	75	--	--	--	--	0.0	--	--	--	--	
R-79AM	36.90	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	-21	--	--	--	--	--	--	--	--	--	
R-79AM	39.16	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.46	26	--	--	--	--	--	--	--	--	--	
R-79AM	41.03	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.48	14	330	--	--	4.8	<10	0.0	<0.050	<0.25	260	
R-79AD	--	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.14	48	--	--	--	--	--	--	--	--	--	
R-79AD	33.29	--	02/15/12	--	--	--	--	--	--	--	--	--	--	--	0.20	-2	340	--	--	4.6	<10	0.0	<0.050	<0.25	230		
R-79AD	31.80	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.59	122	--	--	--	--	--	--	--	--	--	
R-79AD	32.00	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.31	54	--	--	--	--	--	--	--	--	--	
R-79AD	30.99	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.26	58	320	--	--	5.4	<10	0.0	<0.050	<0.25	230	
R-79AD	30.98	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	0.75	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	74	--	--	--	--	--	--	--	--	--	
R-79AD	29.52	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	68	--	--	--	--	--	--	--	--	--	
R-79AD	28.71	--	08/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	<1.0	<1.0	<1.0	<10	--	0.24	92	--	--	--	--	--	--	--	--	--	
R-79AD	28.10	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.69	33	350	--	--	4.6	<10	0.0	<0.050	<0.25	250	
R-79AD	32.49	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.84	182	--	--	--	--	0.0	--	--	--	--	
R-79AD	36.87	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	31	--	--	--	--	--	--	--	--	--	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
R-79AD	39.02	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.44	59	--	--	--	--	--	--	--	--	--	--	
R-79AD	41.08	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	45	290	--	--	4.5	<10	0.0	<0.050	0.32	260		
R-80AS	37.67	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.85	<1.0	<1.0	<1.0	<10	--	0.13	-61	380	--	--	7.4	27	2.8	4.6	<0.25	220		
R-80AS	37.23	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.0	<1.0	<1.0	<1.0	<10	--	0.59	-94	410	--	--	5.6	15	1.2	4.6	<0.25	220		
R-80AS	35.57	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<1.0	<1.0	<1.0	<10	--	0.32	-68	400	--	--	4.8	20	3.2	3.5	<0.25	190		
R-80AS (DS#3)	--	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-80AS
R-80AS	35.42	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	<1.0	<1.0	<1.0	<10	--	0.17	-94	370	--	--	5.7	100	4.0	3.8	<0.25	160		
R-80AS	34.09	--	02/27/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.86	33	380	--	--	7.2	130	1.6	3.3	<0.25	220		
R-80AS	32.52	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	-100	350	--	--	6.0	190	2.8	3.6	<0.25	230		
R-80AS	31.82	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.66	-87	390	--	--	7.9	260	1.4	3.3	<0.25	190		
R-80AS	30.88	--	11/12/13	<0.50	0.53*	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	-88	390	--	--	5.5	270	--	3.0	<0.25	260		
R-80AS	34.48	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.17	-90	350	--	--	6.6	190	0.0	3.3	<0.25	240		
R-80AS	37.00	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.22	-18	320	--	--	4.7	150	0.0	1.2	<0.25	270		
R-80AS	37.29	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.65	<1.0	<1.0	<1.0	<10	--	1.01	-60	370	--	--	6.8	120	0.6	2.1	<0.25	240		
R-80AS	38.58	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.83	-61	310	--	--	4.9	100	2.2	1.3	<0.25	260		
R-80AS (DS#12)	--	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-80AS
R-80AM	37.60	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.09	-75	340	--	--	7.2	<10	3.0	<0.050	0.30	230		
R-80AM	37.24	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.12	-103	330	--	--	5.6	<10	2.8	<0.050	0.29	250		
R-80AM	35.65	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.18	-100	330	--	--	3.1	<10	4.1	<0.050	0.25	240		
R-80AM	35.30	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.17	-102	310	--	--	5.4	190	4.0	4.6	<0.25	210		
R-80AM	34.20	--	02/27/13	<0.50	<0.50	1.8	9.2	1.2	7.6	<0.50	<1.0	<1.0	<1.0	<10	--	0.66	-20	340	--	--	7.7	<10	1.2	<0.050	<0.25	180		
R-80AM	32.46	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.29	-115	340	--	--	5.6	33	1.2	<0.050	<0.25	210		
R-80AM	31.75	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.49	-109	340	--	--	5.7	240	0.6	3.7	<0.25	230		
R-80AM	30.78	--	11/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	-75	330	--	--	7.0	170	0.0	2.7	<0.25	250		
R-80AM	34.45	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.37	-107	280	--	--	7.2	100	0.0	0.98	<0.25	230		
R-80AM	36.97	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.38	-65	290	--	--	4.7	73	0.0	0.50	<0.25	260		
R-80AM	37.85	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.91	-107	310	--	--	5.6	<10	0.4	<0.050	<0.25	250		

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-80AM	38.59	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.84	-111	280	--	--	5.6	<10	0.0	<0.050	0.34	260	
R-80AD	37.63	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.10	-54	350	--	--	7.8	<10	2.4	<0.050	0.39	250	
R-80AD	37.24	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.74	<1.0	<1.0	<1.0	<10	--	0.89	-99	330	--	--	5.5	<10	2.2	<0.050	0.31	240	
R-80AD	35.42	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	-96	320	--	--	2.9	<10	5.0	<0.050	0.36	240	
R-80AD	35.32	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	-97	310	--	--	4.9	<10	3.0	<0.050	0.32	240	
R-80AD	34.08	--	02/27/13	<0.50	<0.50	5.0	14	1.3	8.3	<0.50	<1.0	<1.0	<1.0	<10	--	0.69	48	340	--	--	7.5	<10	0.0	<0.050	0.34	230	
R-80AD	32.43	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.30	-108	340	--	--	5.2	16	1.2	<0.050	0.29	220	
R-80AD	31.70	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.66	-106	350	--	--	5.1	260	0.0	4.3	<0.25	210	
R-80AD	30.58	--	11/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	-86	340	--	--	6.5	200	0.0	4.0	<0.25	250	
R-80AD	34.47	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.33	-108	290	--	--	7.6	140	0.0	2.0	<0.25	250	
R-80AD	36.97	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.46	-81	290	--	--	5.5	<10	0.0	<0.050	0.40	240	
R-80AD	37.82	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.86	-60	290	--	--	5.4	<10	2.2	<0.050	0.30	250	
R-80AD	38.66	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	6.8	<1.0	<1.0	<1.0	<10	--	0.68	-107	280	--	--	6.3	<10	0.0	<0.050	0.42	250	
R-80AD	--	--	12/04/14	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.52	-72	--	--	--	--	--	--	--	--	--	
R-81AS	38.40	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.17	-64	380	--	--	5.5	60	2.4	0.74	<0.25	330	
R-81AS	37.75	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.19	-74	380	--	--	4.0	34	2.0	2.6	<0.25	320	
R-81AS	35.76	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	-76	350	--	--	3.3	16	5.2	3.1	<0.25	350	
R-81AS	35.38	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.26	-61	320	--	--	3.8	<10	4.2	2.2	<0.25	340	
R-81AS	34.41	--	02/26/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.53	-3	370	--	--	5.2	47	0.8	2.4	<0.25	340	
R-81AS	32.80	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.44	-80	360	--	--	11	58	2.0	2.5	<0.25	330	
R-81AS	32.18	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	-81	410	--	--	5.5	150	--	5.8	<0.25	320	
R-81AS	31.10	--	11/04/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	-95	440	--	--	9.6	83	0.0	12	<0.25	320	
R-81AS	34.46	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.54	-86	340	--	--	3.9	110	2.2	5.9	<0.25	310	
R-81AS	37.27	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.35	-77	330	--	--	2.8	68	2.8	3.6	<0.25	300	
R-81AS	38.25	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.33	-92	340	--	--	2.9	73	0.2	3.7	<0.25	310	
R-81AS	39.03	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.25	-80	320	--	--	3.1	72	2.2	3.5	<0.25	310	
R-81AD	38.39	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.15	-93	350	--	--	5.8	<10	1.4	0.93	<0.25	360	

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Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-81AD (DS#2)	--	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-81AD
R-81AD	37.77	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	-56	330	--	--	4.6	<10	2.0	1.1	<0.25	360	
R-81AD	35.69	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.38	-75	320	--	--	3.2	<10	1.8	0.10	<0.25	370	
R-81AD	35.36	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	-86	330	--	--	3.5	<10	3.6	2.3	<0.25	340	
R-81AD	34.46	--	02/26/13	<0.50	<0.50	3.8	8.7	1.2	6.4	<0.50	<1.0	<1.0	<1.0	<10	--	0.44	-22	340	--	--	6.5	<10	2.2	2.1	<0.25	320	
R-81AD	32.76	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.25	-92	310	--	--	5.2	13	2.4	<0.050	1.1	240	
R-81AD	32.07	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.67	-92	370	--	--	3.0	55	4.0	<0.050	<0.25	320	
R-81AD	31.04	--	11/04/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.50	-86	390	--	--	4.4	60	1.0	2.6	<0.25	310	
R-81AD	34.34	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.68	29	320	--	--	3.9	30	1.4	<0.050	<0.25	300	
R-81AD	37.24	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.46	-80	320	--	--	2.7	39	1.8	1.2	<0.25	300	
R-81AD	38.33	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.57	-98	310	--	--	2.9	<10	0.2	0.12	<0.25	310	
R-81AD	39.13	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.33	-91	310	--	--	3.0	18	1.0	1.6	<0.25	330	
R-81AD (DS#11)	--	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-81AD
R-82AS	37.86	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.30	40	630	--	--	14	770	1.8	4.8	<0.25	11	
R-82AS	37.30	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	-20	660	--	--	7.0	880	3.4	11	<0.25	8.0	
R-82AS (DS#1)	--	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-82AS
R-82AS	36.00	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.66	-51	670	--	--	6.7	880	3.0	10	<0.25	4.9	
R-82AS	35.99	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.64	-55	570	--	--	7.2	540	5.0	4.1	<0.25	22	
R-82AS	35.32	--	02/27/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.63	-27	670	--	--	18	310	1.2	8.6	<0.25	32	
R-82AS	33.94	--	04/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.78	<1.0	<1.0	<1.0	<10	--	0.20	-53	700	--	--	7.5	4,100	3.2	5.7	<0.25	14	
R-82AS	33.35	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.56	<1.0	<1.0	<1.0	<10	--	0.98	-62	720	--	--	6.7	3,100	1.2	7.9	<0.25	11	
R-82AS	32.92	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.66	-69	530	--	--	9.3	2,600	2.6	8.4	<0.25	130	
R-82AS	35.62	--	02/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.51	-72	290	--	--	6.2	160	2.0	0.51	<0.25	250	
R-82AS	37.07	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	-21	340	--	--	5.7	150	0.0	1.4	<0.25	220	
R-82AS (DS#7)	--	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-82AS
R-82AS	37.38	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.31	-86	370	--	--	5.9	390	1.2	2.6	<0.25	170	
R-82AS	38.00	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.37	-71	380	--	--	6.2	340	2.6	1.8	<0.25	170	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-82AM	37.90	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.70	51	350	--	--	9.4	98	2.0	1.4	<0.25	210	
R-82AM	37.22	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.18	-73	360	--	--	7.8	65	3.0	0.84	<0.25	200	
R-82AM	35.90	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.18	-89	340	--	--	5.2	180	2.4	2.6	<0.25	200	
R-82AM	35.90	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.16	-109	310	--	--	6.3	<10	4.0	<0.050	<0.25	210	
R-82AM	35.30	--	02/27/13	<0.50	<0.50	1.2	7.2	0.98	6.0	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	-43	270	--	--	9.7	<10	1.6	<0.050	<0.25	210	
R-82AM (DS#21)	--	--	02/27/13	<0.50	<0.50	1.1	6.8	0.98	5.8	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-82AM
R-82AM	33.86	--	04/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.42	-127	250	--	--	5.7	<10	3.0	0.056	<0.25	160	
R-82AM	33.30	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.89	-100	260	--	--	4.8	<10	--	<0.050	<0.25	190	
R-82AM	32.92	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.68	-116	310	--	--	9.0	<10	0.0	<0.050	<0.25	260	
R-82AM	35.74	--	02/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.65	-127	300	--	--	6.8	74	1.8	0.13	<0.25	260	
R-82AM	37.02	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.32	-40	310	--	--	5.0	<10	0.0	<0.050	<0.25	260	
R-82AM	37.44	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.07	-118	280	--	--	6.2	26	1.4	0.064	<0.25	260	
R-82AM	37.92	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.68	-111	270	--	--	6.7	81	0.0	<0.050	<0.25	220	
R-82AD	37.69	--	02/06/12	<0.50	<0.50	1.1	0.79	<0.50	0.63	1.7	<1.0	<1.0	<1.0	<10	--	0.90	47	340	--	--	8.7	<10	2.2	<0.050	0.44	200	
R-82AD	36.74	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.17	-61	340	--	--	5.8	<10	2.8	<0.050	<0.25	210	
R-82AD	35.08	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.97	<1.0	<1.0	<1.0	<10	--	0.20	-98	330	--	--	5.3	<10	2.4	<0.050	<0.25	200	
R-82AD	35.28	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.5	<1.0	<1.0	<1.0	<10	--	0.16	-98	330	--	--	4.9	67	3.5	0.98	<0.25	210	
R-82AD	34.38	--	02/27/13	<0.50	<0.50	1.2	6.4	0.77	4.6	<0.50	<1.0	<1.0	<1.0	<10	--	0.50	-31	300	--	--	5.6	<10	0.6	<0.050	0.26	230	
R-82AD	32.53	--	04/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.16	-115	300	--	--	5.4	<10	0.0	0.050	0.28	230	
R-82AD	31.92	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	-109	310	--	--	5.5	<10	0.0	<0.050	<0.25	240	
R-82AD	31.53	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.82	-116	330	--	--	7.8	<10	0.0	<0.050	0.25	260	
R-82AD	35.27	--	02/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.56	-96	290	--	--	6.1	220	3.0	<0.050	<0.25	230	
R-82AD	36.80	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	-75	300	--	--	5.3	<10	0.0	<0.050	0.28	230	
R-82AD	37.20	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.04	-69	290	--	--	5.9	<10	1.8	<0.050	0.33	240	
R-82AD	37.84	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.49	-106	290	--	--	4.6	<10	0.0	<0.050	0.39	240	
R-83AS	36.52	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.09	-47	350	--	--	13	41	1.1	3.5	<0.25	200	
R-83AS	35.64	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.59	-30	460	--	--	4.2	59	2.4	4.8	<0.25	220	

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-83AS	34.36	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.68	<1.0	<1.0	<1.0	<10	--	0.69	-78	540	--	--	6.6	200	5.0	4.6	<0.25	190	
R-83AS	34.70	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.18	-79	390	--	--	6.0	45	4.0	1.5	<0.25	220	
R-83AS (DS#13)	--	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-83AS
R-83AS	35.44	--	02/22/13	<0.50	<0.50	<0.50	0.55	<0.50	<0.50	0.81	<1.0	<1.0	<1.0	<10	--	0.60	35	480	--	--	9.7	94	0.2	2.7	<0.25	230	
R-83AS	32.67	--	04/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.90	<1.0	<1.0	<1.0	<10	--	0.18	-94	470	--	--	7.4	140	2.2	2.9	<0.25	220	
R-83AS	31.92	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.46	-97	310	--	--	5.4	53	1.4	3.0	<0.25	180	
R-83AS	31.42	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	2.18	-85	330	--	--	8.4	57	2.2	2.2	<0.25	230	
R-83AS	36.82	--	02/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.69	-54	280	--	--	9.2	220	3.0	6.6	<0.25	500	
R-83AS (DS#7)	--	--	02/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-83AS
R-83AS	36.22	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.45	-102	310	--	--	7.3	68	3.6	4.1	<0.25	360	
R-83AS	36.14	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.93	-154	300	--	--	6.2	51	1.6	1.2	<0.25	230	
R-83AS	36.50	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.23	-63	320	--	--	5.2	20	0.0	3.2	<0.25	220	
R-83AM	36.48	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.14	-44	360	--	--	8.0	17	1.0	0.70	<0.25	240	
R-83AM	35.66	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.39	-87	400	--	--	9.1	<10	2.6	<0.050	<0.25	520	
R-83AM	34.30	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.20	-78	290	--	--	3.2	<10	4.8	<0.050	<0.25	420	
R-83AM	34.78	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.16	-78	350	--	--	3.9	<10	2.8	<0.050	<0.25	380	
R-83AM	35.52	--	02/22/13	<0.50	<0.50	<0.50	0.69	<0.50	0.53	<0.50	<1.0	<1.0	<1.0	<10	--	0.52	-11	360	--	--	5.9	13	1.2	1.5	<0.25	380	
R-83AM	32.65	--	04/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.56	-77	350	--	--	3.8	<10	2.8	<0.050	<0.25	410	
R-83AM	31.83	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	-75	360	--	--	3.6	<10	0.0	<0.050	<0.25	350	
R-83AM	31.35	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.66	-79	330	--	--	7.5	<10	0.0	<0.050	<0.25	240	
R-83AM	36.80	--	02/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.67	-73	260	--	--	5.9	<10	1.4	<0.050	<0.25	150	
R-83AM	36.22	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.73	-37	300	--	--	4.9	<10	0.0	0.053	<0.25	180	
R-83AM	35.94	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.80	-34	280	--	--	4.9	<10	1.8	<0.050	<0.25	150	
R-83AM	36.49	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.48	-91	280	--	--	4.9	<10	0.0	<0.050	<0.25	150	
R-83AD	36.41	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.09	-16	330	--	--	4.9	<10	0.1	<0.050	0.31	410	
R-83AD	35.62	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.49	-89	310	--	--	4.1	<10	2.2	<0.050	<0.25	380	
R-83AD	34.28	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.17	-80	330	--	--	3.6	<10	4.5	<0.050	<0.25	310	

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-83AD	34.68	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.10	-70	360	--	--	4.4	<10	3.0	<0.050	<0.25	270	
R-83AD	35.76	--	02/22/13	<0.50	<0.50	0.72	1.6	<0.50	0.83	<0.50	<1.0	<1.0	<1.0	57	--	0.68	202	370	--	--	3.6	<10	1.0	2.2	<0.25	360	
R-83AD (DS#17)	--	--	02/22/13	<0.50	<0.50	0.75	1.7	<0.50	0.90	<0.50	<1.0	<1.0	<1.0	58	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-83AD
R-83AD	32.76	--	04/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.11	-89	380	--	--	4.0	<10	3.0	<0.050	<0.25	370	
R-83AD	32.03	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.68	-79	350	--	--	4.5	<10	1.6	<0.050	1.9	340	
R-83AD	31.52	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.06	-88	360	--	--	7.0	<10	0.0	<0.050	1.5	350	
R-83AD	36.87	--	02/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.64	-67	330	--	--	4.8	<10	4.0	<0.050	2.3	320	
R-83AD	36.14	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	12	--	1.59	-114	300	--	--	4.5	<10	0.0	<0.050	<0.25	290	
R-83AD	36.02	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.79	-119	300	--	--	5.2	<10	0.4	<0.050	0.74	290	
R-83AD	36.38	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	-75	310	--	--	4.3	<10	0.0	<0.050	1.6	290	
R-84AS	34.27	--	02/14/12	2.4	<0.50	<5.0	<5.0	740	<5.0	6.1	<10	<10	<10	<100	--	0.42	111	610	--	--	13	440	0.0	4.8	<0.25	49	
R-84AS	33.42	--	05/03/12	2.0	<0.50	2.7	<2.0	350	<2.0	6.4	<4.0	<4.0	<4.0	<40	--	0.55	43	600	--	--	17	410	1.6	4.7	<0.25	73	
R-84AS	33.12	--	08/16/12	<0.50	<0.50	<0.50	<0.50	0.53	<0.50	5.1	<1.0	<1.0	<1.0	<10	--	0.11	-80	520	--	--	7.8	620	6.5	8.2	<0.25	160	
R-84AS	31.96	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3.6	<1.0	<1.0	<1.0	15	--	0.02	-24	480	--	--	6.8	310	3.2	9.2	<0.25	150	
R-84AS	30.80	--	02/21/13	<0.50	<0.50	0.72	<0.50	<0.50	<0.50	2.8	<1.0	<1.0	<1.0	14	--	0.72	-97	510	--	--	12	360	--	11	<0.25	230	Odor
R-84AS	29.92	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.3	<1.0	<1.0	<1.0	13	--	0.30	-57	480	--	--	8.0	1,200	0.0	13	<0.25	400	
R-84AS	--	--	08/05/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample	
R-84AS	--	--	11/07/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Insufficient H2O to Sample	
R-84AS	31.73	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.0	<1.0	<1.0	<1.0	<10	--	0.45	380	17**	--	--	3.7	65	0.0	18	<0.25	1,500	
R-84AS	36.68	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.23	-55	320	--	--	3.1	14	2.6	3.4	<0.25	520	
R-84AS	39.25	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.28	-157	340	--	--	3.5	25	0.0	3.4	<0.25	530	
R-84AS	40.98	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.61	-28	370	--	--	3.4	22	2.4	2.4	<0.25	560	
R-84AM	34.04	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	0.93	<1.0	<1.0	<1.0	<1.0	<10	--	0.48	107	320	--	--	4.3	19	0.4	0.91	<0.25	450	
R-84AM	33.60	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	0.78	<1.0	<1.0	<1.0	<1.0	<10	--	0.88	43	340	--	--	7.9	11	1.2	0.63	<0.25	500	
R-84AM	32.72	--	08/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.09	11	330	--	--	3.4	10	1.2	0.65	<0.25	520	
R-84AM	31.88	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.84	45	330	--	--	4.4	<10	1.0	0.39	<0.25	490	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
R-84AM	30.90	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.45	49	330	--	--	3.7	<10	1.5	0.63	<0.25	480	
R-84AM	29.96	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	<1.0	<1.0	<1.0	<10	--	0.41	36	340	--	--	3.5	<10	1.8	0.065	<0.25	510	
R-84AM	28.82	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	17	360	--	--	3.4	<10	1.2	0.053	<0.25	530	
R-84AM	27.61	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	120	360	--	--	3.6	<10	0.8	0.24	<0.25	520	
R-84AM	31.75	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.28	10	310	--	--	4.4	<10	0.0	0.20	<0.25	500	
R-84AM	36.72	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.58	33	320	--	--	3.4	<10	0.0	1.1	<0.25	490	
R-84AM	39.41	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.04	-97	300	--	--	4.7	<10	0.04	<0.050	<0.25	500	
R-84AM	40.32	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	1	320	--	--	23	<10	0.04	0.81	<0.25	510	
R-84AD	33.82	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.62	<1.0	<1.0	<1.0	<10	--	0.68	117	280	--	--	4.7	<10	0.2	<0.050	1.6	410	
R-84AD	33.60	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.64	<1.0	<1.0	<1.0	<10	--	0.93	35	290	--	--	6.7	<10	0.2	<0.050	1.7	430	
R-84AD	32.66	--	08/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.12	93	280	--	--	3.4	<10	0.0	<0.050	1.6	400	
R-84AD	32.11	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.61	-18	290	--	--	6.4	<10	0.0	<0.050	1.9	420	
R-84AD	30.51	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.57	62	370	--	--	8.9	<10	0.0	0.11	2.3	470	
R-84AD	29.61	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	0.61	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	-24	350	--	--	4.4	<10	0.0	<0.050	2.2	470	
R-84AD	28.37	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.92	94	320	--	--	9.1	<10	0.0	<0.050	2.5	480	
R-84AD	27.53	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.41	135	260	--	--	3.8	<10	0.0	<0.050	2.7	480	
R-84AD	31.94	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.60	165	240	--	--	12	<10	0.0	<0.050	2.8	480	
R-84AD	36.76	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.63	124	160	--	--	3.7	<10	0.0	<0.050	2.3	420	
R-84AD	39.13	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.92	-97	180	--	--	5.3	<10	0.02	<0.050	2.4	430	
R-84AD	40.88	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.58	94	190	--	--	32	<10	0.02	<0.050	2.4	440	
R-85AS	34.01	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	0.58	151	520	--	--	4.3	<10	0.0	<0.050	<0.25	250	
R-85AS (DS#17)	--	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-85AS
R-85AS	33.38	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	<1.0	<1.0	<1.0	<10	--	0.52	222	360	--	--	6.6	<10	0.0	<0.050	1.3	260	
R-85AS (DS#17)	--	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-85AS
R-85AS	33.13	--	08/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.88	<1.0	<1.0	<1.0	<10	--	0.58	121	400	--	--	3.3	<10	0.0	<0.050	0.85	250	
R-85AS (DS#16)	--	--	08/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.78	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-85AS
R-85AS	32.12	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	<1.0	<1.0	<1.0	<10	--	0.03	142	360	--	--	4.4	<10	0.0	<0.050	0.80	250	

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
R-85AS	31.18	--	02/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	<1.0	<1.0	<1.0	<1.0	--	0.58	223	410	--	--	3.6	<10	0.0	0.14	<0.25	330		
R-85AS	29.92	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.52	<1.0	<1.0	<1.0	490	<0.005	0.33	53	520	--	--	4.4	<10	0.0	<0.050	<0.25	310		
R-85AS (DS#11)	--	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.59	<1.0	<1.0	<1.0	470	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-85AS
R-85AS	28.65	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.75	101	480	--	--	4.5	<10	0.0	<0.050	<0.25	300		
R-85AS	27.87	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.60	<1.0	<1.0	<1.0	<1.0	--	0.63	85	420	--	--	5.3	<10	0.0	<0.050	<0.25	300		
R-85AS	31.36	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	<1.0	<1.0	<1.0	39	--	0.31	66	400	--	--	5.0	<10	0.0	<0.050	<0.25	340		
R-85AS	36.70	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	<1.0	<1.0	<1.0	<1.0	--	1.31	218	400	--	--	3.8	<10	0.0	<0.050	<0.25	330		
R-85AS (DS#14)	--	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-85AS
R-85AS	39.25	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.79	<1.0	<1.0	<1.0	<1.0	--	0.62	34	330	--	--	5.3	<10	0.0	<0.050	2.1	400		
R-85AS (DS#14)	--	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-85AS
R-85AS	41.04	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	<1.0	<1.0	<1.0	<1.0	--	0.53	20	420	--	--	3.7	<10	0.0	<0.050	<0.25	350		
R-85AM	33.91	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.54	<1.0	<1.0	<1.0	<1.0	--	0.66	112	410	--	--	4.7	<10	1.8	<0.050	0.36	300		
R-85AM	32.78	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.88	159	370	--	--	7.6	<10	0.0	<0.050	0.54	290		
R-85AM	32.76	--	08/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.20	45	410	--	--	3.9	<10	0.0	<0.050	0.26	330		
R-85AM	31.79	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.71	<1.0	<1.0	<1.0	<1.0	--	0.15	132	420	--	--	6.9	<10	0.0	<0.050	<0.25	350		
R-85AM	30.98	--	02/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	0.74	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.30	155	59	--	--	3.4	<10	0.0	<0.050	0.36	130		
R-85AM	30.11	--	05/06/13	<0.50	<0.50	0.85	1.7	<0.50	0.67	1.2	<1.0	<1.0	<1.0	<1.0	--	0.50	76	180	--	--	3.9	<10	0.6	<0.050	<0.25	140		
R-85AM	28.15	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.64	66	170	--	--	5.8	<10	0.0	<0.050	0.38	170		
R-85AM	27.51	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.66	<1.0	<1.0	<1.0	<1.0	--	0.56	25	340	--	--	5.6	<10	0.0	<0.050	1.1	260		
R-85AM	31.94	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.16	68	85	--	--	6.1	<10	0.0	<0.050	0.87	130		
R-85AM	36.88	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	1.01	83	90	--	--	5.0	<10	0.0	<0.050	0.34	90		
R-85AM	39.24	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.88	-10	100	--	--	6.9	<10	0.0	<0.050	0.44	96		
R-85AM	41.03	--	11/04/14	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	--	0.50	-10	33	--	--	15	<10	0.0	0.064	0.78	54		
R-85AD	33.74	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	0.55	1.0	<1.0	<1.0	<1.0	<1.0	--	0.98	147	360	--	--	5.9	<10	0.2	<0.050	<0.25	320		
R-85AD	32.69	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	--	0.78	210	350	--	--	8.2	<10	0.2	<0.050	<0.25	320		
R-85AD	32.67	--	08/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.94	<1.0	<1.0	<1.0	<1.0	--	0.12	9	370	--	--	4.4	<10	0.3	<0.050	1.1	320		
R-85AD	31.72	--	10/31/12	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	--	0.17	132	350	--	--	10	<10	0.0	<0.050	0.38	300		

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
R-85AD	30.96	--	02/08/13	<0.50	<0.50	<0.50	<0.50	0.71	2.6	<0.50	<1.0	<1.0	<1.0	<10	--	0.55	103	350	--	--	4.8	<10	0.0	<0.050	<0.25	300	
R-85AD	30.07	--	05/06/13	<0.50	<0.50	1.1	2.2	<0.50	0.88	1.1	<1.0	<1.0	<1.0	<10	--	0.25	39	320	--	--	4.5	<10	0.0	<0.050	<0.25	290	
R-85AD	27.92	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.59	<1.0	<1.0	<1.0	<10	--	0.59	17	340	--	--	4.4	<10	0.0	<0.050	0.33	290	
R-85AD	27.38	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.58	<1.0	<1.0	<1.0	<10	--	0.41	5	320	--	--	6.7	<10	0.0	<0.050	0.35	290	
R-85AD	31.97	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.85	13	260	--	--	7.5	<10	0.0	<0.050	0.42	280	
R-85AD (DS#14)	--	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of R-85AD
R-85AD	36.85	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.66	110	260	--	--	5.5	<10	0.0	<0.050	<0.25	270	
R-85AD	39.32	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.88	6	240	--	--	12	<10	0.0	<0.050	0.70	270	
R-85AD	41.04	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.37	5	250	--	--	6.5	<10	0.0	<0.050	0.55	280	
R-86AS	37.92	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	3.19	163	250	--	--	5.8	<10	0.0	<0.050	0.86	300	
R-86AS	39.82	--	08/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	2.54	176	270	--	--	7.8	<10	0.0	<0.050	2.1	350	
R-86AS	41.78	--	11/12/14	<0.50	<0.50	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<5.0	<5.0	<50	--	0.82	157	230	--	--	39	<10	0.0	0.087	3.3	520	
R-87AS	37.37	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.97	89	350	--	--	5.8	<10	0.0	<0.050	<0.25	260	
R-87AS	39.33	--	08/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	3.75	149	310	--	--	4.4	<10	0.0	<0.050	2.2	250	
R-87AS	41.07	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.42	140	340	--	--	4.3	<10	0.0	<0.050	0.63	280	
RW-247	--	28.83	05/12/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Dry
RW-247	38.63	--	08/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.03	234	380	--	--	5.2	<10	0.0	<0.050	1.6	360	
RW-247	39.90	--	11/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.70	152	430	--	--	5.6	<10	0.0	<0.050	0.73	480	
T-11	38.06	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	56	--	--	--	--	--	--	--	--	--	
T-11	38.20	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.21	129	--	--	--	--	--	--	--	--	--	
T-11	37.84	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.54	85	--	--	--	--	--	--	--	--	--	
T-11	36.70	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.31	143	--	--	--	--	--	--	--	--	--	
T-11	37.12	--	02/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.36	270	--	--	--	--	--	--	--	--	--	
T-11 (DS#6)	--	--	02/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of T-11
T-11	36.49	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.48	207	--	--	--	--	--	--	--	--	--	
T-11	36.17	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.84	79	--	--	--	--	--	--	--	--	--	
T-11	35.96	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.77	197	--	--	--	--	--	--	--	--	--	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (Fe ²⁺)-Field mg/L	Iron, Ferrous (Fe ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
T-11 (DS#3)	--	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of T-11
T-11	36.16	--	02/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	1.81	105.8	--	--	--	--	--	--	--	--	--	--
T-11	39.01	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.27	163	--	--	--	--	--	--	--	--	--	--
T-11	40.28	--	08/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.62	146	--	--	--	--	--	--	--	--	--	--
T-11	42.81	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.31	140	--	--	--	--	--	--	--	--	--	--
T-12	39.65	--	02/07/12	--	--	--	--	--	--	--	--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	Gauged Only
T-12	39.79	--	04/30/12	--	--	--	--	--	--	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--	--	--	--	Gauged Only
T-12	39.62	--	08/13/12	--	--	--	--	--	--	--	--	--	--	--	--	0.12	--	--	--	--	--	--	--	--	--	--	Gauged Only
T-12	38.55	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.29	107	--	--	--	--	--	--	--	--	--	--
T-12	38.59	--	02/06/13	--	--	--	--	--	--	--	--	--	--	--	--	0.67	--	--	--	--	--	--	--	--	--	--	Gauged Only
T-12	38.28	--	05/02/13	--	--	--	--	--	--	--	--	--	--	--	--	0.55	--	--	--	--	--	--	--	--	--	--	Gauged Only
T-12	38.02	--	07/29/13	--	--	--	--	--	--	--	--	--	--	--	--	1.77	--	--	--	--	--	--	--	--	--	--	Gauged Only
T-12	37.92	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.68	196	--	--	--	--	--	--	--	--	--	--
T-12	38.30	--	02/14/14	--	--	--	--	--	--	--	--	--	--	--	--	1.23	--	--	--	--	--	--	--	--	--	--	Gauged Only
T-12	40.32	--	05/12/14	--	--	--	--	--	--	--	--	--	--	--	--	0.23	--	--	--	--	--	--	--	--	--	--	Gauged Only
T-12	41.32	--	07/30/14	--	--	--	--	--	--	--	--	--	--	--	--	0.36	--	--	--	--	--	--	--	--	--	--	Gauged Only
T-12	43.90	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	0.35	140	--	--	--	--	--	--	--	--	--	--
T-12 (DS#14)	--	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	Duplicate of T-12
RW-3A	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	--	--	--	0.14	0.53	310	--
RW-3A	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RW-3A	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	--	--	--	<0.040	0.23	270	--
RW-3A	--	--	06/25/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.33	--	--	--	--
RW-3A	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	0.96	<0.50	<0.50	<0.50	<10	--	--	--	360	--	--	--	--	--	<0.040	0.38	290	--
RW-3A	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	0.93	<0.50	<0.50	<0.50	<10	--	--	--	350	--	--	--	--	--	<0.040	<0.55	310	--
RW-3A	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	--	--	--	0.054	<0.22	280	--
RW-3A	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	<150	--	--	350	--	--	--	--	--	<0.040	<0.22	280	--
RW-3A	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	0.060	0.13	280	--

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters																											
Mission Valley Terminal, San Diego, CA																											
ARCADIS CM010143.0175																											
Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO ₃) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
RW-3A-DUP	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	1.0	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
RW-3A	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	1.0	<0.50	<0.50	<0.50	<10	--	--	--	400	--	--	--	--	--	<0.040	0.15	290	
RW-3A	--	--	02/04/14	--	--	1.1	<0.50	<0.50	<1.0	2.3	<0.50	<0.50	<0.50	44	--	--	--	410	--	--	--	--	--	<0.040	<0.22	230	
RW-3A	--	--	05/16/14	--	--	<0.50	<0.50	<0.50	<1.0	0.87	<0.50	<0.50	<0.50	<10	<150	--	--	380	--	--	--	--	--	<0.040	<0.22	270	
RW-3A	--	--	08/04/14	--	--	<0.50	<0.50	<0.50	<1.0	0.63	<0.50	<0.50	<0.50	<10	--	0.98	-96	--	--	--	--	--	0.0	--	--	--	
RW-3A	--	--	11/11/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.31	-44	310	--	--	4.6	18	0.0	<0.050	2.3	310	
RW-5A	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.71	<0.50	<0.50	<0.50	<10	--	--	--	390	--	--	--	--	--	<0.040	0.36	260	
RW-5A	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW-5A	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	0.77	<0.50	<0.50	<0.50	<10	--	--	--	370	--	--	--	--	--	<0.040	<0.22	210	
RW-5A	--	--	06/26/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.040	--	--	
RW-5A	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	0.72	<0.50	<0.50	<0.50	<10	--	--	--	370	--	--	--	--	--	<0.040	<0.22	290	
RW-5A	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	0.71	<0.50	<0.50	<0.50	<10	--	--	--	380	--	--	--	--	--	<0.040	<0.55	310	
RW-5A	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	0.75	<0.50	<0.50	<0.50	<10	--	--	--	380	--	--	--	--	--	<0.040	<0.22	300	
RW-5A	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	0.64	<0.50	<0.50	<0.50	<10	--	--	--	380	--	--	--	--	--	<0.040	<0.22	290	
RW-5A	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	0.65	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.040	<0.11	280	
RW-5A	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	0.60	<0.50	<0.50	<0.50	<10	--	--	--	410	--	--	--	--	--	<0.040	<0.11	290	
RW-5A	--	--	02/04/14	--	--	<0.50	<0.50	<0.50	<1.0	0.65	<0.50	<0.50	<0.50	<10	--	--	--	400	--	--	--	--	--	<0.040	<0.22	270	
RW-5A	--	--	05/16/14	--	--	<0.50	<0.50	<0.50	<1.0	0.79	<0.50	<0.50	<0.50	<10	<150	--	--	380	--	--	--	--	--	<0.040	<0.22	280	
RW-5A	--	--	08/06/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.28	-32	--	--	--	--	--	--	--	--	--	
RW-5A	--	--	11/06/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.44	129	200	--	--	13	<10	0.0	<0.050	38	390	
RW-7A	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.64	<0.50	<0.50	<0.50	<10	--	--	--	380	--	--	--	--	--	<0.040	<0.22	290	
RW-7A	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW-7A	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	0.73	<0.50	<0.50	<0.50	<10	--	--	--	380	--	--	--	--	--	<0.040	<0.22	250	
RW-7A	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	0.59	<0.50	<0.50	<0.50	<10	--	--	--	400	--	--	--	--	--	<0.040	<0.22	300	
RW-7A	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	0.60	<0.50	<0.50	<0.50	<10	--	--	--	400	--	--	--	--	--	<0.040	<0.55	320	
RW-7A	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	0.69	<0.50	<0.50	<0.50	<10	--	--	--	360	--	--	--	--	--	<0.040	<0.22	290	
RW-7A	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	0.59	<0.50	<0.50	<0.50	<10	--	--	--	360	--	--	--	--	--	<0.040	<0.22	270	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
RW-7A	--	--	09/05/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	<150	--	--	390	--	--	--	--	--	<0.040	<0.55	310	
RW-7A	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	0.58	<0.50	<0.50	<0.50	<10	--	--	--	400	--	--	--	--	--	<0.040	<0.11	260	
RW-7A	--	--	02/04/14	--	--	<0.50	<0.50	<0.50	<1.0	0.57	<0.50	<0.50	<0.50	<10	--	--	--	370	--	--	--	--	--	<0.040	<0.22	310	
RW-7A	--	--	05/27/14	--	--	<0.50	<0.50	<0.50	<1.0	1.0	<0.50	<0.50	<0.50	<10	--	--	--	380	--	--	--	--	--	<0.040	1.3	290	
RW-7A	--	--	08/06/14	--	--	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<0.50	<0.50	<10	--	0.25	73	--	--	--	--	--	--	--	--	--	
RW-7A	--	--	11/06/14	--	--	<0.50	<0.50	<0.50	<1.0	0.78	<0.50	<0.50	<0.50	<10	--	0.16	83	360	--	--	4.8	10	0.0	<0.050	1.1	290	
RW-8	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	1.7	<0.50	<0.50	<0.50	<10	--	--	--	320	--	--	--	--	--	<0.040	<0.55	300	
RW-8	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	0.84	29	350	--	--	4.0	18	0.2	<0.050	<0.25	280	
RW-8	--	--	05/04/12	--	--	--	--	--	--	--	--	--	--	--	--	0.31	-34	340	--	--	7.8	15	0.0	<0.050	<0.25	280	
RW-8	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	1.6	<0.50	<0.50	<0.50	<10	--	--	--	330	--	--	--	--	--	<0.040	0.25	250	
RW-8	--	--	06/26/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.040	--	--	
RW-8	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.65	9	390	--	--	4.0	16	0.0	<0.050	<0.25	250	
RW-8	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	3.5	<0.50	<0.50	<0.50	<10	--	--	--	360	--	--	--	--	--	<0.040	0.29	290	
RW-8	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	2.6	<0.50	<0.50	<0.50	<10	--	0.89	18	360	--	--	5.2	19	0.0	0.13	<0.55	340	
RW-8	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	--	--	--	290	--	--	--	--	--	<0.040	<0.22	280	
RW-8	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	--	0.86	33	340	--	--	4.0	18	0.0	<0.050	<0.25	280	
RW-8	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	0.81	<0.50	<0.50	<0.50	<10	<150	--	--	300	--	--	--	--	--	<0.040	<0.22	300	
RW-8	--	--	05/14/13	--	--	--	--	--	--	--	--	--	--	--	<0.005	--	--	330	--	--	4.3	23	--	<0.050	<0.25	280	
RW-8	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	0.85	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.040	<0.11	270	
RW-8	--	--	08/07/13	--	--	--	--	--	--	--	--	--	--	--	--	0.60	68	350	--	--	4.3	20	0.0	<0.050	<0.25	280	
RW-8	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	0.71	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	--	--	--	<0.040	<0.11	270	
RW-8	--	--	11/13/13	--	--	--	--	--	--	--	--	--	--	--	--	0.49	115	350	--	--	4.4	21	0.0	<0.050	<0.25	280	
RW-8	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	0.82	<0.50	<0.50	<0.50	<10	--	0.32	143.9	330	--	--	5.0	24	0.0	<0.050	<0.25	530	
RW-8	--	--	05/16/14	--	--	<0.50	<0.50	<0.50	<1.0	0.98	<0.50	<0.50	<0.50	<10	<150	0.71	29	370	--	--	3.8	57	0.0	<0.050	<0.25	270	
RW-8	--	--	08/04/14	--	--	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<0.50	<10	--	0.46	34	370	--	--	56	38	0.0	<0.050	<0.25	250	
RW-8	--	--	11/05/14	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	--	0.49	-89	300	--	--	3.6	39	0.0	<0.20	<0.25	260	
RW-9	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	4.1	<0.50	<0.50	<0.50	<10	--	--	--	350	--	--	--	--	--	<0.040	0.60	300	

Table 4



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Mission Valley Terminal, San Diego, CA
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Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
RW-9	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	0.77	--	-4	370	--	--	4.7	21	0.4	0.089	<0.25	280		
RW-9	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	0.63	<0.50	<0.50	<0.50	<10	--	--	--	460	--	--	8.9	<10	--	<0.050	1.2	290		
RW-9	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	0.66	16	390	--	--	4.1	21	0.0	<0.050	<0.25	260			
RW-9	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	3.5	<0.50	<0.50	<0.50	<10	--	--	--	360	--	--	--	--	--	<0.040	0.30	290		
RW-9	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	2.3	<0.50	<0.50	<0.50	<10	--	0.86	4	390	--	--	4.8	25	0.0	0.12	<0.55	330		
RW-9	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	2.2	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	--	--	--	<0.040	<0.55	300		
RW-9	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	0.38	8	380	--	--	4.2	22	0.0	0.094	<0.25	300			
RW-9	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<0.50	<0.50	<10	--	--	--	350	--	--	--	--	--	<0.040	0.42	310		
RW-9	--	--	05/14/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	380	--	--	4.5	27	--	<0.050	<0.25	310		
RW-9	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	0.067	0.15	300		
RW-9	--	--	08/07/13	--	--	--	--	--	--	--	--	--	--	--	0.59	-8	370	--	--	5.6	30	0.0	<0.050	<0.25	300			
RW-9	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	0.91	<0.50	<0.50	<0.50	<10	--	--	--	380	--	--	--	--	--	0.073	<0.11	340		
RW-9	--	--	11/14/13	--	--	--	--	--	--	--	--	--	--	--	0.86	34	400	--	--	4.0	28	0.0	0.18	<0.25	310			
RW-9	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	--	0.16	29.2	330	--	--	5.0	35	0.8	0.24	<0.25	560		
RW-9	--	--	05/16/14	--	--	<0.50	<0.50	<0.50	<1.0	1.0	<0.50	<0.50	<0.50	<10	<150	0.68	-18	340	--	--	4.2	39	1.2	0.22	<0.25	280		
RW-9	--	--	08/05/14	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	<10	--	2.16	-94	330	--	--	4.7	34	0.4	0.52	<0.25	280		
RW-9	--	--	11/05/14	--	--	<0.50	<0.50	<0.50	<1.0	0.94	<0.50	<0.50	<0.50	<10	--	0.41	-60	300	--	--	4.4	31	0.4	3.2	<0.25	280		
RW-48	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.70	<0.50	<0.50	<0.50	<10	--	--	--	350	--	--	--	--	--	<0.040	<0.55	280		
RW-48-DUP	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.63	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW-48	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW-48	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	0.99	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	--	--	--	<0.040	0.22	280		
RW-48	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	0.72	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	--	--	--	<0.040	<0.22	290		
RW-48	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	0.65	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	--	--	--	<0.040	<0.55	330		
RW-48	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	0.74	<0.50	<0.50	<0.50	<10	--	--	--	350	--	--	--	--	--	<0.040	<0.55	290		
RW-48	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	0.59	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	--	--	--	<0.040	<0.22	290		
RW-48	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	0.82	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.040	<0.11	250		
RW-48	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	0.99	<0.50	<0.50	<0.50	<10	--	--	--	460	--	--	--	--	--	<0.040	<0.11	270		

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ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
RW-48	--	--	02/04/14	--	--	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<0.50	<10	--	--	--	390	--	--	--	--	<0.040	<0.11	280		
RW-48	--	--	05/16/14	--	--	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<0.50	<10	<150	--	--	380	--	--	--	--	<0.040	<0.11	250		
RW-48	--	--	08/05/14	--	--	<0.50	<0.50	<0.50	<1.0	0.83	<0.50	<0.50	<0.50	<10	--	0.50	-25	--	--	--	--	--	--	--	--		
RW-48	--	--	11/07/14	--	--	<0.50	<0.50	<0.50	<1.0	1.5	<0.50	<0.50	<0.50	<10	--	0.44	-7	360	--	--	4.1	<10	0.0	<0.050	<0.25	270	
RW-49	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	110	--	--	--	--	--	--	--	--	--	--	--		
RW-49	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	170	--	--	--	380	--	--	--	--	--	<0.040	1.1	310	
RW-49	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	0.83	-49	420	--	--	3.3	<10	1.2	0.91	0.60	300	
RW-49	--	--	04/03/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	120	--	--	--	--	--	--	--	--	--	--	1.2	--	
RW-49	--	--	05/04/12	--	--	--	--	--	--	--	--	--	--	--	--	0.24	-47	390	--	--	6.6	<10	1.0	0.49	0.64	300	
RW-49	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	140	--	--	--	380	--	--	--	--	--	<0.040	0.71	340	
RW-49	--	--	06/07/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	110	--	--	--	--	--	--	--	--	--	--	1.1	--	
RW-49	--	--	07/10/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	91	--	--	--	--	--	--	--	--	--	--	0.68	--	
RW-49	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.89	-25	440	--	--	2.7	<10	0.4	0.10	<0.25	320	
RW-49	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	0.88	<0.50	<0.50	<0.50	70	--	--	--	380	--	--	--	--	--	<0.040	<0.22	310	
RW-49	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<0.50	74	--	0.82	-38	400	--	--	4.7	14	1.8	1.2	<1.1	280	
RW-49	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<0.50	<0.50	50	--	--	--	380	--	--	--	--	--	<0.040	<0.55	270	
RW-49	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	--	0.58	-24	440	--	--	4.0	16	--	1.1	<0.25	270	
RW-49	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	34	--	--	--	380	--	--	--	--	--	<0.040	<0.55	300	
RW-49	--	--	05/10/13	--	--	--	--	--	--	--	--	--	--	--	--	1.00	-67	420	--	--	4.7	31	2.0	1.0	<0.25	270	
RW-49	--	--	05/21/13	--	--	<0.50	<0.50	<0.50	<1.0	1.5	<0.50	<0.50	<0.50	26	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-49	--	--	06/19/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	17	--	--	--	--	--	--	--	--	--	<0.040	<0.22	--	
RW-49	--	--	07/02/13	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	23	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-49	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<0.50	<0.50	19	<150	--	--	380	--	--	--	--	--	<0.040	<0.22	260	
RW-49	--	--	08/07/13	--	--	--	--	--	--	--	--	--	--	--	--	5.48	-63	400	--	--	4.2	12	2.2	0.076	<0.25	260	
RW-49	--	--	09/10/13	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	19	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-49	--	--	10/08/13	--	--	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<0.50	18	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-49	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	1.0	<0.50	<0.50	<0.50	19	--	--	--	410	--	--	--	--	--	<0.040	<0.11	270	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
RW-49	--	--	11/13/13	--	--	--	--	--	--	--	--	--	--	--	1.32	--	-58	390	--	--	4.3	24	0.0	0.45	<0.25	270	
RW-49	--	--	12/03/13	--	--	<0.50	<0.50	<0.50	<1.0	0.88	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-49	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	0.62	<0.50	<0.50	<0.50	22	--	0.15	-47.7	370	--	--	4.3	72	1.4	2.4	<0.25	260	
RW-49-DUP	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	0.55	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	
RW-49	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	0.55	<0.50	<0.50	<0.50	11	--	0.58	-65	380	--	--	4.2	110	3.0	2.7	<0.25	290	
RW-49	--	--	08/06/14	--	--	<0.50	<0.50	<0.50	<1.0	0.59	<0.50	<0.50	<0.50	<10	--	0.27	-66	430	--	--	5.5	81	0.2	2.4	0.94	240	
RW-49	--	--	11/10/14	--	--	<0.50	<0.50	<0.50	<1.0	0.58	<0.50	<0.50	<0.50	<10	--	0.98	-38	430	--	--	4.5	23	0.0	0.27	0.28	250	
RW-50	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.84	<0.50	<0.50	<0.50	41	--	--	--	--	--	--	--	--	--	--	--	--	
RW-50	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.53	<0.50	<0.50	<0.50	52	--	--	--	350	--	--	--	--	--	0.11	<0.55	310	
RW-50	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	0.62	-73	370	--	--	4.1	<10	2.8	3.8	<0.25	290		
RW-50	--	--	03/06/12	--	--	<0.500	<0.500	<0.500	<1.00	0.584	<0.500	<0.500	<0.500	37.1	--	--	--	--	--	--	--	--	--	--	<0.550	--	
RW-50	--	--	04/03/12	--	--	<0.50	<0.50	<0.50	<1.0	0.58	<0.50	<0.50	<0.50	39	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-50	--	--	05/04/12	--	--	--	--	--	--	--	--	--	--	--	0.49	-81	350	--	--	6.9	<10	1.8	4.3	<0.25	330		
RW-50	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	0.67	<0.50	<0.50	<0.50	31	--	--	--	320	--	--	--	--	--	<0.040	<0.22	320	
RW-50	--	--	06/07/12	--	--	<0.50	<0.50	<0.50	<1.0	0.53	<0.50	<0.50	<0.50	29	--	--	--	--	--	--	--	--	--	--	0.95	--	
RW-50	--	--	07/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.63	<0.50	<0.50	<0.50	29	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-50	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	0.53	-91	370	--	--	3.9	74	3.2	4.4	<0.25	280		
RW-50	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	0.65	<0.50	<0.50	<0.50	46	--	0.76	-27	350	--	--	4.7	<10	1.8	0.20	<1.1	300	
RW-50	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	0.69	<0.50	<0.50	<0.50	65	--	--	--	340	--	--	--	--	--	<0.040	<0.55	340	
RW-50	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	1.20	-40	390	--	--	3.8	<10	1.2	0.097	<0.25	270		
RW-50	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	36	--	--	--	360	--	--	--	--	--	<0.040	<0.55	270	
RW-50	--	--	05/10/13	--	--	--	--	--	--	--	--	--	--	--	5.59	-84	390	--	--	4.3	26	2.4	0.12	<0.25	240		
RW-50	--	--	05/21/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	30	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-50	--	--	06/19/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	16	--	--	--	--	--	--	--	--	--	<0.040	<0.22	--	
RW-50	--	--	07/02/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	15	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-50	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	0.56	<0.50	<0.50	<0.50	11	<150	--	--	340	--	--	--	--	--	<0.040	<0.11	260	
RW-50	--	--	08/07/13	--	--	--	--	--	--	--	--	--	--	--	4.86	-67	360	--	--	5.3	100	1.8	0.43	<0.25	230		

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
RW-50	--	--	09/10/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	12	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-50	--	--	10/08/13	--	--	<0.50	<0.50	<0.50	<1.0	0.53	<0.50	<0.50	<0.50	10	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-50	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	--	--	<0.040	<0.11	230		
RW-50	--	--	11/13/13	--	--	--	--	--	--	--	--	--	--	--	--	0.47	-72	350	--	--	4.5	110	0.0	0.18	<0.25	240	
RW-50	--	--	12/03/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-50	--	--	02/10/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	290	--	--	6.1	30	--	0.34	<0.25	280	
RW-50	--	--	02/18/14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW-50	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	7.03	-51	270	--	--	4.3	53	3.6	3.6	<0.25	330	
RW-50	--	--	08/06/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.22	-114	160	--	--	5.7	720	3.6	40	0.14	760	
RW-50	--	--	11/06/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	11	--	0.48	-78	170	--	--	5.4	94	4.8	34	<0.25	550	
RW-51	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.70	<0.50	<0.50	<0.50	40	--	--	--	--	--	--	--	--	--	--	--	--	
RW-51	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.53	<0.50	<0.50	<0.50	37	--	--	--	280	--	--	--	--	--	0.33	<0.55	230	
RW-51	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	0.92	-79	370	--	--	5.1	37	2.8	4.4	<0.25	200	
RW-51	--	--	04/03/12	--	--	<0.50	<0.50	<0.50	<1.0	0.60	<0.50	<0.50	<0.50	41	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-51	--	--	05/04/12	--	--	--	--	--	--	--	--	--	--	--	--	0.77	-57	330	--	--	8.2	45	1.8	4.6	<0.25	210	
RW-51	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	0.67	<0.50	<0.50	<0.50	33	--	--	--	340	--	--	--	--	--	<0.040	<0.22	190	
RW-51	--	--	06/07/12	--	--	<0.50	<0.50	<0.50	<1.0	0.58	<0.50	<0.50	<0.50	24	--	--	--	--	--	--	--	--	--	--	0.91	--	
RW-51	--	--	07/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.74	<0.50	<0.50	<0.50	21	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-51	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.68	-88	350	--	--	4.8	77	3.0	4.7	<0.25	200	
RW-51	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	0.53	<0.50	<0.50	<0.50	20	--	--	--	330	--	--	--	--	--	<0.040	<0.22	150	
RW-51	--	--	11/12/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled
RW-51	--	--	11/27/12	--	--	<0.50	<0.50	<0.50	<1.0	0.67	<0.50	<0.50	<0.50	23	--	--	--	320	--	--	--	--	--	<0.040	<0.55	280	
RW-51	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	0.67	<0.50	<0.50	<0.50	29	--	--	--	320	--	--	--	--	--	<0.040	<0.55	240	
RW-51	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	--	0.89	-50	360	--	--	4.7	<10	2.0	0.16	<0.25	220	
RW-51-DUP	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	0.68	<0.50	<0.50	<0.50	26	--	--	--	--	--	--	--	--	--	--	--	--	
RW-51	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	25	--	--	--	320	--	--	--	--	--	<0.040	<0.22	210	
RW-51	--	--	05/10/13	--	--	--	--	--	--	--	--	--	--	--	--	3.76	-69	360	--	--	4.9	35	3.6	0.26	<0.25	230	

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Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
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Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
RW-51	--	--	05/21/13	--	--	<0.50	<0.50	<0.50	<1.0	0.76	<0.50	<0.50	<0.50	23	--	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-51	--	--	06/18/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.040	--	--		
RW-51	--	--	06/19/13	--	--	<0.50	<0.50	<0.50	<1.0	0.78	<0.50	<0.50	<0.50	21	--	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-51	--	--	07/02/13	--	--	<0.50	<0.50	<0.50	<1.0	0.60	<0.50	<0.50	<0.50	19	--	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-51	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	0.82	<0.50	<0.50	<0.50	18	<150	--	--	310	--	--	--	--	--	--	<0.040	<0.11	230	
RW-51	--	--	08/07/13	--	--	--	--	--	--	--	--	--	--	--	5.08	--	-62	330	--	--	6.6	28	2.2	0.14	<0.25	230		
RW-51	--	--	09/10/13	--	--	<0.50	<0.50	<0.50	<1.0	0.70	<0.50	<0.50	<0.50	15	--	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-51	--	--	10/08/13	--	--	<0.50	<0.50	<0.50	<1.0	0.97	<0.50	<0.50	<0.50	22	--	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-51	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	0.80	<0.50	<0.50	<0.50	16	--	--	--	330	--	--	--	--	--	--	<0.040	<0.11	210	
RW-51	--	--	11/13/13	--	--	--	--	--	--	--	--	--	--	--	1.28	-83	320	--	--	4.7	24	0.8	0.19	<0.25	230			
RW-51	--	--	12/03/13	--	--	<0.50	<0.50	<0.50	<1.0	0.67	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	1.0	--		
RW-51	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	0.58	<0.50	<0.50	<0.50	12	--	0.45	-2	350	--	--	4.9	28	0.5	0.091	<0.25	330		
RW-51-DUP	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	0.61	<0.50	<0.50	<0.50	13	--	--	--	--	--	--	--	--	--	--	--	--		
RW-51	--	--	05/09/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.76	-45	110	--	--	15	<10	1.2	0.19	1.2	160		
RW-51	--	--	08/05/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.65	-56	120	--	--	14	29	0.0	0.14	0.28	160		
RW-51	--	--	11/06/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.33	-56	76	--	--	30	<10	1.6	0.075	1.3	110		
RW-56	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	--	--	--	360	--	--	--	--	--	<0.040	2.0	290		
RW-56	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW-56	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	0.86	<0.50	<0.50	<0.50	<10	--	--	--	370	--	--	--	--	--	<0.040	1.1	260		
RW-56-DUP	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW-56-DUP	--	--	05/11/12	--	--	--	--	--	--	0.97	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--		
RW-56	--	--	06/26/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.040	--	--		
RW-56	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	<10	--	--	--	370	--	--	--	--	--	<0.040	0.61	260		
RW-56	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	0.98	<0.50	<0.50	<0.50	<10	--	--	--	350	--	--	--	--	--	<0.040	0.55	250		
RW-56	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	1.0	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	--	--	--	<0.040	<0.55	260		
RW-56	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	0.90	<0.50	<0.50	<0.50	<10	<150	--	--	340	--	--	--	--	--	<0.040	<0.22	250		
RW-56	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	<150	--	--	370	--	--	--	--	--	<0.040	<0.11	250		

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters																											
Mission Valley Terminal, San Diego, CA																											
ARCADIS CM010143.0175																											
Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO ₃) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
RW-56	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	1.6	<0.50	<0.50	<0.50	<10	--	--	--	430	--	--	--	--	--	<0.040	0.36	270	
RW-56	--	--	02/04/14	--	--	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<0.50	<0.50	<10	--	--	--	380	--	--	--	--	--	<0.040	0.73	270	
RW-56	--	--	05/16/14	--	--	<0.50	<0.50	<0.50	<1.0	1.6	<0.50	<0.50	<0.50	<10	<150	--	--	370	--	--	--	--	--	<0.040	0.27	270	
RW-56	--	--	08/05/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.18	127	--	--	--	--	--	--	--	--	--	
RW-56	--	--	11/06/14	--	--	<0.50	<0.50	<0.50	<1.0	0.67	<0.50	<0.50	<0.50	<10	--	0.35	91	260	--	--	5.5	<10	0.0	<0.050	6.0	260	
RW-99	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	2.6	<0.50	<0.50	<0.50	120	--	--	--	--	--	--	--	--	--	--	--	--	
RW-99-DUP	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	2.6	<0.50	<0.50	<0.50	120	--	--	--	--	--	--	--	--	--	--	--	--	
RW-99	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	1.9	<0.50	<0.50	<0.50	130	--	--	--	360	--	--	--	--	--	0.13	<0.55	250	
RW-99	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	0.94	-47	400	--	--	4.1	18	1.4	1.4	<0.25	240	
RW-99	--	--	04/03/12	--	--	<0.50	<0.50	<0.50	<1.0	2.0	<0.50	<0.50	<0.50	110	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-99	--	--	05/04/12	--	--	--	--	--	--	--	--	--	--	--	--	0.25	-43	150	--	--	8.0	18	1.4	1.3	<0.25	260	
RW-99	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	1.7	<0.50	<0.50	<0.50	66	--	--	--	330	--	--	--	--	--	<0.040	0.22	270	
RW-99	--	--	06/07/12	--	--	<0.50	<0.50	<0.50	<1.0	1.9	<0.50	<0.50	<0.50	67	--	--	--	--	--	--	--	--	--	--	1.0	--	
RW-99	--	--	07/10/12	--	--	<0.50	<0.50	<0.50	<1.0	2.6	<0.50	<0.50	<0.50	87	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-99	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.60	-54	410	--	--	4.5	25	1.6	1.3	<0.25	240	
RW-99	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	3.8	<0.50	<0.50	<0.50	20	--	--	--	380	--	--	--	--	--	<0.040	<0.22	250	
RW-99	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	2.7	<0.50	<0.50	<0.50	15	--	0.81	-47	380	--	--	5.4	39	1.8	1.2	<0.55	300	
RW-99	--	--	02/15/13	--	--	<0.50	<0.50	<0.50	<1.0	2.5	<0.50	<0.50	<0.50	<10	--	--	--	350	--	--	--	--	--	<0.040	<0.22	270	
RW-99	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	--	0.60	8	410	--	--	4.3	36	0.2	0.75	<0.25	260	
RW-99	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	1.8	<0.50	<0.50	<0.50	<10	--	--	--	380	--	--	--	--	--	<0.040	<0.55	210	
RW-99	--	--	05/10/13	--	--	--	--	--	--	--	--	--	--	--	--	0.95	-44	420	--	--	4.6	63	1.3	0.78	<0.25	250	
RW-99	--	--	05/21/13	--	--	<0.50	<0.50	<0.50	<1.0	2.1	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-99	--	--	06/19/13	--	--	<0.50	<0.50	<0.50	<1.0	1.6	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	0.31	<0.22	--	
RW-99	--	--	07/02/13	--	--	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-99	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	1.9	<0.50	<0.50	<0.50	<10	<150	--	--	380	--	--	--	--	--	<0.040	<0.22	270	
RW-99	--	--	08/07/13	--	--	--	--	--	--	--	--	--	--	--	--	0.47	-46	430	--	--	4.7	83	1.4	0.96	<0.25	260	
RW-99	--	--	09/10/13	--	--	<0.50	<0.50	<0.50	<1.0	1.5	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.55	--		

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
RW-99	--	--	10/08/13	--	--	<0.50	<0.50	<0.50	<1.0	1.6	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-99	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<0.50	<10	--	--	--	420	--	--	--	--	--	<0.040	<0.11	250	
RW-99	--	--	11/13/13	--	--	--	--	--	--	--	--	--	--	--	0.91	59	360	--	--	5.1	<10	0.0	<0.050	<0.25	280		
RW-99	--	--	12/03/13	--	--	<0.50	<0.50	<0.50	<1.0	0.89	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-99	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	--	0.20	-9.8	360	--	--	5.0	47	1.4	0.61	<0.25	270	
RW-99	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	<10	--	0.81	-36	380	--	--	4.2	41	1.4	0.80	<0.55	340	
RW-99	--	--	08/06/14	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	<10	--	0.40	-48	360	--	--	5.1	45	0.8	1.2	<0.25	270	
RW-99	--	--	11/11/14	--	--	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<0.50	<0.50	<10	--	0.50	-59	370	--	--	4.9	56	2.6	0.57	<0.25	280	
RW-100	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	1.5	<0.50	<0.50	<0.50	34	--	--	--	--	--	--	--	--	--	--	--	--	
RW-100	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.96	<0.50	<0.50	<0.50	39	--	--	--	370	--	--	--	--	--	0.51	<0.55	250	
RW-100	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	1.22	-94	410	--	--	4.8	18	2.6	4.5	<0.25	240		
RW-100	--	--	03/06/12	--	--	<0.500	<0.500	<0.500	<1.00	1.05	<0.500	<0.500	<0.500	43.5	--	--	--	--	--	--	--	--	--	--	<0.550	--	
RW-100	--	--	04/03/12	--	--	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<0.50	35	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-100	--	--	05/04/12	--	--	--	--	--	--	--	--	--	--	--	0.24	-78	380	--	--	8.3	17	3.6	5.4	<0.25	250		
RW-100	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<0.50	18	--	--	--	350	--	--	--	--	--	<0.040	<0.22	270	
RW-100	--	--	06/07/12	--	--	<0.50	<0.50	<0.50	<1.0	1.6	<0.50	<0.50	<0.50	12	--	--	--	--	--	--	--	--	--	--	0.91	--	
RW-100	--	--	07/10/12	--	--	<0.50	<0.50	<0.50	<1.0	1.9	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-100	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	0.81	-88	400	--	--	4.7	20	4.2	4.5	<0.25	240		
RW-100	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	3.2	<0.50	<0.50	<0.50	15	--	--	--	360	--	--	--	--	--	<0.040	<0.22	240	
RW-100	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	2.5	<0.50	<0.50	<0.50	<10	--	0.78	-76	390	--	--	5.3	20	3.8	4.1	<0.55	300	
RW-100	--	--	02/15/13	--	--	<0.50	<0.50	<0.50	<1.0	1.8	<0.50	<0.50	<0.50	<10	--	--	--	330	--	--	--	--	--	<0.040	<0.22	270	
RW-100	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	0.52	-67	380	--	--	4.5	17	1.4	3.9	<0.25	230		
RW-100	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	2.2	<0.50	<0.50	<0.50	10	--	--	--	340	--	--	--	--	--	<0.040	<0.55	280	
RW-100	--	--	05/10/13	--	--	--	--	--	--	--	--	--	--	--	4.78	-79	360	--	--	4.4	18	4.0	0.31	0.62	450		
RW-100	--	--	05/21/13	--	--	<0.50	<0.50	<0.50	<1.0	1.5	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-100	--	--	06/18/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.040	--	--	
RW-100	--	--	06/19/13	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	

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Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters																											
Mission Valley Terminal, San Diego, CA																											
ARCADIS CM010143.0175																											
Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
RW-100	--	--	07/02/13	--	--	<0.50	<0.50	<0.50	<1.0	0.91	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-100	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	1.5	<0.50	<0.50	<0.50	<10	<150	--	--	340	--	--	--	--	--	<0.040	<0.11	240	
RW-100	--	--	08/07/13	--	--	--	--	--	--	--	--	--	--	--	--	0.89	-95	360	--	--	5.2	41	3.4	3.5	<0.25	230	
RW-100	--	--	09/10/13	--	--	<0.50	<0.50	<0.50	<1.0	0.95	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-100	--	--	10/08/13	--	--	<0.50	<0.50	<0.50	<1.0	0.94	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-100	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	0.79	<0.50	<0.50	<0.50	<10	--	--	--	360	--	--	--	--	--	<0.040	<0.11	230	
RW-100	--	--	11/12/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	360	--	--	11	66	--	3.1	<0.25	230	
RW-100	--	--	12/03/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-100	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	0.62	<0.50	<0.50	<0.50	<10	--	0.46	26	360	--	--	4.9	79	0.0	<0.050	<0.25	240	
RW-100	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	1.13	2	320	--	--	4.8	130	1.2	0.17	<0.25	250	
RW-100	--	--	08/06/14	--	--	<0.50	<0.50	<0.50	<1.0	0.50	<0.50	<0.50	<0.50	<10	--	0.31	-14	320	--	--	5.2	60	0.0	0.94	<0.25	440	
RW-100	--	--	11/10/14	--	--	<0.50	<0.50	<0.50	<1.0	0.53	<0.50	<0.50	<0.50	<10	--	0.89	-7	360	--	--	4.6	43	0.8	4.8	<0.25	310	
RW-101	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	0.84	-73	390	--	--	4.1	18	2.8	4.6	<0.25	240	
RW-101	--	--	02/17/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	140	--	--	--	360	--	--	--	--	--	2.0	<0.22	250	
RW-101	--	--	04/03/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	180	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-101	--	--	05/04/12	--	--	--	--	--	--	--	--	--	--	--	--	0.33	-68	390	--	--	7.3	17	2.4	4.8	<0.25	230	
RW-101	--	--	05/15/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	150	--	--	--	360	--	--	--	--	--	1.5	<0.22	250	
RW-101	--	--	06/07/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	140	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-101	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.78	-94	360	--	--	3.9	38	4.8	4.4	<0.25	250	
RW-101	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	69	--	--	--	330	--	--	--	--	--	0.17	<0.22	260	
RW-101	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	0.70	<0.50	<0.50	<0.50	19	--	1.16	-75	340	--	--	4.1	94	5.0	4.8	<0.55	340	
RW-101	--	--	02/15/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	11	--	--	--	330	--	--	--	--	--	<0.040	<0.22	290	
RW-101	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	--	0.70	-53	370	--	--	5.5	76	2.6	3.9	<0.25	290	
RW-101	--	--	04/26/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	<150	--	--	320	--	--	--	--	--	<0.040	<0.22	280	
RW-101	--	--	05/10/13	--	--	--	--	--	--	--	--	--	--	--	--	1.06	-102	370	--	--	4.7	78	4.2	2.8	<0.25	250	
RW-101	--	--	05/21/13	--	--	<0.50	<0.50	<0.50	<1.0	0.53	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-101	--	--	06/19/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.040	<0.22	--	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
RW-101	--	--	07/02/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-101	--	--	08/08/13	--	--	<0.50	<0.50	<0.50	<1.0	0.59	<0.50	<0.50	<0.50	<10	--	--	--	300	--	--	--	--	--	0.095	0.18	250	
RW-101	--	--	08/09/13	--	--	--	--	--	--	--	--	--	--	--	3.23	38	360	--	--	1.4	17	0.0	<0.050	<0.25	230		
RW-101	--	--	09/10/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-101	--	--	10/08/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-101	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	11	--	--	--	350	--	--	--	--	--	0.66	<0.11	230	
RW-101	--	--	11/13/13	--	--	--	--	--	--	--	--	--	--	--	0.53	-92	340	--	--	4.4	58	0.0	3.1	<0.25	240		
RW-101	--	--	12/03/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-101	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.22	-86	330	--	--	5.4	72	3.0	2.7	<0.25	270	
RW-101	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	10	--	0.77	-79	330	--	--	4.7	67	3.4	3.0	<0.25	250	
RW-101	--	--	08/06/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.77	-70	440	--	--	9.7	120	0.0	3.4	<0.25	250	
RW-101	--	--	11/11/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	1.06	-100	220	--	--	19	96	2.2	4.7	<0.25	54	
RW-107	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	<10	--	--	--	310	--	--	--	--	--	<0.040	<0.55	320	
RW-107	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW-107	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	0.91	<0.50	<0.50	<0.50	<10	--	--	--	320	--	--	--	--	--	<0.040	0.44	310	
RW-107	--	--	06/25/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.040	--	--	
RW-107	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	1.0	<0.50	<0.50	<0.50	<10	--	--	--	300	--	--	--	--	--	<0.040	<0.22	280	
RW-107	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	0.96	<0.50	<0.50	<0.50	<10	--	--	--	300	--	--	--	--	--	<0.040	<0.55	340	
RW-107	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	<10	--	--	--	310	--	--	--	--	--	<0.040	<0.55	260	
RW-107	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	0.93	<0.50	<0.50	<0.50	<10	<150	--	--	350	--	--	--	--	--	<0.040	<0.55	250	
RW-107	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	0.94	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.040	<0.11	260	
RW-107	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	0.86	<0.50	<0.50	<0.50	<10	--	--	--	410	--	--	--	--	--	<0.040	<0.11	270	
RW-107	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	0.75	<0.50	<0.50	<0.50	<10	--	--	--	380	--	--	--	--	--	<0.040	0.66	270	
RW-107	--	--	05/16/14	--	--	<0.50	<0.50	<0.50	<1.0	0.85	<0.50	<0.50	<0.50	<10	<150	--	--	380	--	--	--	--	--	<0.040	<0.22	270	
RW-107	--	--	08/04/14	--	--	<0.50	3.3	<0.50	<1.0	0.63	<0.50	<0.50	<0.50	<10	--	0.54	-51	--	--	--	--	--	--	--	--	--	
RW-107	--	--	11/07/14	--	--	<0.50	1.4	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.33	-63	430	--	--	6.5	180	1.6	0.74	<0.25	210	
RW-108	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	2.7	<0.50	<0.50	<0.50	<10	--	--	--	360	--	--	--	--	--	<0.040	0.70	310	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO ₃) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
RW-108	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RW-108	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	2.9	<0.50	<0.50	<0.50	<10	--	--	--	360	--	--	--	--	--	<0.040	0.51	310	--
RW-108	--	--	06/25/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.040	--	--	--
RW-108	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	1.8	<0.50	<0.50	<0.50	<10	--	--	--	360	--	--	--	--	--	<0.040	0.65	330	--
RW-108	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	1.7	<0.50	<0.50	<0.50	<10	--	--	--	360	--	--	--	--	--	<0.040	<1.1	290	--
RW-108	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	2.1	<0.50	<0.50	<0.50	<10	--	--	--	370	--	--	--	--	--	<0.040	0.65	280	--
RW-108-DUP	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	2.2	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
RW-108	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	1.5	<0.50	<0.50	<0.50	<10	--	--	--	370	--	--	--	--	--	<0.040	0.85	270	--
RW-108	--	--	08/07/13	--	--	<0.50	<0.50	<0.50	<1.0	1.6	<0.50	<0.50	<0.50	<10	<150	--	--	360	--	--	--	--	--	<0.040	0.31	270	--
RW-108	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	--	--	--	410	--	--	--	--	--	<0.040	0.20	290	--
RW-108	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	1.3	<0.50	<0.50	<0.50	<10	--	--	--	350	--	--	--	--	--	0.091	<0.11	260	--
RW-108	--	--	05/16/14	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	<150	--	--	340	--	--	--	--	--	<0.040	0.35	300	--
RW-108	--	--	08/05/14	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	<10	--	1.72	-16	--	--	--	--	--	--	--	--	--	--
RW-108	--	--	11/10/14	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	<10	--	0.76	83	340	--	--	4.1	<10	0.0	<0.050	<0.25	310	--
RW-109	--	--	01/31/12	--	--	<0.50	<0.50	<0.50	<1.0	0.97	<0.50	<0.50	<0.50	15	--	--	--	--	--	--	--	--	--	--	--	--	--
RW-109	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	22	--	--	--	340	--	--	--	--	--	0.15	<0.55	320	--
RW-109	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	0.75	-8	350	--	--	3.3	<10	0.4	0.36	<0.25	300	--	--
RW-109	--	--	03/06/12	--	--	<0.500	<0.500	<0.500	<1.00	0.836	<0.500	<0.500	<0.500	16.3	--	--	--	--	--	--	--	--	--	--	<0.550	--	--
RW-109	--	--	04/03/12	--	--	<0.50	<0.50	<0.50	<1.0	0.78	<0.50	<0.50	<0.50	17	--	--	--	--	--	--	--	--	--	--	<0.55	--	--
RW-109	--	--	05/04/12	--	--	--	--	--	--	--	--	--	--	--	0.26	-29	370	--	--	6.8	<10	0.6	0.29	<0.25	310	--	--
RW-109	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	0.53	<0.50	<0.50	<0.50	22	--	--	--	350	--	--	--	--	--	<0.040	0.29	330	--
RW-109	--	--	06/07/12	--	--	<0.50	<0.50	<0.50	<1.0	0.76	<0.50	<0.50	<0.50	14	--	--	--	--	--	--	--	--	--	--	<0.55	--	--
RW-109	--	--	07/10/12	--	--	<0.50	<0.50	<0.50	<1.0	1.2	<0.50	<0.50	<0.50	14	--	--	--	--	--	--	--	--	--	--	<0.22	--	--
RW-109	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	0.80	-1	370	--	--	3.4	15	0.0	0.057	<0.25	280	--	--
RW-109	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	2.7	<0.50	<0.50	<0.50	29	--	--	--	340	--	--	--	--	--	<0.040	<0.22	320	--
RW-109	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	2.4	<0.50	<0.50	<0.50	13	--	0.81	0	370	--	--	3.8	<10	0.0	<0.050	<1.1	300	--
RW-109	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	2.5	<0.50	<0.50	<0.50	12	--	--	--	350	--	--	--	--	--	<0.040	<0.55	290	--

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Mission Valley Terminal, San Diego, CA
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Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
RW-109	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	1.09	-29	370	--	--	3.9	<10	0.0	<0.050	<0.25	330			
RW-109	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	2.4	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	--	--	--	<0.040	<0.55	280		
RW-109	--	--	05/10/13	--	--	--	--	--	--	--	--	--	--	--	2.76	3	390	--	--	3.8	19	0.0	<0.050	<0.25	270			
RW-109	--	--	05/21/13	--	--	<0.50	<0.50	<0.50	<1.0	2.5	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-109	--	--	06/19/13	--	--	<0.50	<0.50	<0.50	<1.0	1.9	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.040	<0.22	--		
RW-109	--	--	07/02/13	--	--	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-109	--	--	08/08/13	--	--	<0.50	<0.50	<0.50	<1.0	0.86	<0.50	<0.50	<0.50	17	--	--	--	340	--	--	--	--	--	<0.040	<0.22	260		
RW-109	--	--	08/09/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
RW-109	--	--	09/10/13	--	--	<0.50	<0.50	<0.50	<1.0	1.6	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-109	--	--	10/08/13	--	--	<0.50	<0.50	<0.50	<1.0	2.1	<0.50	<0.50	<0.50	29	--	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-109	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	1.7	<0.50	<0.50	<0.50	22	--	--	--	390	--	--	--	--	--	<0.040	<0.11	280		
RW-109	--	--	11/14/13	--	--	--	--	--	--	--	--	--	--	--	0.96	118	390	--	--	3.6	24	0.0	0.18	<0.25	300			
RW-109	--	--	12/03/13	--	--	<0.50	<0.50	<0.50	<1.0	1.6	<0.50	<0.50	<0.50	25	--	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-109	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	1.7	<0.50	<0.50	<0.50	24	--	0.17	22.9	350	--	--	3.3	<10	1.0	0.20	<0.25	340		
RW-109	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	1.5	<0.50	<0.50	<0.50	<10	--	0.69	-20	350	--	--	3.3	15	1.2	0.41	<0.25	380		
RW-109	--	--	08/05/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	21	--	0.10	-87	390	--	--	10	1,000	0.8	1.3	<0.25	270		
RW-109	--	--	11/07/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	21	--	0.36	-53	410	--	--	9.2	1,100	2.6	0.83	<0.25	260		
RW-110	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.66	<0.50	<0.50	<0.50	20	--	--	--	--	--	--	--	--	--	--	--	--		
RW-110	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.56	<0.50	<0.50	<0.50	28	--	--	--	340	--	--	--	--	--	<0.040	1.7	390		
RW-110	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	1.03	-17	350	--	--	2.8	<10	0.8	0.24	1.4	380			
RW-110	--	--	03/06/12	--	--	<0.500	<0.500	<0.500	<1.00	0.771	<0.500	<0.500	<0.500	17.5	--	--	--	--	--	--	--	--	--	--	2.06	--		
RW-110	--	--	04/03/12	--	--	<0.50	<0.50	<0.50	<1.0	0.85	<0.50	<0.50	<0.50	19	--	--	--	--	--	--	--	--	--	--	1.9	--		
RW-110	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<0.50	<0.50	<10	--	--	--	340	--	--	5.9	<10	--	<0.050	1.7	400		
RW-110	--	--	06/07/12	--	--	<0.50	<0.50	<0.50	<1.0	1.8	<0.50	<0.50	<0.50	11	--	--	--	--	--	--	--	--	--	--	1.8	--		
RW-110	--	--	07/10/12	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	1.9	--		
RW-110	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	0.71	-16	360	--	--	3.6	<10	0.0	0.12	1.1	340			
RW-110	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	0.98	<0.50	<0.50	<0.50	43	--	--	--	330	--	--	--	--	--	<0.040	1.5	340		

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
RW-110	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	4.1	<0.50	<0.50	<0.50	12	--	1.09	0	340	--	--	2.6	<10	0.0	0.082	2.0	410	
RW-110	--	--	02/15/13	--	--	<0.50	<0.50	<0.50	<1.0	7.8	<0.50	<0.50	<0.50	<10	--	--	--	300	--	--	--	--	--	<0.040	0.97	440	
RW-110	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	--	0.34	-5	340	--	--	3.6	<10	0.0	0.13	0.70	470	
RW-110	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	5.7	<0.50	<0.50	<0.50	<10	--	--	--	300	--	--	--	--	--	<0.040	0.95	410	
RW-110	--	--	05/10/13	--	--	--	--	--	--	--	--	--	--	--	--	1.59	-5	350	--	--	2.7	<10	0.0	0.054	<0.25	240	
RW-110	--	--	05/21/13	--	--	<0.50	<0.50	<0.50	<1.0	5.6	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	0.74	--
RW-110	--	--	06/19/13	--	--	<0.50	<0.50	<0.50	<1.0	5.6	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.040	0.92	--	
RW-110	--	--	07/02/13	--	--	<0.50	<0.50	<0.50	<1.0	6.0	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	0.67	--
RW-110	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	6.4	<0.50	<0.50	<0.50	<10	<150	--	--	310	--	--	--	--	--	<0.040	0.63	420	
RW-110	--	--	08/07/13	--	--	--	--	--	--	--	--	--	--	--	--	6.25	9	350	--	--	2.9	<10	0.0	<0.050	0.54	450	
RW-110	--	--	09/10/13	--	--	<0.50	<0.50	<0.50	<1.0	4.9	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	0.55	--
RW-110	--	--	10/08/13	--	--	<0.50	<0.50	<0.50	<1.0	5.2	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	0.81	--
RW-110	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	3.7	<0.50	<0.50	<0.50	<10	--	--	--	350	--	--	--	--	--	<0.040	0.30	440	
RW-110	--	--	11/14/13	--	--	--	--	--	--	--	--	--	--	--	--	0.59	46	340	--	--	2.7	<10	0.0	0.052	0.29	450	
RW-110 (DS#22)	--	--	11/14/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	330	--	--	2.7	<10	--	0.053	0.30	450	Duplicate of RW-110
RW-110	--	--	12/03/13	--	--	<0.50	<0.50	<0.50	<1.0	3.4	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	<0.55	--
RW-110	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	2.1	<0.50	<0.50	<0.50	<10	--	0.07	14.6	330	--	--	3.4	29	1.2	0.23	0.37	400	
RW-110	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	1.7	<0.50	<0.50	<0.50	<10	--	1.09	-28	330	--	--	3.2	28	2.0	0.40	<0.55	390	
RW-110	--	--	08/06/14	--	--	<0.50	<0.50	<0.50	<1.0	0.66	<0.50	<0.50	<0.50	47	--	0.22	-61	420	--	--	11	1,700	2.2	1.2	<0.25	220	
RW-110	--	--	11/10/14	--	--	<0.50	<0.50	<0.50	<1.0	0.67	<0.50	<0.50	<0.50	45	--	1.06	-35	420	--	--	8.4	1,600	1.2	0.28	<0.25	220	
RW-111	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.81	<0.50	<0.50	<0.50	110	--	--	--	--	--	--	--	--	--	--	--	--	
RW-111	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.61	<0.50	<0.50	<0.50	120	--	--	--	390	--	--	--	--	--	0.85	<0.55	260	
RW-111	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	1.00	-83	410	--	--	4.4	16	2.2	4.2	<0.25	230	
RW-111	--	--	03/06/12	--	--	<0.500	<0.500	<0.500	<1.00	0.552	<0.500	<0.500	<0.500	93.2	--	--	--	--	--	--	--	--	--	--	<0.550	--	
RW-111	--	--	04/03/12	--	--	<0.50	<0.50	<0.50	<1.0	0.90	<0.50	<0.50	<0.50	79	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-111	--	--	05/04/12	--	--	--	--	--	--	--	--	--	--	--	--	0.27	-67	410	--	--	7.8	12	3.0	3.9	<0.25	290	
RW-111	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	1.1	<0.50	<0.50	<0.50	32	--	--	--	360	--	--	--	--	--	<0.040	<0.22	300	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
RW-111	--	--	06/07/12	--	--	<0.50	<0.50	<0.50	<1.0	0.97	<0.50	<0.50	<0.50	29	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-111	--	--	06/25/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.5	--	--	
RW-111	--	--	07/10/12	--	--	<0.50	<0.50	<0.50	<1.0	2.0	<0.50	<0.50	<0.50	29	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-111	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	0.54	-89	390	--	--	4.5	14	4.2	3.8	<0.25	270		
RW-111	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	1.7	<0.50	<0.50	<0.50	26	--	--	--	360	--	--	--	--	--	0.57	<0.22	260	
RW-111-DUP	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW-111-DUP	--	--	08/28/12	--	--	--	--	--	--	1.7	<0.50	<0.50	<0.50	29	--	--	--	--	--	--	--	--	--	--	--	--	
RW-111	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	1.7	<0.50	<0.50	<0.50	14	--	1.11	-76	360	--	--	4.6	17	4.0	4.1	<0.55	260	
RW-111	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	1.4	<0.50	<0.50	<0.50	11	--	--	--	330	--	--	--	--	--	0.78	<0.55	250	
RW-111	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	0.67	-68	370	--	--	4.8	16	0.0	4.1	<0.25	280		
RW-111	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	0.75	<0.50	<0.50	<0.50	<10	--	--	--	320	--	--	--	--	--	<0.040	<0.55	230	
RW-111	--	--	05/10/13	--	--	--	--	--	--	--	--	--	--	--	0.72	-95	370	--	--	4.3	49	3.8	3.3	<0.25	270		
RW-111	--	--	05/21/13	--	--	<0.50	<0.50	<0.50	<1.0	0.66	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-111	--	--	06/18/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.26	--	--	
RW-111	--	--	06/19/13	--	--	<0.50	<0.50	<0.50	<1.0	0.51	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-111	--	--	07/02/13	--	--	<0.50	<0.50	<0.50	<1.0	0.52	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-111	--	--	08/06/13	--	--	<0.50	<0.50	<0.50	<1.0	0.70	<0.50	<0.50	<0.50	<10	<150	--	--	340	--	--	--	--	--	<0.040	<0.11	250	
RW-111	--	--	08/07/13	--	--	--	--	--	--	--	--	--	--	--	0.60	-97	350	--	--	4.7	110	2.0	3.9	<0.25	240		
RW-111	--	--	09/10/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-111	--	--	10/08/13	--	--	<0.50	<0.50	<0.50	<1.0	0.64	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	
RW-111	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	370	--	--	--	--	--	0.34	<0.22	210	
RW-111	--	--	11/13/13	--	--	--	--	--	--	--	--	--	--	--	0.42	-82	360	--	--	4.6	140	0.0	2.8	<0.25	230		
RW-111	--	--	12/03/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.55	--	
RW-111	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.23	-105	320	--	--	5.2	210	2.5	3.5	<0.25	280	
RW-111	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.86	-88	310	--	--	4.6	180	2.0	3.6	<0.25	230	
RW-111	--	--	08/06/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	34	--	0.72	-98	380	--	--	9.5	2,000	3.0	2.1	<0.25	180	
RW-111	--	--	11/10/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	35	--	0.85	-109	340	--	--	7.7	1,700	1.2	0.34	<0.25	170	

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Mission Valley Terminal, San Diego, CA
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Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
RW-112	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.81	<0.50	<0.50	<0.50	48	--	--	--	--	--	--	--	--	--	--	--	--	--
RW-112	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.62	<0.50	<0.50	<0.50	49	--	--	--	340	--	--	--	--	--	0.62	<0.55	270	--
RW-112	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	1.15	-76	370	--	--	4.6	20	2.4	3.9	<0.25	240	--	
RW-112	--	--	03/06/12	--	--	<0.500	<0.500	<0.500	<1.00	0.598	<0.500	<0.500	<0.500	31.8	--	--	--	--	--	--	--	--	--	--	<0.550	--	--
RW-112	--	--	05/04/12	--	--	--	--	--	--	--	--	--	--	--	0.27	-81	370	--	--	7.8	17	3.4	3.8	<0.25	240	--	
RW-112	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	0.61	<0.50	<0.50	<0.50	23	--	--	--	350	--	--	--	--	--	<0.040	<0.22	270	--
RW-112	--	--	06/07/12	--	--	<0.50	<0.50	<0.50	<1.0	0.63	<0.50	<0.50	<0.50	24	--	--	--	--	--	--	--	--	--	--	<0.55	--	--
RW-112	--	--	06/25/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.3	--	--	--
RW-112	--	--	07/10/12	--	--	<0.50	<0.50	<0.50	<1.0	1.0	<0.50	<0.50	<0.50	33	--	--	--	--	--	--	--	--	--	--	<0.22	--	--
RW-112	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	0.37	-72	380	--	--	4.4	<10	3.6	0.92	<0.25	220	--	
RW-112	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	0.93	<0.50	<0.50	<0.50	42	--	--	--	350	--	--	--	--	--	0.074	<0.22	220	--
RW-112-DUP	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RW-112	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	0.89	<0.50	<0.50	<0.50	27	--	0.68	-72	360	--	--	4.9	70	3.6	3.8	<0.55	210	--
RW-112-DUP	--	--	11/12/12	--	--	--	--	--	--	0.92	<0.50	<0.50	<0.50	26	--	--	--	--	--	--	--	--	--	--	--	--	--
RW-112	--	--	02/15/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	300	--	--	--	--	--	<0.040	<0.22	230	--
RW-112	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	0.68	-21	350	--	--	5.6	37	2.2	1.3	<0.25	230	--	
RW-112	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	300	--	--	--	--	--	<0.040	<0.22	230	--
RW-112	--	--	05/10/13	--	--	--	--	--	--	--	--	--	--	--	3.81	-114	340	--	--	4.9	26	4.4	0.11	<0.25	250	--	
RW-112	--	--	05/21/13	--	--	<0.50	<0.50	<0.50	<1.0	0.51	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	--
RW-112	--	--	06/19/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	<0.040	<0.22	--	--
RW-112	--	--	07/02/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	--
RW-112	--	--	08/07/13	--	--	<0.50	<0.50	<0.50	<1.0	0.63	<0.50	<0.50	<0.50	<10	<150	3.19	-101	310	--	--	5.4	30	1.6	0.29	<0.25	240	--
RW-112-DUP	--	--	08/07/13	--	--	<0.50	<0.50	<0.50	<1.0	0.57	<0.50	<0.50	<0.50	<10	<150	--	--	--	--	--	--	--	--	--	--	--	--
RW-112	--	--	09/10/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	--
RW-112	--	--	10/08/13	--	--	<0.50	<0.50	<0.50	<1.0	0.52	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.22	--	--
RW-112	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	320	--	--	--	--	--	<0.040	<0.11	240	--
RW-112	--	--	11/13/13	--	--	--	--	--	--	--	--	--	--	--	0.48	-101	320	--	--	4.8	30	2.8	0.40	<0.25	260	--	--

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
RW-112	--	--	12/03/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-112	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	0.69	<0.50	<0.50	<0.50	<10	--	0.27	-85	310	--	--	5.1	76	2.6	2.3	<0.25	250		
RW-112	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	0.85	<0.50	<0.50	<0.50	<10	--	0.88	-92	310	--	--	5.0	60	2.8	2.8	<0.55	280		
RW-112	--	--	08/06/14	--	--	<0.50	<0.50	<0.50	<1.0	0.67	<0.50	<0.50	<0.50	<10	--	0.95	-105	310	--	--	6.1	690	2.8	3.0	<0.25	250		
RW-112	--	--	11/11/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.98	-100	200	--	--	21	98	1.6	1.2	<0.25	160		
RW-113	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	98	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW-113	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	87	--	--	--	340	--	--	--	--	--	0.18	<0.55	330		
RW-113	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	--	1.14	-64	360	--	--	3.7	<10	3.4	4.3	<0.25	320		
RW-113	--	--	03/06/12	--	--	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	68.8	--	--	--	--	--	--	--	--	--	--	<0.550	--		
RW-113	--	--	04/03/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	77	--	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-113	--	--	05/04/12	--	--	--	--	--	--	--	--	--	--	--	--	0.34	-71	360	--	--	7.2	17	2.8	4.3	<0.25	330		
RW-113	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	44	--	--	--	340	--	--	--	--	--	0.071	<0.22	330		
RW-113	--	--	06/07/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	45	--	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-113	--	--	06/25/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.5	--	--		
RW-113	--	--	07/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.60	<0.50	<0.50	<0.50	44	--	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-113	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	--	0.47	-84	350	--	--	3.8	78	2.6	4.2	<0.25	280		
RW-113	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	24	--	--	--	320	--	--	--	--	--	<0.040	<0.22	300		
RW-113	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	0.55	<0.50	<0.50	<0.50	14	--	0.88	-68	330	--	--	4.7	78	3.6	3.1	<0.55	240		
RW-113	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	320	--	--	--	--	--	1.2	<0.55	240		
RW-113	--	--	02/25/13	--	--	--	--	--	--	--	--	--	--	--	--	0.62	-64	340	--	--	5.7	32	0.8	3.2	<0.25	250		
RW-113	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	310	--	--	--	--	--	<0.040	0.62	210		
RW-113	--	--	05/10/13	--	--	--	--	--	--	--	--	--	--	--	--	1.12	-104	330	--	--	5.0	38	4.0	2.3	<0.25	230		
RW-113	--	--	05/21/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	12	--	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-113	--	--	06/18/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.040	--	--		
RW-113	--	--	06/19/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	12	--	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-113	--	--	07/02/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	12	--	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-113	--	--	08/07/13	--	--	0.53	<0.50	<0.50	<1.0	0.59	<0.50	<0.50	<0.50	11	<150	0.60	-98	370	--	--	4.8	42	1.6	3.2	<0.25	240		

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
RW-113	--	--	09/10/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	12	--	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-113	--	--	10/08/13	--	--	<0.50	<0.50	<0.50	<1.0	0.52	<0.50	<0.50	<0.50	13	--	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-113	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	15	--	--	--	370	--	--	--	--	--	0.059	<0.11	230		
RW-113	--	--	11/14/13	--	--	--	--	--	--	--	--	--	--	--	--	0.58	-96	380	--	--	4.4	50	0.8	3.1	<0.25	240		
RW-113	--	--	12/03/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	19	--	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-113	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	35	--	0.36	-93	330	--	--	5.3	49	3.5	2.9	<0.25	250		
RW-113	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	33	--	0.56	-84	360	--	--	5.3	51	2.2	2.8	<0.25	250		
RW-113	--	--	08/05/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	14	--	0.36	-102	330	--	--	8.0	970	0.6	0.89	<0.25	180		
RW-113	--	--	11/11/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.55	-102	330	--	--	7.5	960	0.6	0.064	<0.25	190		
RW-114	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	0.50	<0.50	<0.50	<0.50	190	--	--	--	--	--	--	--	--	--	--	--	--	--	
RW-114	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	110	--	--	--	350	--	--	--	--	--	0.95	<0.55	290		
RW-114	--	--	02/14/12	--	--	--	--	--	--	--	--	--	--	--	1.05	-67	360	--	--	4.2	24	2.4	5.4	<0.25	260			
RW-114	--	--	03/06/12	--	--	<0.500	<0.500	<0.500	<1.00	<0.500	<0.500	<0.500	<0.500	98.8	--	--	--	--	--	--	--	--	--	--	<0.550	--		
RW-114	--	--	04/03/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	110	--	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-114	--	--	05/04/12	--	--	--	--	--	--	--	--	--	--	--	0.16	-100	350	--	--	8.2	32	3.0	2.4	<0.25	250			
RW-114	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	59	--	--	--	330	--	--	--	--	--	0.077	<0.22	280		
RW-114	--	--	06/07/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	61	--	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-114	--	--	06/25/12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.8	--	--			
RW-114	--	--	07/10/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	66	--	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-114	--	--	08/16/12	--	--	--	--	--	--	--	--	--	--	--	0.59	-101	370	--	--	4.6	38	4.4	4.8	<0.25	230			
RW-114	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	110	--	--	--	340	--	--	--	--	--	0.39	<0.22	250		
RW-114	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	0.51	<0.50	<0.50	<0.50	88	--	1.09	-67	390	--	--	5.1	29	3.4	4.4	<0.55	230		
RW-114	--	--	02/15/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	100	--	--	--	340	--	--	--	--	--	<0.040	0.24	250		
RW-114	--	--	02/22/13	--	--	--	--	--	--	--	--	--	--	--	0.76	-72	360	--	--	5.6	20	4.0	3.7	<0.25	260			
RW-114	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	90	--	--	--	360	--	--	--	--	--	<0.040	<0.22	240		
RW-114	--	--	05/10/13	--	--	--	--	--	--	--	--	--	--	--	1.34	-95	380	--	--	5.5	60	4.8	4.3	<0.25	250			
RW-114	--	--	05/21/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	100	--	--	--	--	--	--	--	--	--	--	<0.22	--		

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Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
RW-114-Filtered	--	--	06/18/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.040	--	--			
RW-114	--	--	06/18/13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.040	--	--		
RW-114	--	--	06/25/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	120	--	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-114	--	--	07/02/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	110	--	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-114	--	--	08/07/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	100	<150	4.73	-64	370	--	--	5.6	87	2.0	1.5	1.2	230		
RW-114	--	--	09/10/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	100	--	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-114	--	--	10/08/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	100	--	--	--	--	--	--	--	--	--	--	<0.22	--		
RW-114	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	90	--	--	--	340	--	--	--	--	--	<0.040	<0.11	240		
RW-114	--	--	11/06/13	--	--	--	--	--	--	--	--	--	--	--	--	--	-97	340	--	--	9.1	150	2.5	0.68	<0.25	250		
RW-114	--	--	12/03/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	82	--	--	--	--	--	--	--	--	--	--	<0.55	--		
RW-114	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	79	--	0.51	-95	310	--	--	5.4	230	3.0	5.2	<0.25	230		
RW-114	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	48	--	1.83	-74	310	--	--	5.7	310	3.2	5.0	<0.25	280		
RW-114	--	--	08/06/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	1.07	-35	280	--	--	7.8	400	3.0	3.0	<0.25	260		
RW-114	--	--	11/11/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	0.48	-104	280	--	--	5.5	170	2.8	7.7	<0.25	270		
Equipment Blanks																												
Equipment Blank	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--		
PB#1	--	--	01/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--		
PB#1	--	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--		
PB#2	--	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--		
PB#3	--	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--		
PB#4	--	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--		
PB#5	--	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--		
PB#6	--	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--		
PB#7	--	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--		
PB#8	--	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--		
PB#9	--	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--		

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
Equipment Blanks																												
Equipment Blank	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#10	--	--	02/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#11	--	--	02/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#12	--	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#13	--	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#14	--	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#15	--	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#16	--	--	02/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	03/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	04/04/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#2	--	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#3	--	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#4	--	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#5	--	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#6	--	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#7	--	--	04/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#8	--	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#10	--	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#9	--	--	05/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#11	--	--	05/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#12	--	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#13	--	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#14	--	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#15	--	--	05/04/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
Equipment Blanks																											
Equipment Blank	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	06/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	07/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#2	--	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#3	--	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#4	--	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#5	--	--	08/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#6	--	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#7	--	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#8	--	--	08/10/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#9	--	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#10	--	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#11	--	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#12	--	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#13	--	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#14	--	--	08/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#15	--	--	08/17/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#16	--	--	08/17/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
Equipment Blank	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	09/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	09/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	10/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#2	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--

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Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
Equipment Blanks																												
PB#3	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#4	--	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#5	--	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#6	--	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#7	--	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#8	--	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#9	--	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#10	--	--	11/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#11	--	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#12	--	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#13	--	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#14	--	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#15	--	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#16	--	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#17	--	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#18	--	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Equipment Blank	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#19	--	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#20	--	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	12/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	01/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Equipment Blank	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	02/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#2	--	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#3	--	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments		
Equipment Blanks																													
PB#4	--	--	02/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#5	--	--	02/18/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#6	--	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#7	--	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#8	--	--	02/20/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#9	--	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#10	--	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#11	--	--	02/22/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#12	--	--	02/25/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#13	--	--	02/26/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#14	--	--	02/27/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#1	--	--	03/14/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Equipment Blank	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#1	--	--	04/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#1	--	--	04/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#2	--	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#3	--	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#4	--	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#5	--	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#6	--	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#7	--	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#8	--	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#9	--	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#10	--	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#11	--	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
Equipment Blanks																												
PB#12	--	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#13	--	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#14	--	--	05/09/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#1	--	--	06/11/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#1	--	--	07/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#1	--	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#2	--	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#3	--	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#4	--	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#5	--	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#6	--	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#7	--	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#8	--	--	08/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#9	--	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#10	--	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#11	--	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#12	--	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
Equipment Blank	--	--	08/07/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	<150	--	--	--	--	--	--	--	--	--	--	--	--	
PB#14	--	--	08/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#1	--	--	09/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#1	--	--	10/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#1	--	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#2	--	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#3	--	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#4	--	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	

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Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
Equipment Blanks																												
PB#5	--	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#6	--	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#7	--	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#8	--	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#9	--	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
Equipment Blank	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	1.0	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#10	--	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#11	--	--	11/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#12	--	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#13	--	--	11/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#14	--	--	11/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#15	--	--	11/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#16	--	--	11/13/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#17	--	--	11/14/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#18	--	--	11/15/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#1	--	--	12/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
Equipment Blank	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	0.52	<0.50	<0.50	<0.50	11	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#1	--	--	02/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#2	--	--	02/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#3	--	--	02/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#4	--	--	02/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#5	--	--	02/10/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#6	--	--	02/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#7	--	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#8	--	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
Equipment Blanks																												
PB#9	--	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#10	--	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#11	--	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#12	--	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#13	--	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#14	--	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#15	--	--	02/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#16	--	--	02/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	05/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#2	--	--	05/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#4	--	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#5	--	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#7	--	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#8	--	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#9	--	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#10	--	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#11	--	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#12	--	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#13	--	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#14	--	--	05/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#2	--	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#3	--	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#4	--	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#5	--	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters Mission Valley Terminal, San Diego, CA ARCADIS CM010143.0175																											
Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO ₃) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments
Equipment Blanks																											
PB#6	--	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#7	--	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#8	--	--	08/01/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#9	--	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#10	--	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#11	--	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#12	--	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#13	--	--	08/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#14	--	--	08/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#15	--	--	08/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#16	--	--	08/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#17	--	--	08/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#1	--	--	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#2	--	--	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#3	--	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#4	--	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#5	--	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#6	--	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#7	--	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#8	--	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#9	--	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#10	--	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#11	--	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#12	--	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
PB#14	--	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--

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Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO ₃) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
Equipment Blanks																												
PB#13	--	--	11/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#15	--	--	11/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#17	--	--	11/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#18	--	--	11/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	
PB#19	--	--	11/10/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#20	--	--	11/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#21	--	--	11/12/14	<0.50	<0.050	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB#22	--	--	11/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blanks																												
Trip Blank	--	--	01/10/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	01/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	02/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#2	--	--	02/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#3	--	--	02/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#4	--	--	02/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	--	--	02/10/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#5	--	--	02/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#6	--	--	02/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#7	--	--	02/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#8	--	--	02/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	03/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	04/04/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	04/23/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#2	--	--	04/24/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#3	--	--	04/25/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 4



Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
Trip Blanks																												
TB#4	--	--	04/26/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#5	--	--	04/27/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#6	--	--	04/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#7	--	--	05/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#8	--	--	05/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#9	--	--	05/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#10	--	--	05/04/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	--	--	05/11/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	06/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	07/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	08/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#2	--	--	08/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#3	--	--	08/08/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#4	--	--	08/09/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#5	--	--	08/10/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#6	--	--	08/13/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#7	--	--	08/14/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#8	--	--	08/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#9	--	--	08/16/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#10	--	--	08/17/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	--	--	08/28/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	09/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	09/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	10/15/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	10/29/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments		
Trip Blanks																													
TB#2	--	--	10/30/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#3	--	--	10/31/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#4	--	--	11/01/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#5	--	--	11/02/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#6	--	--	11/05/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#7	--	--	11/06/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#8	--	--	11/07/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
Trip Blank	--	--	11/12/12	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#9	--	--	11/12/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#1	--	--	12/03/12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#1	--	--	01/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
Trip Blank	--	--	01/29/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#1	--	--	02/04/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#2	--	--	02/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#3	--	--	02/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#4	--	--	02/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#5	--	--	02/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#6	--	--	02/18/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#7	--	--	02/19/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#8	--	--	02/20/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#9	--	--	02/21/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#10	--	--	02/22/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#11	--	--	02/25/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#12	--	--	02/26/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		
TB#13	--	--	02/27/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--		

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Mission Valley Terminal, San Diego, CA
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Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments
Trip Blanks																											
TB#1	--	--	03/14/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	--	--	04/12/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#1	--	--	04/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#1	--	--	04/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#2	--	--	04/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#3	--	--	05/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#4	--	--	05/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#5	--	--	05/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#6	--	--	05/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#7	--	--	05/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#8	--	--	05/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#9	--	--	05/09/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#11	--	--	05/13/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#1	--	--	06/11/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#1	--	--	07/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#1	--	--	07/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#2	--	--	07/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#3	--	--	08/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#4	--	--	08/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#5	--	--	08/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#6	--	--	08/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	--	--	08/07/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	<150	--	--	--	--	--	--	--	--	--	--	--	--
TB#7	--	--	08/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#8	--	--	08/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#9	--	--	08/09/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
Trip Blanks																												
TB#1	--	--	09/03/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	10/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	10/29/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#2	--	--	10/30/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#3	--	--	10/31/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#4	--	--	11/01/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#5	--	--	11/04/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	--	--	11/05/13	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#6	--	--	11/05/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#7	--	--	11/06/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#8	--	--	11/07/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#9	--	--	11/08/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	
TB#10	--	--	11/12/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#11	--	--	11/13/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#12	--	--	11/14/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#13	--	--	11/15/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	12/02/13	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	--	--	02/03/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#1	--	--	02/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#2	--	--	02/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#3	--	--	02/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#4	--	--	02/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#5	--	--	02/10/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#6	--	--	02/11/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	
TB#7	--	--	02/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO ₃ -N) mg/L	Sulfate (SO ₄) mg/L	Comments	
Trip Blanks																												
TB#8	--	--	02/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#9	--	--	02/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#1	--	--	03/26/14	--	<0.50	--	--	--	--	--	--	--	--	--	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#1	--	--	05/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	--	--	05/07/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#4	--	--	05/09/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#5	--	--	05/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#6	--	--	05/13/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#7	--	--	05/14/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#8	--	--	05/15/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	--	--	05/27/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#1	--	--	07/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#2	--	--	07/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#3	--	--	07/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#4	--	--	08/01/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trip Blank	--	--	08/04/14	--	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#5	--	--	08/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#6	--	--	08/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#7	--	--	08/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#1F	--	--	10/28/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#2F	--	--	10/29/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#3F	--	--	10/30/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#4F	--	--	10/31/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#5F	--	--	11/03/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#6F	--	--	11/04/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
 ARCADIS CM010143.0175

Well	Groundwater Elevation ft-msl	Product Thickness feet	Date	TPH Purgeable mg/L	TPH-E (Diesel) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Ethanol mg/L	Dissolved Oxygen mg/L	ORP mV	Total Alkalinity (As CaCO3) mg/L	BOD mg/L	COD mg/L	TOC mg/L	Methane µg/L	Iron, Ferrous (FE ²⁺)-Field mg/L	Iron, Ferrous (FE ²⁺) mg/L	Nitrate (NO3-N) mg/L	Sulfate (SO4) mg/L	Comments	
Trip Blanks																												
TB#8F	--	--	11/05/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#10F	--	--	11/06/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#11F	--	--	11/07/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#12F	--	--	11/10/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#13F	--	--	11/11/14	<0.50	<0.050	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB#14F	--	--	11/12/14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB-1	--	--	12/04/14	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 4

Historical Off-Terminal Groundwater Analytical Results for Most Recent 12 Quarters

Mission Valley Terminal, San Diego, CA
ARCADIS CM010143.0175

Notes:

Data prior to 4/1/02 managed by TRC. Data after 4/1/02 managed by LFR. Data after 1/1/10 managed by ARCADIS.

TPH-Purgeable = Total Petroleum Hydrocarbons, Gasoline

TPH-E (Diesel) = Total Petroleum Hydrocarbons, Diesel

MTBE = Methyl tert-butyl ether

TBA = Tertiary Butyl Alcohol

BOD = Biochemical Oxygen Demand

COD = Chemical Oxygen Demand

TOC = Total Organic Carbon

DIPE = Diisopropyl Ether

ETBE = Ethyl tert-butyl ether

TAME = Tert-Amyl methyl ether

ORP = Oxidation Reduction Potential

µg/L = Micrograms per liter

mV = millivolts

C = Reported concentration includes additional compounds uncharacteristic of common fuels and lubricants.

K = Reported diesel concentration may include some undifferentiated lighter-end hydrocarbons.

L = Reported diesel concentration may include contributions from heavier-end hydrocarbons.

Z = DRO concentration may include contributions from lighter-end and heavier-end hydrocarbons that may elute in the DRO range.

* = The sample contained compounds uncharacteristic of common fuels or lubricants (i.e. biogenic material). A GC/MS library scan identified the primary peak as a high-molecular weight compound similar to a fatty acid ester.

** = Sample had varying pH levels and Alkalinity measurements between sample containers.

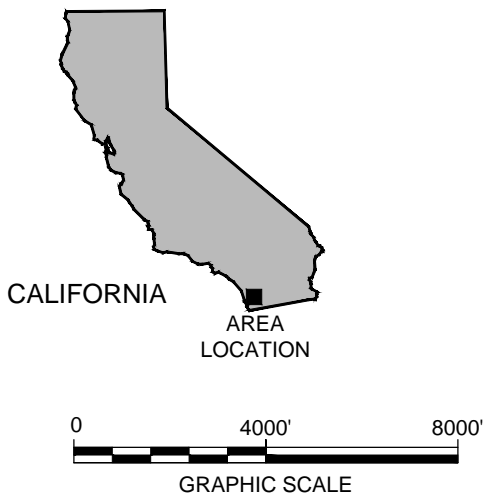
-- = Not Analyzed

ARCADIS

Figures



MAP SOURCE: USGS 7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLE LA JOLLA, 2012, AND LA MESA, 2012



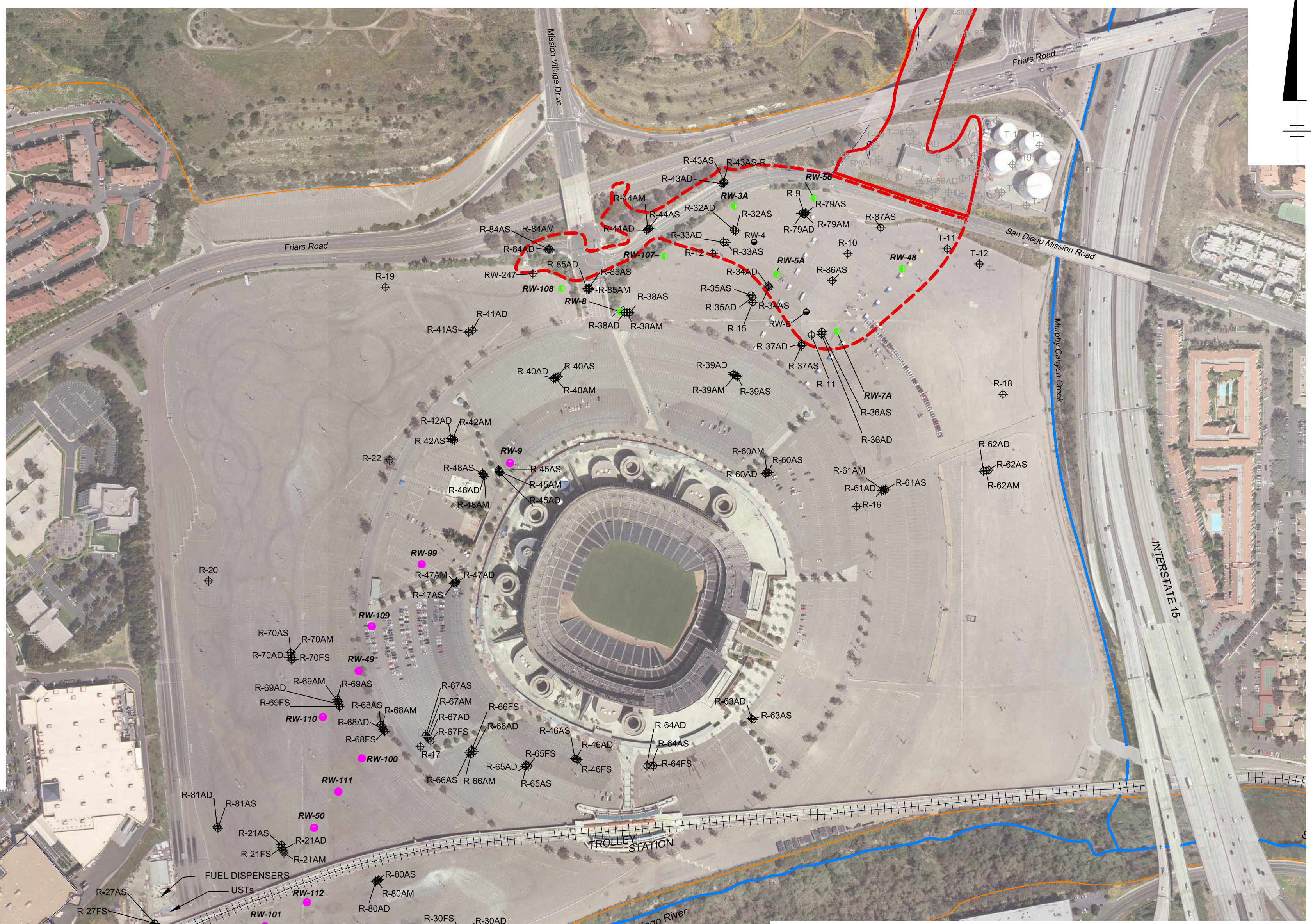
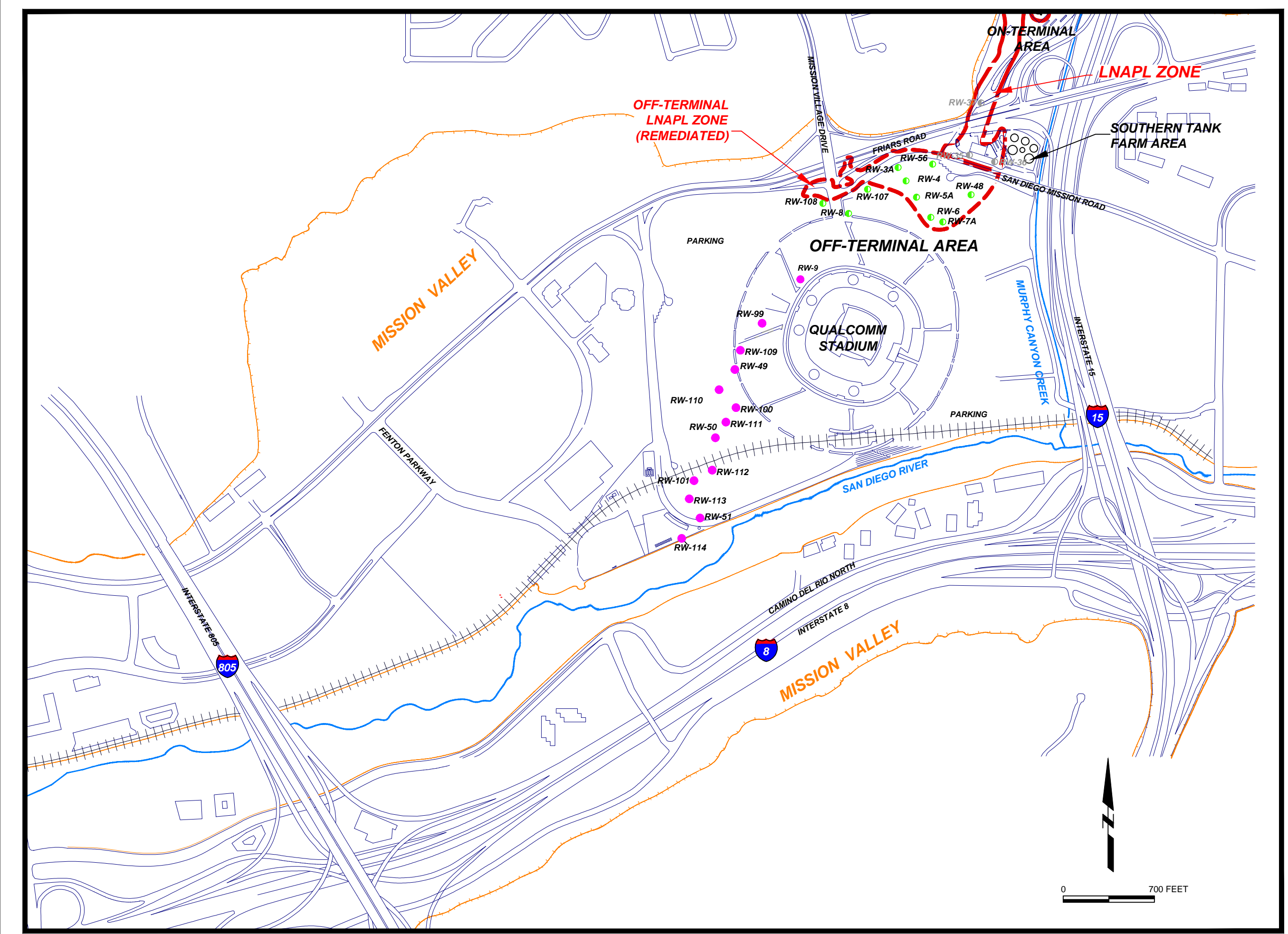
MISSION VALLEY TERMINAL
SAN DIEGO, CALIFORNIA
FOURTH QUARTER 2014

OFF-TERMINAL VICINITY MAP
OCTOBER-NOVEMBER 2014



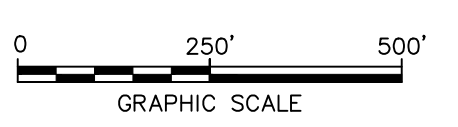
FIGURE
1

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LEGEND

- OFF-TERMINAL MONITORING WELL
- PROXIMAL OFF-TERMINAL GWE WELLS
- DISTAL OFF-TERMINAL GWE WELLS
- HISTORICAL OFF-TERMINAL GWE WELLS
- ON-TERMINAL WELLS ADDRESSED IN THE SEPARATE ON-TERMINAL GROUNDWATER REPORT.
- LNAPL ZONE
- OFF-TERMINAL LNAPL ZONE (REMEDIATED)



**MISSION VALLEY TERMINAL
 SAN DIEGO, CALIFORNIA
 FOURTH QUARTER 2014**

**OFF-TERMINAL SITE PLAN
 OCTOBER-NOVEMBER 2014**

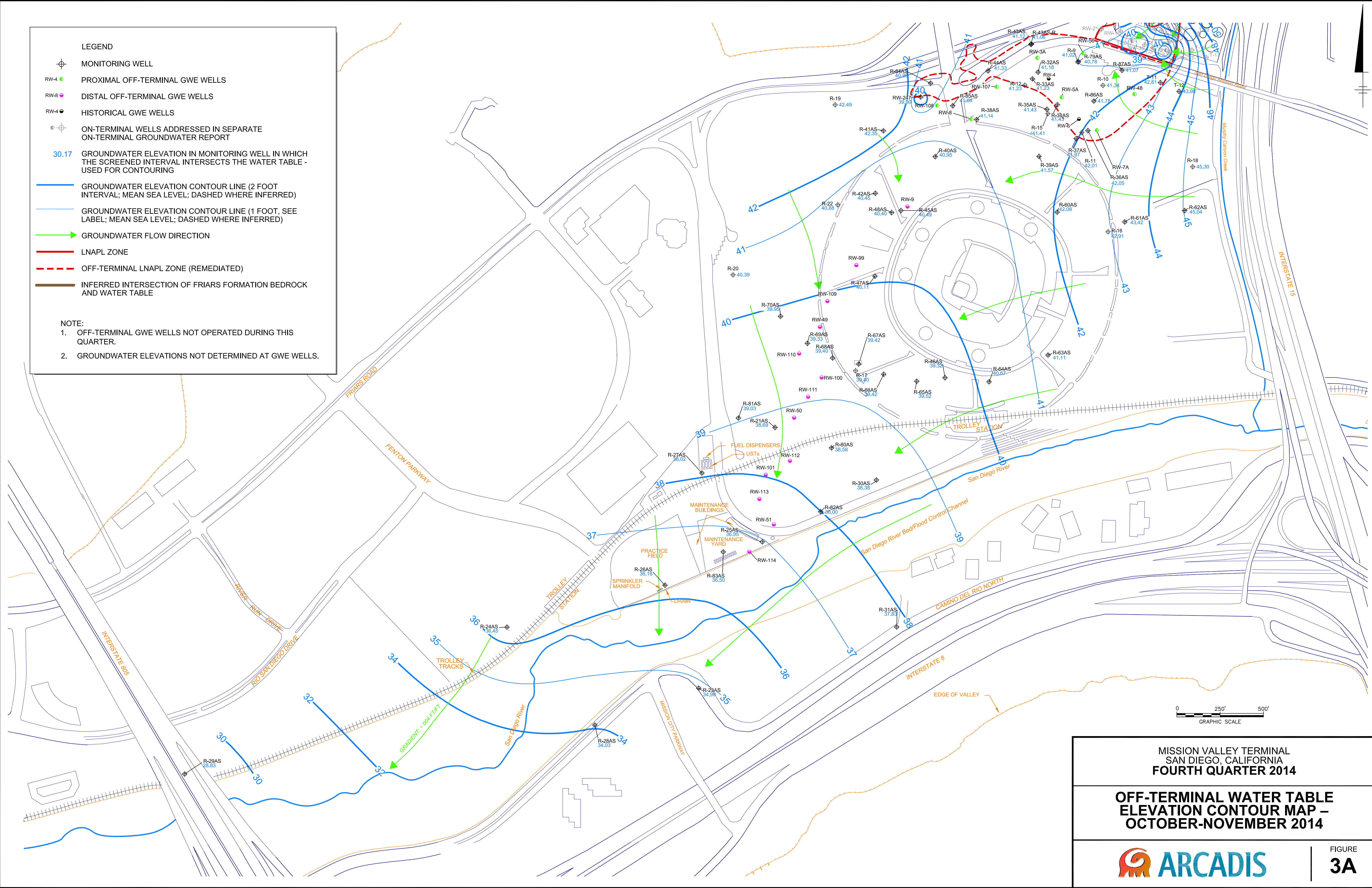
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LEGEND

- MONITORING WELL
- PROXIMAL OFF-TERMINAL GWE WELLS
- DISTAL OFF-TERMINAL GWE WELLS
- HISTORICAL GWE WELLS
- ON-TERMINAL WELLS ADDRESSED IN SEPARATE ON-TERMINAL GROUNDWATER REPORT
- 30.17** GROUNDWATER ELEVATION CONTOUR LINE (2 FOOT INTERVAL; MEAN SEA LEVEL; DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION CONTOUR LINE (1 FOOT, SEE LABEL; MEAN SEA LEVEL; DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- LNAPL ZONE
- OFF-TERMINAL LNAPL ZONE (REMEDIATED)
- INFERRED INTERSECTION OF FRIARS FORMATION BEDROCK AND WATER TABLE

NOTE:

1. OFF-TERMINAL GWE WELLS NOT OPERATED DURING THIS QUARTER.
2. GROUNDWATER ELEVATIONS NOT DETERMINED AT GWE WELLS.

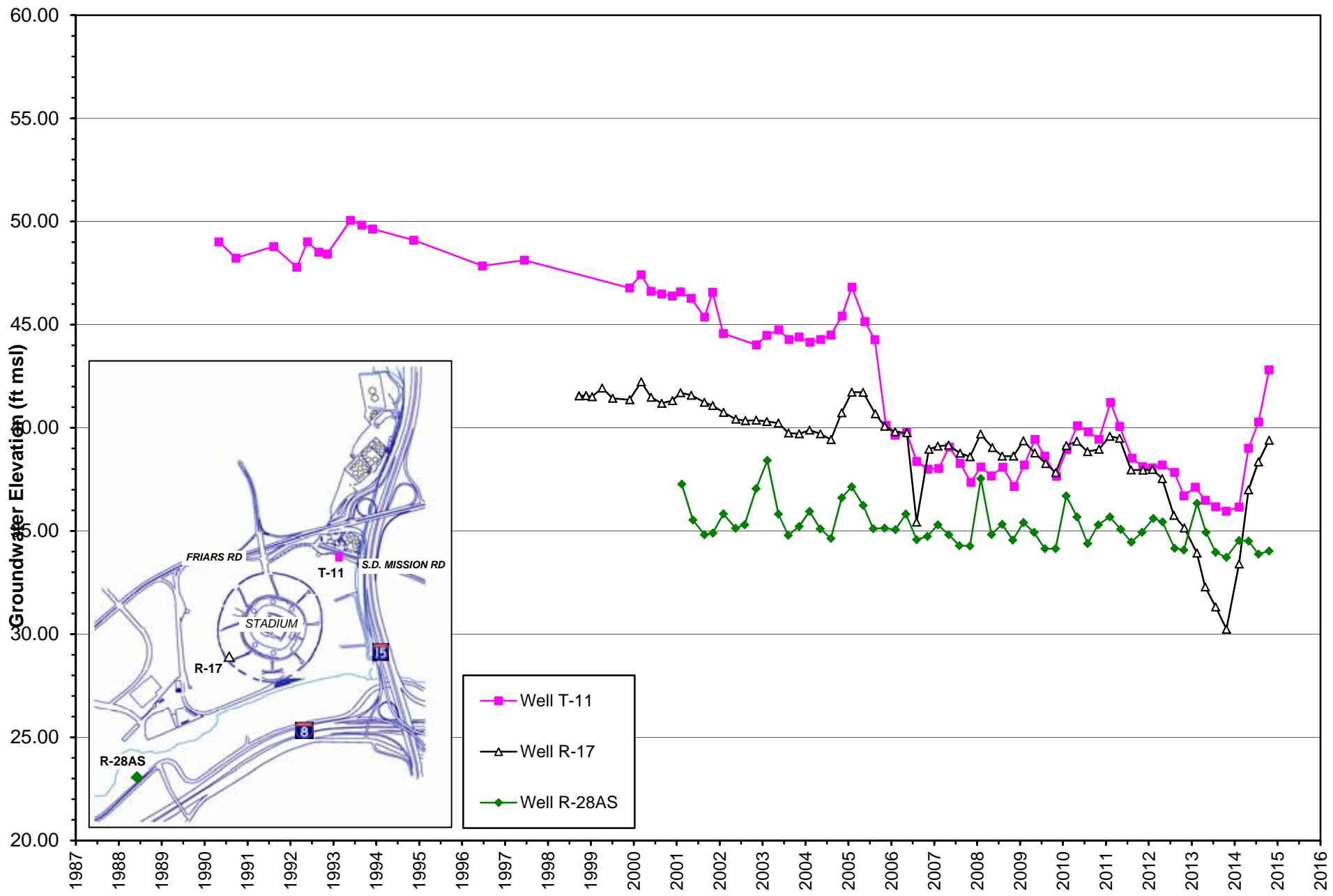


MISSION VALLEY TERMINAL
SAN DIEGO, CALIFORNIA
FOURTH QUARTER 2014

**OFF-TERMINAL WATER TABLE
ELEVATION CONTOUR MAP –
OCTOBER-NOVEMBER 2014**

ARCADIS

FIGURE
3A



**Historical Water Table Elevations in Selected Off-Terminal Wells,
to October-November 2014**

Mission Valley Terminal
San Diego, California
Fourth Quarter 2014
Figure 3B

LEGEND

- MONITORING WELL
- RW-0 PROXIMAL OFF-TERMINAL GWE WELLS
- RW-1 DISTAL OFF-TERMINAL GWE WELLS
- RW-4 HISTORICAL GWE WELLS (NOT SAMPLED)
- ON-TERMINAL WELLS ADDRESSED IN THE SEPARATE ON-TERMINAL GROUNDWATER REPORT
- LNAPL ZONE
- OFF-TERMINAL LNAPL ZONE (REMIEDIATED)
- INFERRED INTERSECTION OF FRIARS FORMATION BEDROCK AND WATER TABLE

NOTES:

B = BENZENE
 T = TOLUENE
 E = ETHYLBENZENE
 X = TOTAL XYLENES
 TPHG = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 TPHD = TOTAL PETROLEUM HYDROCARBONS AS DIESEL
 MTBE = METHYL TERTIARY BUTYL ETHER
 TBA = TERTIARY BUTYL ALCOHOL
 µg/L = MICROGRAMS PER LITER
 mg/L = MILLIGRAMS PER LITER
 LESS THAN SYMBOL (<) INDICATES COMPOUND NOT DETECTED ABOVE REPORTING LIMIT SHOWN
 IWS = INSUFFICIENT WATER TO SAMPLE
 IWG = INSUFFICIENT WATER TO GAUGE
 NA = NOT ANALYZED
 NS-GO = NOT SAMPLED - GAUGED ONLY AS PER MRP
 GWE WELLS NOT SAMPLED FOR TPHG OR TPHD.

FRIARS FORMATION

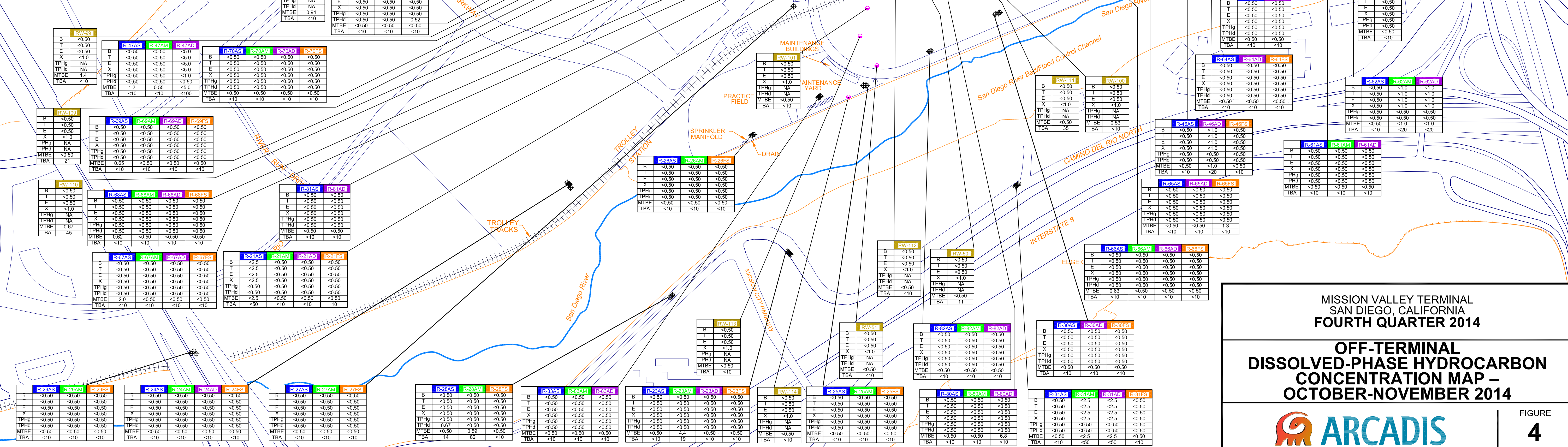
R-31AS	R-31AM	R-31AD	R-31FS
ALLUVIUM SHALLOW	ALLUVIUM MIDDLE	ALLUVIUM DEEP	FRIARS SHALLOW

GROUNDWATER EXTRACTION WELLS (PRIMARY ALLUVIUM MIDDLE AND ALLUVIUM DEEP)

RW-35
GROUNDWATER EXTRACTION WELL (PRIMARY ALLUVIUM MIDDLE AND ALLUVIUM DEEP)

GRAPHIC SCALE

0 250' 500'



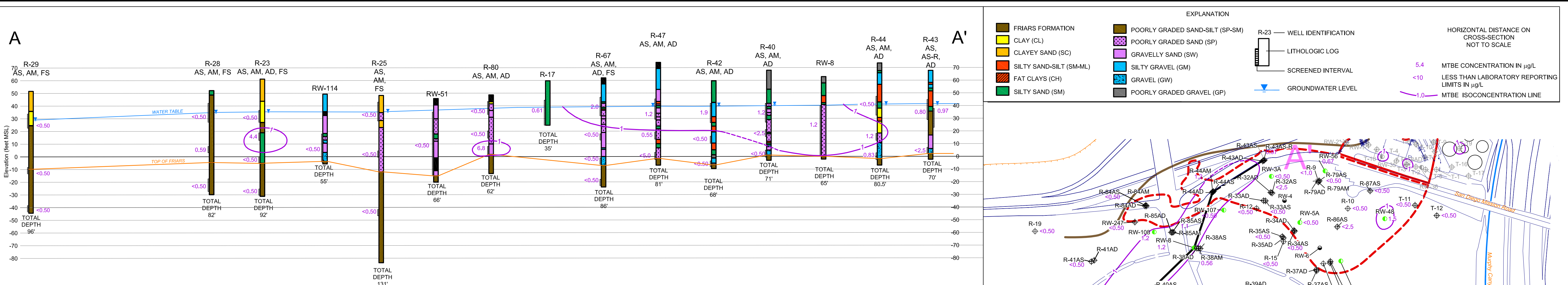
MISSION VALLEY TERMINAL
 SAN DIEGO, CALIFORNIA
 FOURTH QUARTER 2014

OFF-TERMINAL DISSOLVED-PHASE HYDROCARBON CONCENTRATION MAP - OCTOBER-NOVEMBER 2014

ARCADIS

FIGURE 4

CITY: (Read) DIV: (GROUP) (Read) DE: (Read) LD: (Opt) PIC: (Opt) PM: (Read) TM: (Opt) LYS: (Opt) ON: (Opt) OFF: (REF) S: (NEW) D: (REUSE) FILE: C:\Users\Beverly\Documents\GIS\MTBE\10143_175_42\14_Fig.MTBE.dwg LAYOUT: MTBE OFF-TERM PAGES: 18 OF 18 ACADVER: 18 IS (LMS TECH) PAGES: 18 OF 18 PLOTTED: 12/26/2014 10:42 AM BY: ROBTAILLE, BEVERLY

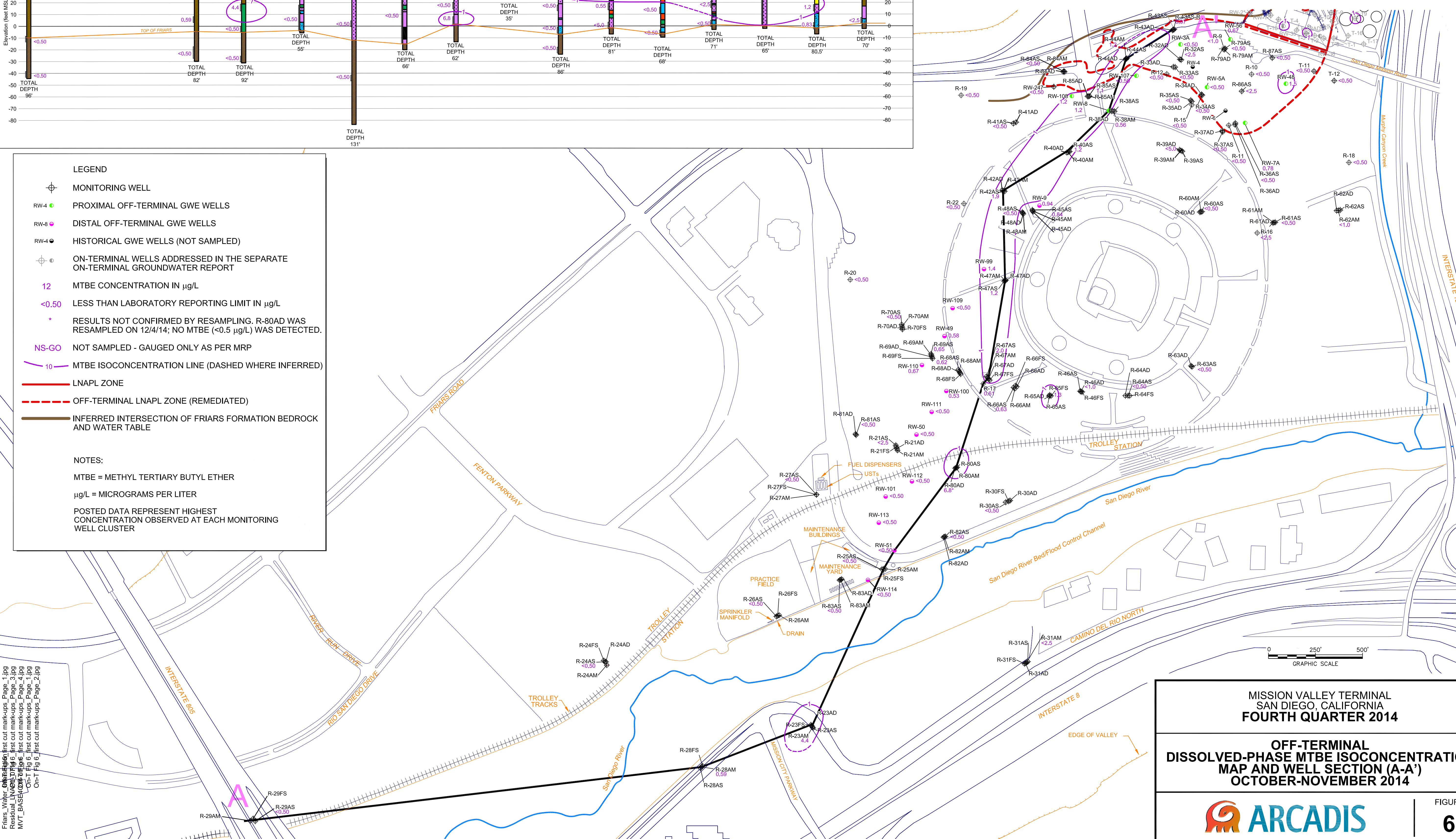


LEGEND

- ⊕ MONITORING WELL
- ⊕ RW-4 PROXIMAL OFF-TERMINAL GWE WELLS
- ⊕ RW-8 DISTAL OFF-TERMINAL GWE WELLS
- ⊕ RW-4 HISTORICAL GWE WELLS (NOT SAMPLED)
- ⊕ ON-TERMINAL WELLS ADDRESSED IN THE SEPARATE ON-TERMINAL GROUNDWATER REPORT
- 12** MTBE CONCENTRATION IN $\mu\text{g/L}$
- <0.50** LESS THAN LABORATORY REPORTING LIMIT IN $\mu\text{g/L}$
- *** RESULTS NOT CONFIRMED BY RESAMPLING. R-80AD WAS RESAMPLED ON 12/4/14; NO MTBE (<0.5 $\mu\text{g/L}$) WAS DETECTED.
- NS-GO** NOT SAMPLED - GAUGED ONLY AS PER MRP
- **10** MTBE ISOCONCENTRATION LINE (DASHED WHERE INFERRED)
- LNAPL ZONE
- OFF-TERMINAL LNAPL ZONE (REMIEDIATED)
- INFERRED INTERSECTION OF FRIARS FORMATION BEDROCK AND WATER TABLE

NOTES:

- MTBE = METHYL TERTIARY BUTYL ETHER
- $\mu\text{g/L}$ = MICROGRAMS PER LITER
- POSTED DATA REPRESENT HIGHEST CONCENTRATION OBSERVED AT EACH MONITORING WELL CLUSTER



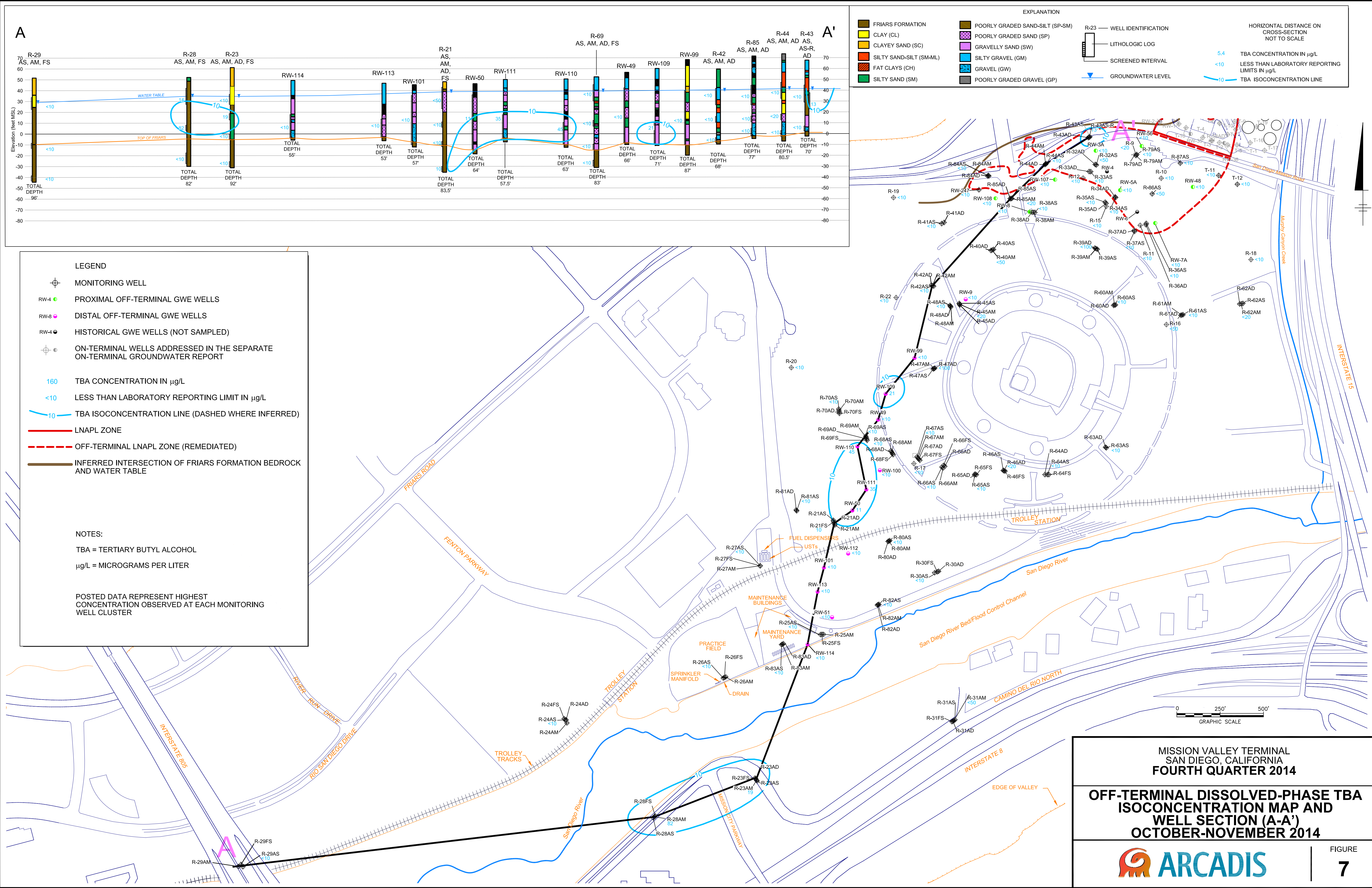
**MISSION VALLEY TERMINAL
SAN DIEGO, CALIFORNIA
FOURTH QUARTER 2014**

**OFF-TERMINAL
DISSOLVED-PHASE MTBE ISOCONCENTRATION
MAP AND WELL SECTION (A-A')
OCTOBER-NOVEMBER 2014**

ARCADIS

FIGURE
6

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Appendix B-6

**Post-Remediation
Groundwater Quality,
Mission Valley Aquifer,
Geofirma Engineering, Ltd
and Intera, Inc.,
March 17, 2015**

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THE CITY OF SAN DIEGO

March 25, 2015

Mr. David Gibson, Executive Officer
California Regional Water Quality Control Board
San Diego Region
2375 Northside Drive, Suite 100
San Diego, CA 92108

SAN DIEGO REGIONAL
WATER QUALITY
CONTROL BOARD
2015 MAR 26 PM 3 09

Dear Mr. Gibson:

Subject: Evaluation Report of Remediation for Kinder Morgan's Mission Valley Terminal
Off-Site Release

The City of San Diego asked its consultants, Dr. Richard Jackson of Geofirma Engineering, Ltd. and Mr. Rob Sengebush P.G. of INTERA, to study the recently submitted Post Remediation Quarterly Groundwater Report from Arcadis on behalf of Kinder Morgan Energy Partners LLP and prepare a report that evaluates the impacts of the remediation they have undertaken in the off-terminal area, which is largely municipal property (Attached).

No one disputes the progress that has been made in reducing certain contaminants from the environment, but there is still considerable concern that the full effects of the release will impact this critical and finite resource for some time, and that mitigation and restoration of the resource is far from over. There are still steps that the Regional Board should insist upon before ceasing oversight activities, related both to the increased amount of Total Dissolved Solids (TDS) and Tertiary Butyl Alcohol (TBA), a daughter product of the Methyl Tert-Butyl Ether (MTBE), that persist at the site. The report we are submitting further documents these issues and the fact that, as of the most recent water-level measurements, the water table has not fully recovered to pre-remediation elevations. This was recommended as a requirement by Professor Johnson and Dr. Eggers in their letter to the Regional Board dated January 7, 2005.

Public Utilities Department

525 B Street, Suite 300, MS 906 • San Diego, CA 92101-4409

Tel (619) 533-7595



Page 2
Mr. David Gibson, Executive Officer
March 25, 2015

We appreciate your close attention to the enclosed report. On the inside back cover of the report there is a CD that contains the report in Portable Document Format for your convenience. Please have this report uploaded to Geotracker. You may contact Greg Cross at (619) 533-4235 if you have any questions regarding this submittal.

Thank you for your consideration of this information, and for your continued assurance that the limited drinking water resources of our region will be protected.

Sincerely,



Marsi A. Steirer
Deputy Director
Long-Range Planning and Water Resources Division

MAS/rr

Enclosure: Post-Remediation Groundwater Quality, Mission Valley Aquifer, 17 March 2015

cc: (w/enclosure)
Sean McClain, RWQCB
Scott Martin, P.G., Kinder Morgan Energy Partners

(w/o enclosure)
Julie Chan, RWQCB
Craig Carlisle, RWQCB
Dr. Richard Jackson, Geofirma
Rob Sengebush P.G., INTERA
Richard Opper, Counsel for City of San Diego

Page 3

Mr. David Gibson, Executive Officer

March 25, 2015

bcc: (w/enclosure)
Heather Stroud, Deputy City Attorney

(w/o enclosure)
Jon Taylor, Deputy City Attorney
Greg Cross, City of San Diego

RMU 6.2.1

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Post-Remediation Groundwater Quality, Mission Valley Aquifer

Revision: 1

Prepared for:

The Office of the City Attorney and the Public Utilities Department
The City of San Diego
San Diego, California

Prepared by:



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Document No.: 07-204_Post-Remediation_GWQ_R1.docx

17 March 2015

Title:	Post-Remediation Groundwater Quality, Mission Valley Aquifer	
Client:	The City of San Diego	
Document ID:	07-204_Post-Remediation_GWQ_R1.docx	
Revision Number:	1	Date: 17 March 2015
Prepared by:	Richard Jackson, Dru Heagle and Rob Sengebush	
Reviewed by:	Ken Raven	
Approved by:	 Ken Raven	

EXECUTIVE SUMMARY

Addendum No. 5 to Cleanup and Abatement Order 92-01 (CAO 92-01), which was issued by the San Diego Regional Water Quality Control Board (RWQCB) on April 13, 2005, ordered Kinder Morgan Energy Partners (KMEP) to meet cleanup of the Off-Terminal groundwater contamination from the Mission Valley Terminal (MVT) by the deadline of 31 December 2013. As of the cleanup deadline, the principal remaining contaminant of concern is TBA, the biodegradation product of MTBE.

KMEP/LFR proposed a cleanup level for TBA of 12 µg/L (ppb), which is the CDPH's 2010 notification level for TBA (now SWRCB Division of Drinking Water). The RWQCB adopted this cleanup level when it authorized KMEP to increase discharge of treated groundwater to Murphy Canyon Creek to 1.2 MGD in 2012 through Resolution R9-2012-0045 (RWQCB, 2012). This Resolution was "[b]ased on the modeling simulations" contained in the Groundwater Model Update Report by Arcadis (2011d) in which "*Kinder-Morgan determined that a groundwater discharge increase to 1.26 MGD is needed to increase the rate of groundwater extraction to achieve cleanup goals established by the December 31, 2013 CAO deadline*" (R9-2012-0045, p.2). The 'modeling simulations' referred to above were those in which the 12 ppb TBA cleanup goal was used (see Arcadis, 2011d, pp. 54-55).

The purpose of this report is to describe the current groundwater quality (GWQ) in the Mission Valley Aquifer (MVA) more than one year after the final cleanup deadline. The GWQ data reviewed is from both City and KMEP monitoring wells. The principal measurements by which reference to the background GWQ is assessed are TBA and TDS concentrations and the values of the redox parameters (DO, Alk, Fe, Mn) that were measured as part of the Monitored Natural Attenuation program conducted by KMEP.

The water table has not yet fully recovered to natural levels following the end of groundwater extraction (GWE) operations due to the continued function of Property Boundary Control Barrier wells RW-35 and RW-36 along San Diego Mission Road. Thus stranded contamination on City property adjacent the MVT is only now being revealed in groundwater samples.

With this constraint in mind, the GWQ data collected in October 2014 indicates that:

- Beneath the Qualcomm Stadium area, oxygenated conditions have not yet returned to the MVA where LNAPL once existed. It appears that residual hydrocarbon contamination is re-establishing anoxic conditions within the MVA with TDS concentration of ~2,100 mg/L. TBA had declined to below 50 ppb by November, but there is evidence of TBA and benzene rebound in the former LNAPL zone as stranded contamination is re-wetted by the rising water table.
- Beneath the DB site, which is the City property at 3025 El Camino del Rio North one mile west of the Qualcomm Stadium, the fugitive TBA/TDS plume will become progressively worse over the next 5 years and it will complicate the planned redevelopment of the MVA. The present TDS increase over the 1955 background (1100 mg/L) sample measured by DWR is ~460 mg/L and increasing. TBA concentrations greatly exceed the 12 ppb cleanup level and have progressively increased during 2014. Anoxic conditions are well established where oxygenated groundwater existed in 1955.

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Appendix B	Comparison of analytical estimates from two laboratories
Appendix C	Analytical data for City Monitoring Wells
Appendix D	Evaluation of Historical Water Levels in MVT Groundwater Monitoring Wells

LIST OF ACRONYMS

Alk:	Alkalinity (mg CaCO ₃ /L)
amsl:	above mean sea level, elevation
bgs:	below ground surface
CAO:	Cleanup and Abatement Order
Cfs:	Cubic feet per second
DB:	City monitoring well site on Camino del Rio North, near Dave & Buster's restaurant
DO	Dissolved Oxygen (mg/L)
DOC	Dissolved Organic Carbon (mg/L)
Eh:	Redox potential relative to the hydrogen electrode (mV)
Fm.	Formation
GMWL:	Global Meteoric Water Line, relationship of δ ¹⁸ O to δD in rainfall
GWE:	Groundwater Extraction
GWQ:	Groundwater Quality
K:	Hydraulic conductivity (ft/day or m/s)
KMEP:	Kinder Morgan Energy Partners
LFR	Former name of KMEP's consulting group, which became Arcadis in 2009
LNAPL:	Lighter-than-water, Non-Aqueous Phase Liquid, e.g., gasoline
MGD:	Million gallons per day
MNA:	Monitored Natural Attenuation
MTBE:	Methyl Tert-Butyl Ether, gasoline additive
MVA:	Mission Valley Aquifer
MVT:	Mission Valley Terminal
MW:	Monitoring Well
ORP:	Oxidation-Reduction Potential (mV)
ppm	parts per million, in fresh groundwater this is equivalent to mg/L
ppb	parts per billion, in fresh groundwater this is equivalent to µg/L
Q:	Quarter, as in 4Q2013, i.e., the 4 th Quarter of 2013 Monitoring Event
RWQCB:	Regional Water Quality Control Board, San Diego Region, California EPA
SDAQ:	San Diego Aquaculture well, USGS multilevel well
SEC:	Specific Electrical Conductance (µS/cm)
SVE:	Soil Vapor Extraction
TBA:	Tertiary Butyl Alcohol, biotransformation product of MTBE
TDS:	Total Dissolved Solids (in mg/L)
USGS:	US Geological Survey
VOC:	Volatile Organic Compound
‰	per mil, or parts per thousand
δ ¹⁸ O	delta Oxygen 18, measurement of oxygen isotopes (‰)
δD	delta Deuterium, measurement of hydrogen isotopes (‰)

1 INTRODUCTION

1.1 Plume Development

The Mission Valley Aquifer (MVA) is a high-permeability paleochannel alluvial deposit within the Quaternary sediments of the Lower San Diego River Valley (the “Valley”). For the purposes of this report, the MVA is defined as that part of the alluvial aquifer above the Friars bedrock that provided the groundwater supply for the City of San Diego in the years before World War II (WWII). It was contaminated by the 1987-1991 release of gasoline at the Mission Valley Terminal (MVT) and is to be re-developed by the City of San Diego (‘the City’) following completion of the remediation by Kinder Morgan Energy Partners (KMEP). Figure 1.1 shows the principal landscape features of the Valley including the Qualcomm Stadium, MVT and Murphy Canyon.

Figure 1.2 shows schematically the MVT, the Qualcomm Stadium and the MVA, the remediation of which is the subject of this analysis. The contaminated part of this paleochannel aquifer is largely composed of alluvial materials from Murphy Canyon, which drains an extensive watershed in the north of the City. Also the MVA comprises some surficial deposits from the San Diego River. The US Geological Survey’s SDAQ borehole in the Valley (see Figure 1 for location) indicates a sedimentary thickness of ~950 ft in the Valley (http://ca.water.usgs.gov/sandiego/wells/sdaq_lith_shaker.html).

The MVT is located in the neck of Murphy Canyon where it discharges to the floodplain of the San Diego River (see Figure 1.1). Between 1987 and 1991, a major gasoline release at the MVT – of the order of 200,000 gallons – occurred from a corroded pipeline near the MVT manifold that directs gasoline, a lighter-than-water non-aqueous phase liquid or LNAPL, to the various tanks on the MVT. .

This LNAPL migrated within the gravels of the MVA to beneath the northern section of the Qualcomm Stadium Parking Lot and, by dissolution in the groundwaters of the MVA, produced a dissolved-phase plume of methyl tertiary butyl ether (MTBE), a gasoline additive, which rapidly degraded into tert-butyl alcohol (TBA). The main LNAPL zone and the associated benzene, MTBE and TBA plumes are shown in outline on Figure 1.3 over time as they developed and then, after 2005, contracted during groundwater extraction (GWE), soil-vapor extraction (SVE) and in-situ bioremediation. In particular, the MTBE/TBA plume was identified in monitoring wells in the MVA in 1999 (Harding Lawson Associates, 1999) and later mapped (LFR, 2007a) stretching from the main LNAPL zone towards the area of the City’s new (2011) DB monitoring wells on Camino del Rio North shown on Figure 1.1.

1.2 Regulatory Issues

The remediation of LNAPL and of these off-Terminal plumes began in earnest in 2005 following the issuance of Addendum 5 to Cleanup and Abatement Order 92-01 by the San Diego Regional Water Quality Control Board (RWQCB, 2005). Addendum No. 5 also ordered KMEP to revise its 1999 Site Conceptual Model and Corrective Action Plan and specify how it would meet cleanup of the Off-Terminal dissolved contamination by the deadline of 31 December 2013 and thereby attain “background water quality conditions”.

In their September 2005 revision of the Corrective Action Plan, KMEP’s site contractor, LFR (2005), indicated that it would be relying on monitored natural attenuation (MNA) of the MTBE and TBA to

meet the required water quality objectives or ‘cleanup levels’. This Plan specified groundwater cleanup levels guiding the remediation, which are listed in Table 1.1, the most restrictive of which appear to be those for benzene (1 ppb) and TBA (12 ppb).

Table 1.1 Proposed water quality objectives for achievement in Off-Terminal groundwater by the deadline of 31 December, 2013 (LFR 2005) compared with the effective solubility of the same compounds in gasoline-contaminated groundwater.

Chemical Compound	Composition in Gasoline (%)	Effective Solubility (µg/L, 20°C)	Proposed Cleanup Level (µg/L)	Basis
MTBE	11.1	4,700,000	5	Secondary MCL
TBA	~0	Miscible	12	DHS Health-Based Advisory Levels
Benzene	1	18,000	1	Primary MCL
Toluene	5	25,000	40	Secondary MCL
Ethyl Benzene	1.5	3,000	30	Secondary MCL
Xylenes (total)	10	20,000	20	Secondary MCL
Ethylene Dibromide	unknown	4,000	0.05	Primary MCL

N.B. Primary Maximum Contaminant Levels (MCL) are those identified by the State of California, whereas Secondary MCLs are those of the US EPA. Effective solubilities from Johnson et al. (2000) except TBA miscibility from ITRC (2005) and EDB value from Schwille (1988).

The full extent of LNAPL remediation can only be determined once the water table is allowed to recover to its pre-contamination elevations and this water-table recovery has not yet been achieved (see section 4 of this Report). As the RWQCB’s advisors noted in 2005 (Johnson and Eggers, 2005, p.13):

“It should be noted that the effect of remediation on groundwater quality impacts cannot be fully assessed until groundwater pumping ceases and groundwater levels are allowed to rise back to natural levels.”

This criterion is necessary because the buoyancy of the LNAPL would have allowed it to become smeared to the highest water-table elevation achieved during its presence in the MVA prior to 2011 – see Figure 1.4. Both Arcadis and Geofirma/INTERA have identified ‘stranded LNAPL’ occurrences since 2005 in their respective reports, i.e., LNAPL or gasoline contamination that was left in place in low permeability silts and clays by the falling water table. In the most recent case, rather than LNAPL,

Arcadis¹ identified stranded TBA being displaced by an ethanol spill recorded in R-85AS (490 µg/L, duplicate 470 µg/L, samples collected May 6, 2013). Irrespective of whether it is LNAPL or dissolved contamination, the need for full recovery of the water table is evident.

KMEP's consultants remarked (LFR, 2007b, p.6) in a similar vein to Johnson and Eggers:

“Ultimately it is the aqueous-phase concentrations of constituents of concern (COCs) in groundwater in the area of the LNAPL zone by which the success of remediation will be judged, so it is important to develop a matching set of metrics and milestones by which remediation can be evaluated.”

It was at the time of this remark in October 2007 that LFR (2007b, p. 35-37) concluded that soil vapor extraction (SVE) rates would have to be substantially increased *“to achieve sufficient rates of remedial progress”* and that additional GWE wells be installed to meet the December 2013 deadline. Fortunately much remedial progress has been made since October 2007 due to enhancements to both the SVE extraction and vapour treatment systems and much higher GWE rates in the ‘distal’ MTBE/TBA plume. Unfortunately, these higher GWE rates were not matched with re-injection of treated groundwater to enhance hydrocarbon biodegradation and prevent seepage of brackish groundwater into the MVA from the Friars Fm. By the first deadline of 31 December 2010, the LNAPL had been apparently removed from the main off-Terminal LNAPL zone.

The remaining contamination was principally dissolved-phase TBA derived from MTBE. The water-quality objective of 12 ppb for TBA (CDPH Drinking Water Program) was implicitly adopted by the RWQCB in June 2012 by Resolution R9-2012-0045 (RWQCB, 2012), which authorized KMEP to increase discharge of treated groundwater to the Murphy Canyon Creek to 1.2 MGD. This Resolution was *“[b]ased on the modeling simulations”* (i.e., Arcadis, 2011d) in which *“Kinder-Morgan determined that a groundwater discharge increase to 1.26 MGD is needed to increase the rate of groundwater extraction to achieve cleanup goals established by the December 31, 2013 CAO deadline”* (R9-2012-0045, p.2). The ‘modeling simulations’ referred to are those contained in the Groundwater Model Update Report by Arcadis (2011d) in which the 12 ppb TBA cleanup goal is cited on pages 54-55.

1.3 Background and Baseline Groundwater Quality

The groundwater quality (GWQ) objectives shown in Table 1.1 exceed natural background water quality conditions in that all compounds listed in Table 1.1 are exotic anthropogenic compounds with respect to the alluvial groundwaters of California. Addendum No 5 allows the proposal of cleanup levels greater than non-detectable concentrations *“if cleanup to background water quality conditions is technologically or economically infeasible”*. Thus it is necessary to identify the meaning of ‘background water quality’ for the MVA and discriminate between ‘baseline’ and ‘background’ conditions.

¹ Presentation of Mr. Eric Nichols of Arcadis at the 9th Annual Hydrocarbon Summit at the University of Waterloo on August 28, 2013. The title of Mr. Nichols’ presentation was ‘The Evolution and Remediation of a Large MTBE/TBA Source Zone and Plume’, i.e., the contamination of the MVA by KMEP. During the talk, Mr. Nichols directly linked the April 7, 2013 rollover of a tanker containing ethanol with the appearance of TBA in the nearby monitoring well R-85AS.

In North America, 'background' and 'baseline' are defined by the USGS (Lee and Helsel, 2005) as follows:

- *Background* describes the pristine GWQ derived from natural geological, biological, or atmospheric sources in the absence of identifiable anthropogenic influences; whereas
- *Baseline* describes the GWQ representing the starting point of monitoring, e.g., prior to the construction of the MVT or the Qualcomm Stadium, and which typically includes some influences of human activities.

Addendum No. 5 had defined "background" to mean "*the concentrations of measures of constituents or indicator parameters in water or soil that have not been affected by waste constituents/pollutants from the Site*" (RWQCB, 2005, page 3, paragraph 3). Consequently, when KMEP decided to employ MNA as a partial remedial solution to the long MTBE plume, it would have been aware that intrinsic bioremediation would play a major role in attenuating the MTBE plume shown in Figure 1.3.

However, this definition of background ignores the fact that there are *no* groundwater constituents or indicator parameters *not* affected by the intrinsic biodegradation of hydrocarbons in groundwater. This is because intrinsic bioremediation of any hydrocarbon generates acid due to the dissolution of carbon dioxide in groundwater that results in acid attack on minerals and the subsequent rise in TDS concentrations (Bennett and Siegel, 1993; Borden et al., 1995 and Cozzarelli et al., 2011) and a depletion in oxidized constituents like dissolved oxygen, sulfate, etc. In short following contaminant attenuation, intrinsic bioremediation leaves a 'geochemical hangover' of high TDS and deteriorated redox conditions, i.e., the groundwater has become more saline and anoxic.

Thus the definition of background used by the San Diego RWQCB is flawed because it assumes that there is no relationship between organic groundwater contamination, such as that caused by gasoline, and the inorganic groundwater quality expresses as TDS or the individual dissolved solids or the oxidation-reduction (redox) indicator parameters (Eh, pH, etc). As soon as organic contaminants are biodegraded in groundwater, the alkalinity and acidity of the groundwater are changed and a series of hydrogeochemical reactions occur including (i) aquifer mineral dissolution leading to an increase in TDS and dissolved solids such as Ca, Mg, Fe, Mn, etc and (ii) the chemical reduction of oxidized solutes in groundwater such as DO, nitrate and sulfate.

We have identified elsewhere (Sengebush et al., 2015) the "*background water quality conditions*" in the MVA before gasoline (as LNAPL) impaired this GWQ in the 1990s as those represented by the USGS' 1915 sampling of the City wellfield. The pre-contamination or pre-MVT concentrations – i.e., 'baseline GWQ' – are those we associate with GWQ measurements made by the California Department of Water Resources in the 1950s (DWR, 1959; DWR, 1965), in particular that of well 18Q3 (see Figure 1.5) for the MVA groundwater (Total Dissolved Solids or TDS ~1100 mg/L).

This baseline GWQ is identified in Table 1.2. Also identified are two other water wells (17D1, 17D2), which appear to be completed in the Eocene Friars bedrock or a deeper formation and which exhibit much higher TDS concentrations (average ~2,000 mg/L). These water wells were not in the paleochannel aquifer comprising the MVA and provide an estimate of the high TDS concentrations in the Friars sediments adjacent to the paleochannel.

Table 1.2 Baseline GWQ of the MVA (18Q3) and neighbouring wells in the Friars Fm. (17D1, 17D2); samples collected prior to the urbanization of the Valley by California DWR (1959, 1965)

Well	Units	17D1	17D2	18Q3
Sample Date		May-1960	Feb-1963	April-1955
Temperature	°C	26	n.m.	22
pH	pH units	7.2	7.1	7.2
Specific Electrical Conductance	µS/cm	3160	n.m.	1786
Total Dissolved Solids	mg/L	2155	1776	1105
Sodium	mg/L	363	n.m.	215
Potassium	mg/L	5	n.m.	4
Calcium	mg/L	226	189	103
Magnesium	mg/L	68	93	46
Chloride	mg/L	615	593	368
Sulfate	mg/L	383	360	146
Bicarbonate	mg/L	432	n.m.	303
Nitrate-NO₃	mg/L	9	2.0	2.5
Boron	mg/L	0.6	n.m.	0.14

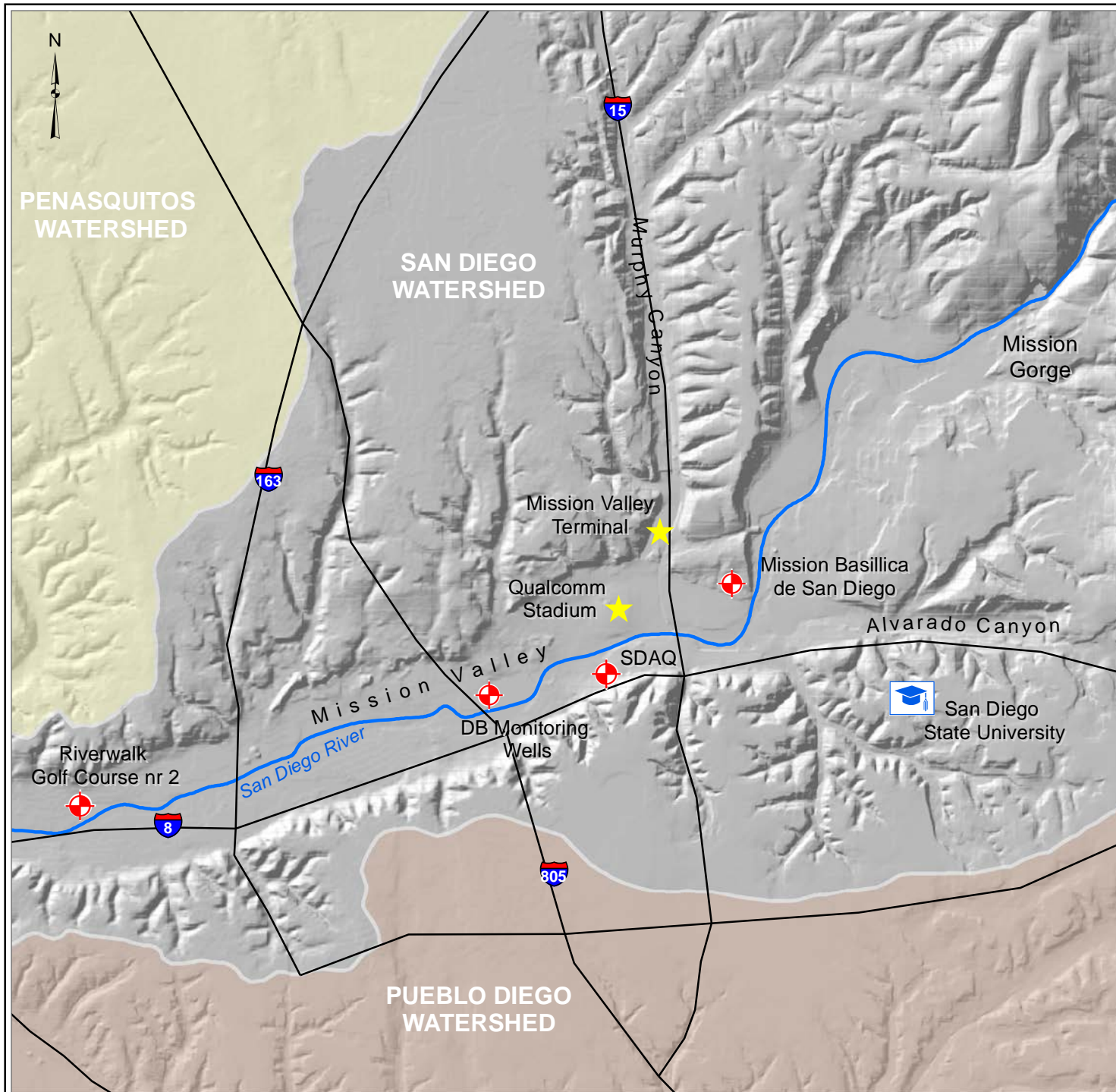
We consider the achievement of the 1915 conditions within the MVA, i.e., TDS ~ 400 mg/L, to be “*infeasible*” (Sengebush et al., 2015). However, the achievement of a TDS ~ 1100 mg/L is attainable with recharge of treated groundwater with TDS 500-1,000 mg/L to the MVA. This option – although without specification of the TDS concentration range to achieve 1100 mg/L – was advanced by the DWR (1965, pp 42-43) nearly 50 years ago for the Lower San Diego River Valley and is currently achievable with today’s desalinization technology.

1.4 Structure of the Report

This report is divided into two separate assessments:

- (i) an analysis of progress towards the baseline GWQ in MVA beneath the Qualcomm Stadium parking lot and
- (ii) the fate of the contaminated groundwater in the DB monitoring wells area, where the TBA/TDS plume migrated beyond the capture zone of KMEP’s GWE wells and is presently migrating towards Mission Bay.

The Qualcomm area is defined by cross sections E-E’ and G’-G” through the center of the MVA in Figure 1.6; the DB area is defined by cross section G-G’ in Figure 1.6. The cross sections themselves are shown in sections 2 (Figure 2.5) and 3 (Figure 3.4) respectively. Section 4 reviews the recovery of the water table, which is a requirement to allow the completion of the assessment of site remediation. Section 5 is a summary and conclusions.



LEGEND





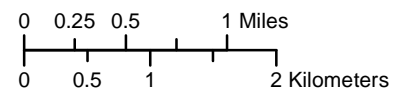
-  Facility
-  Monitoring Well
-  University
-  Highway
-  River

Figure 1.1
Lower San Diego River Valley
Mission Valley and
Murphy Canyon



Coordinate System: UTM NAD 83 Zone 11N
 Source: US Geological Survey, City of San Diego, ESRI

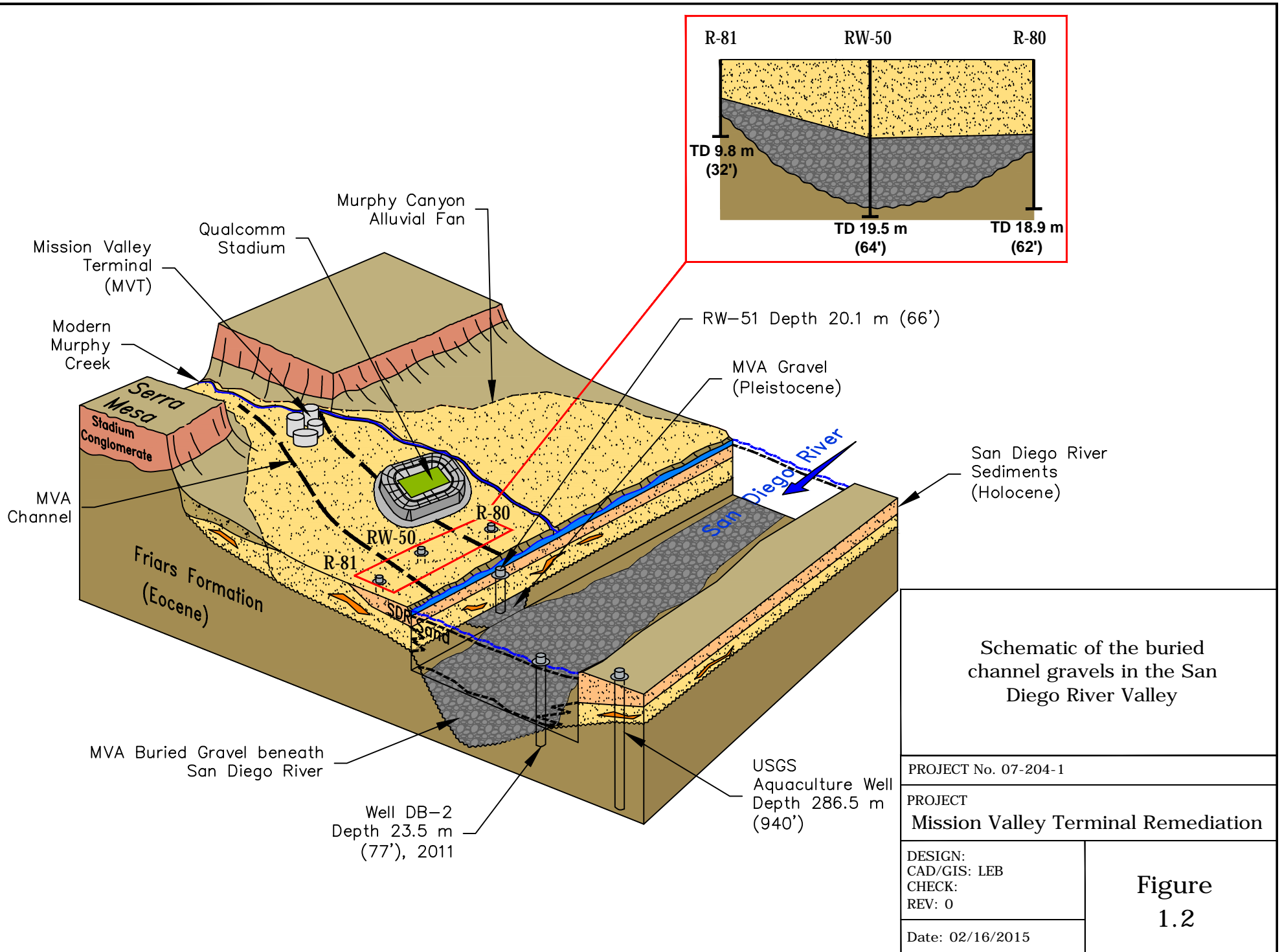
PROJECT No. 07-204-1

PROJECT
 Mission Valley Terminal Remediation

DESIGN: NMP
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 CHECK: REJ
 REV: 0A

Date: 2/17/2015







November 2005 benzene concentration contours,
San Diego Mission Valley and Murphy Canyon

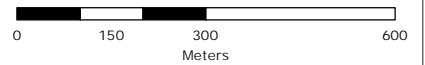
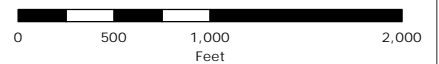
Legend

Benzene µg/L

- 1-100
- 100-1,000
- 1,000-10,000
- 10,000+

Residual LNAPL Zone

1: 12,000



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PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0

Date: 2/19/2015

Figure
1.3a

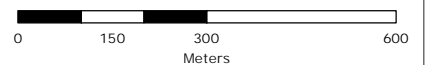
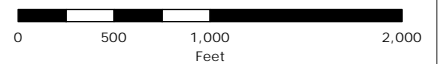


November 2007 benzene concentration contours,
San Diego Mission Valley and Murphy Canyon

Legend

- | | |
|--|--|
| <p>Benzene µg/L</p> <ul style="list-style-type: none"> 1-100 100-1,000 1,000-10,000 10,000+ | <p> Residual LNAPL Zone</p> |
|--|--|

1: 12,000



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0

Date: 2/19/2015

Figure
1.3b



November 2009 benzene concentration contours,
San Diego Mission Valley and Murphy Canyon

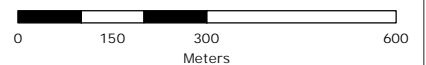
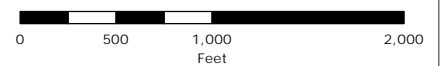
Legend

Benzene µg/L

- 1-100
- 100-1,000
- 1,000-10,000

Residual LNAPL Zone

1: 12,000



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0

Date: 2/19/2015

Figure
1.3c



November 2011 benzene concentration contours,
San Diego Mission Valley and Murphy Canyon

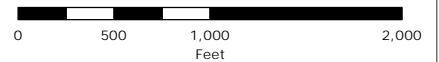
Legend

Benzene µg/L

- 1-100
- 100-1,000
- 1,000-10,000
- 10,000+

Residual LNAPL Zone

1: 12,000



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0

Date: 2/19/2015

Figure
1.3d



October/November 2013 benzene concentration contours,
San Diego Mission Valley and Murphy Canyon

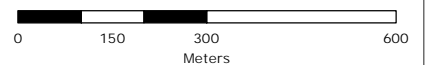
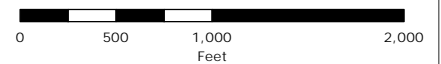
Legend

Benzene µg/L

- 1-100
- 100-1,000
- 1,000-10,000
- 10,000+

Residual LNAPL Zone

1: 12,000



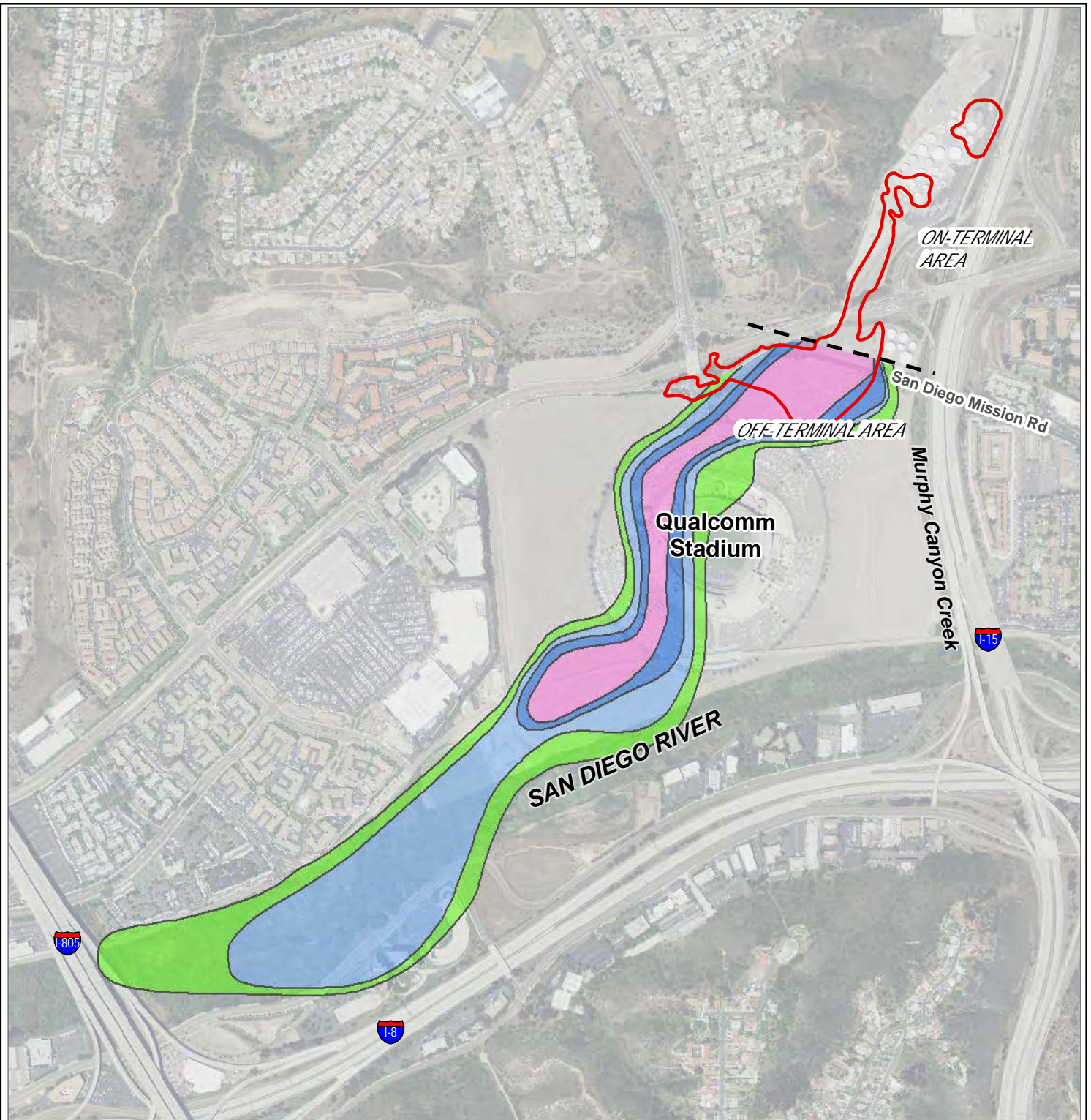
PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0

Date: 2/19/2015

Figure
1.3e



May 2002 MTBE concentration contours,
San Diego Mission Valley and Murphy Canyon

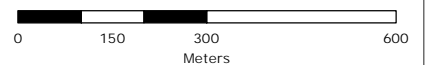
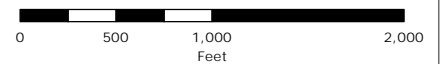
Legend

MTBE µg/L

- 5-10
- 10-100
- 100-1,000
- 1,000-10,000

Residual LNAPL Zone

1: 12,000



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
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CHECK:
REV: 0







Date: 2/19/2015

Figure
1.3f

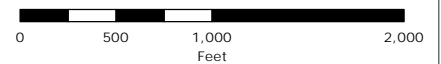


November 2005 MTBE concentration contours,
San Diego Mission Valley and Murphy Canyon

Legend

- | | | | |
|---|---|---|--------------|
|  | Residual LNAPL Zone |  | 10-100 |
| MTBE µg/L | |  | 100-1,000 |
|  | 5-10 (1-10 µg/L North of San Diego Mission Rd.) |  | 1,000-10,000 |
| | |  | 10,000+ |

1: 12,000



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0

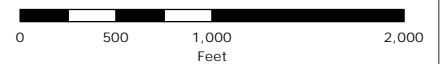
Date: 2/19/2015

Figure
1.3g








November 2007 MTBE concentration contours,
San Diego Mission Valley and Murphy Canyon

1: 12,000



Legend

	Residual LNAPL Zone		10-100
MTBE µg/L			100-1,000
	5-10 (1-10 µg/L North of San Diego Mission Rd.)		1,000-10,000

PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0

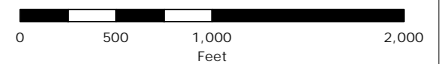
Date: 2/19/2015

Figure
1.3h








November 2009 MTBE concentration contours,
San Diego Mission Valley and Murphy Canyon

1: 12,000



Legend

- | | | | |
|---|---|---|--------------|
|  | Residual LNAPL Zone |  | 10-100 |
| MTBE µg/L | |  | 100-1,000 |
|  | 5-10 (1-10 µg/L North of San Diego Mission Rd.) |  | 1,000-10,000 |

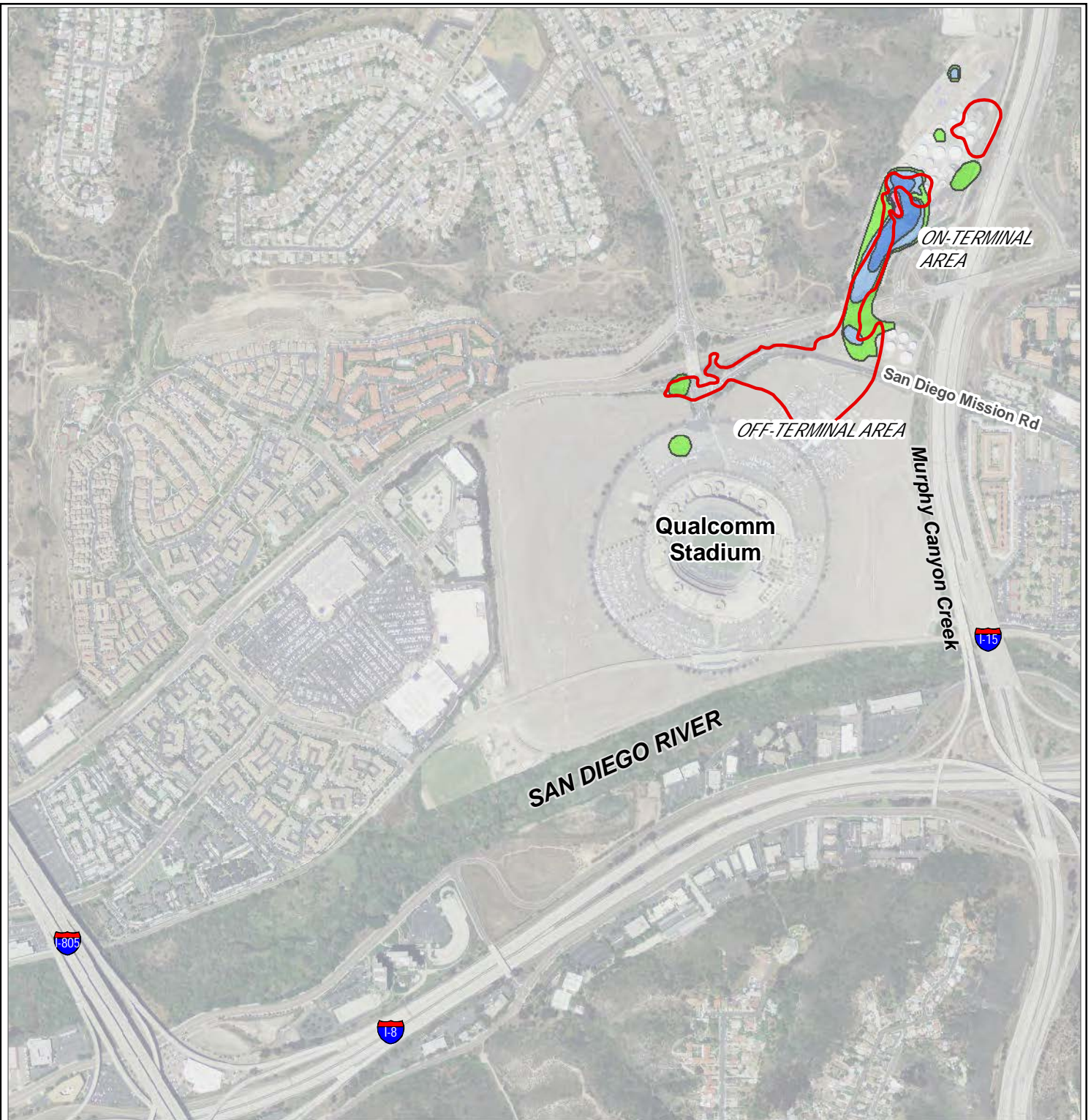
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CHECK:
REV: 0

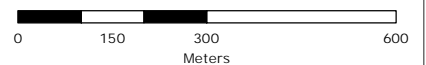
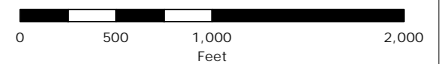
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Figure
1.3i








November 2011 MTBE concentration contours,
San Diego Mission Valley and Murphy Canyon

1: 12,000



Legend

	Residual LNAPL Zone		10-100
MTBE $\mu\text{g/L}$			100-1,000
	5-10 (1-10 $\mu\text{g/L}$ North of San Diego Mission Rd.)		1,000-10,000

PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0






Date: 2/19/2015

Figure
1.3j

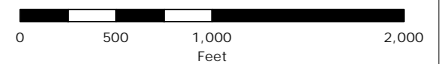


October/November 2013 MTBE concentration contours,
San Diego Mission Valley and Murphy Canyon

Legend

- | | | | |
|---|--|---|--------------|
|  | Residual LNAPL Zone |  | 10-100 |
| MTBE $\mu\text{g/L}$ | |  | 100-1,000 |
|  | 5-10 (1-10 $\mu\text{g/L}$ North of San Diego Mission Rd.) |  | 1,000-10,000 |

1: 12,000



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0

Date: 2/19/2015

Figure
1.3k



November 2005 TBA concentration contours,
San Diego Mission Valley and Murphy Canyon

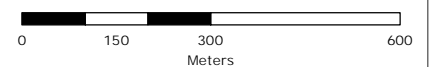
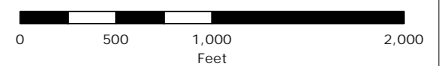
Legend

TBA µg/L

- 10-100
- 100-1,000
- 1,000-10,000
- 10,000+

Residual LNAPL Zone

1: 12,000



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0

Date: 2/19/2015

Figure
1.31



November 2007 TBA concentration contours,
San Diego Mission Valley and Murphy Canyon

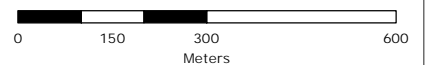
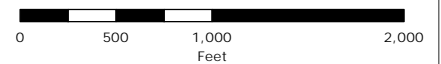
Legend

TBA $\mu\text{g/L}$

- 10-100
- 100-1,000
- 1,000-10,000
- 10,000+

Residual LNAPL Zone

1: 12,000



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0

Date: 2/19/2015

Figure
1.3m



November 2009 TBA concentration contours,
San Diego Mission Valley and Murphy Canyon

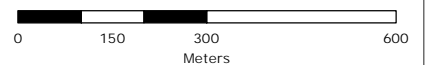
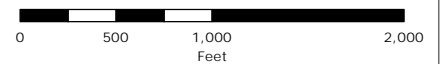
Legend

TBA $\mu\text{g/L}$

- 10-100
- 100-1,000
- 1,000-10,000
- 10,000+

Residual LNAPL Zone

1: 12,000



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0

Date: 2/19/2015

Figure
1.3n



November 2011 TBA concentration contours,
San Diego Mission Valley and Murphy Canyon

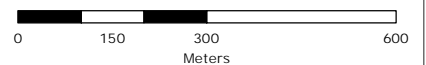
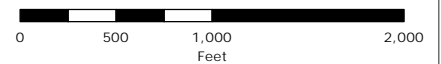
Legend

TBA $\mu\text{g/L}$

- 10-100
- 100-1,000
- 1,000-10,000
- 10,000+

Residual LNAPL Zone

1: 12,000



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
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REV: 0

Date: 2/19/2015

Figure
1.30



October/November 2013 TBA concentration contours,
San Diego Mission Valley and Murphy Canyon

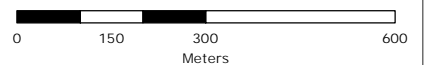
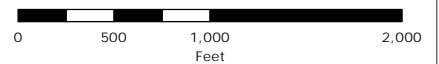
Legend

TBA µg/L

- 10-100
- 100-1,000
- 1,000-10,000
- 10,000+

Residual LNAPL Zone

1: 12,000



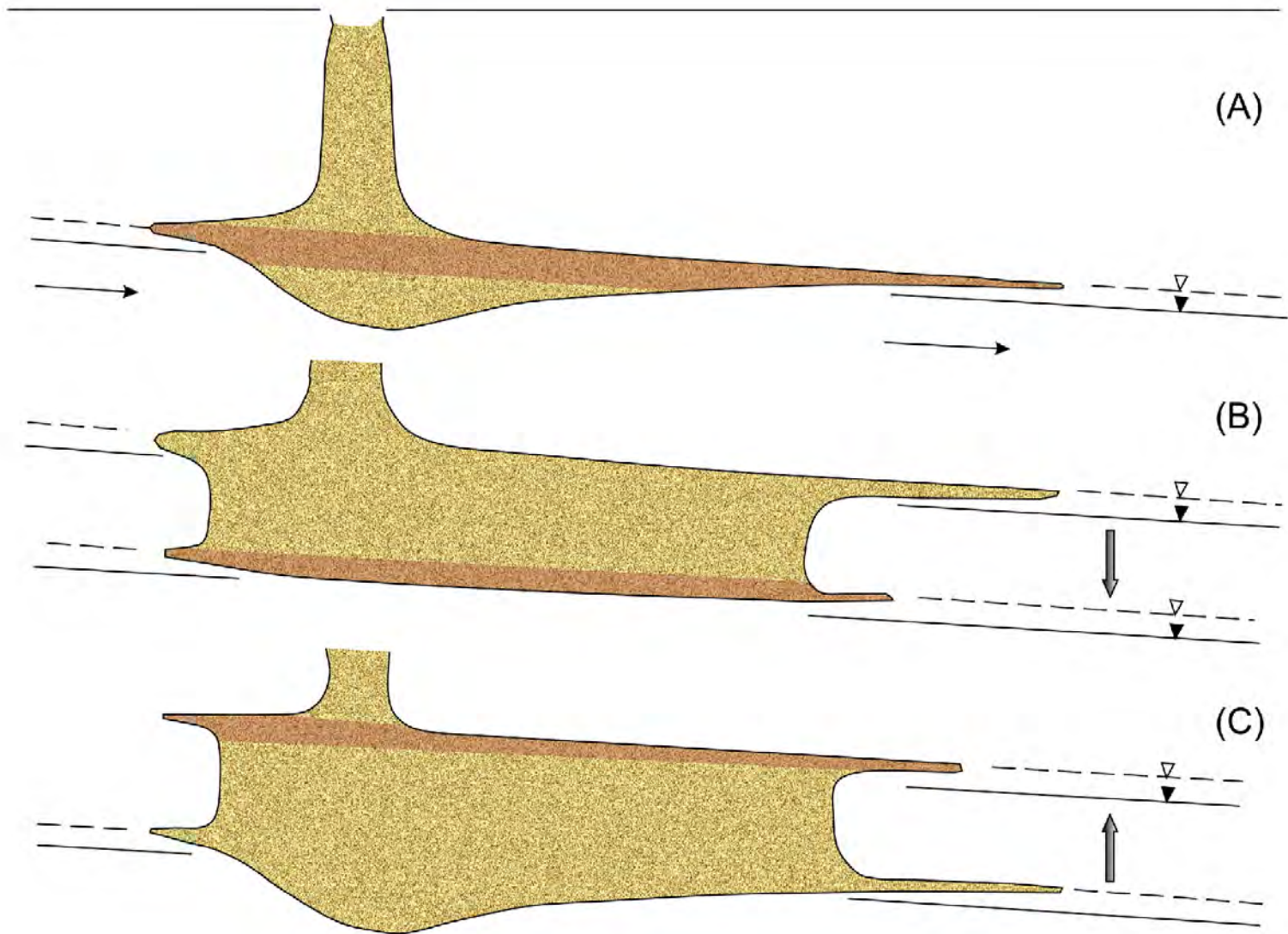
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Mission Valley Terminal Remediation

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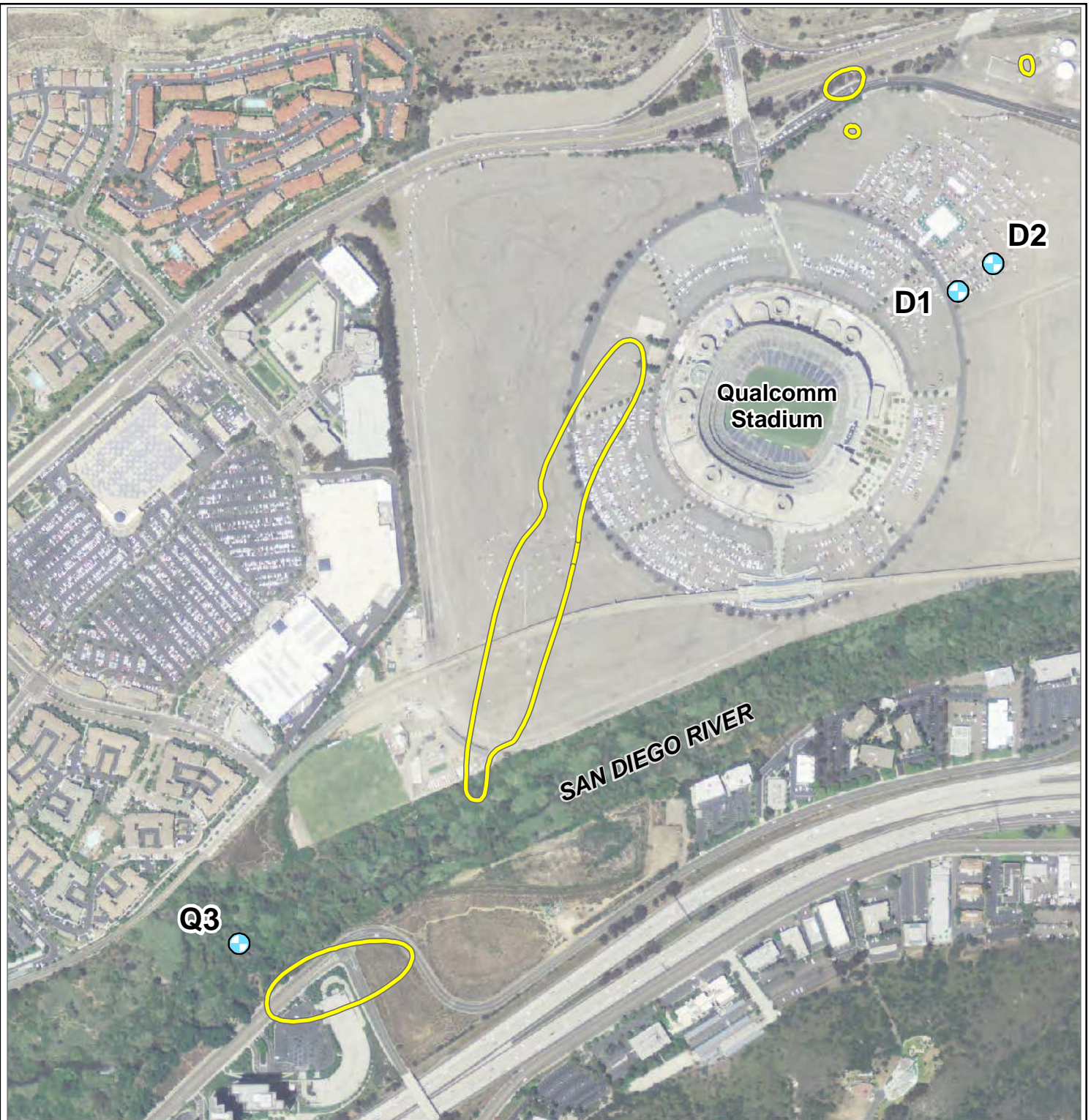
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Figure
1.3p



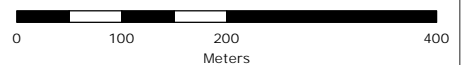
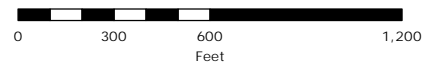
LNAPL redistribution with a rising and falling water table

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Locations of wells sampled by DWR (1959, 1965) prior to Valley urbanization, San Diego Mission Valley and Murphy Canyon

Scale 1:7,200



Legend

-  Water Well
-  TBA Plume 2Q 2012
- 10 ppb

PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

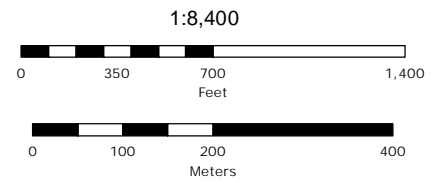
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Figure
1.5



Cross section location map for G-G', G'-G'', and E-E',
San Diego River Valley and Murphy Canyon



Legend

-  KMEP Monitoring Well
-  KMEP GWE Well
-  City Monitoring Well

PROJECT No. 07-204-1	
PROJECT Mission Valley Terminal Remediation	
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Date: 2/19/2015	

2 GROUNDWATER QUALITY IN THE QUALCOMM STADIUM AREA

2.1 Monitoring Wells in the MTBE/TBA Plume

Figure 2.1 shows the distribution of monitoring wells (MWs) referred to in this section. Those labelled with the prefix R- refer to those of KMEP, the 'Respondent' in CAO 92-01. Those MWs with the suffix –AS are typically completed with 20 ft long, two-inch schedule 40 PVC well screens and are completed to monitor the water table. Those with suffixes –AM and –AD have 5 ft long screens and are completed to monitor the middle sands and basal gravel units of the MVA.

Those labeled MW-1, -2 and -3 are CMT-type multi-level wells (Einarson and Cherry, 2002) installed by the City in 2013 and 2014 to provide discrete groundwater samples from various depths rather than the averaged-volume samples that are produced by the KMEP monitoring wells. We discuss below why the use of GWE wells for monitoring progress towards the cleanup levels is inappropriate. Multi-level wells are widely used at Superfund sites and the "(e)xtensive use (of) depth-discrete soil and groundwater sampling methods for vertical and horizontal delineation" of MTBE was endorsed by LFR (Nichols et al., 2000). Construction details of MW-1, -2 and -3 are presented in Appendix A.

2.2 Groundwater Extraction from the MTBE/TBA Plume

Groundwater extraction of the MTBE/TBA plume was initiated with the installation of RW-8 and RW-9 in January 2003. According to KMEP's consultants (LFR, 2007a, p. 7), "*the objective of wells RW-8 and RW-9 is mass removal rather than hydraulic containment*". MTBE underwent rapid biodegradation to TBA as can be seen in the sequence of Figures 1.3 and it appears likely that this and their isotopic data persuaded LFR to be confident of the biodegradation of TBA by 2013 without additional GWE wells. However, later in 2007 LFR (2007b, p. 37) concluded that additional GWE wells were needed to remediate the MTBE/TBA plume by the December 2013 deadline.

The GWE rates for RW-8 and RW-9 are shown in Figure 2.2. The additional GWE wells RW-107 and RW-108 were installed in 2009 and 2010 respectively, as a result of tanker spills, but were not brought into production until late 2010. The network of GWE wells shown in Figure 2.3 was installed in two phases. The first group of these GWE wells was commissioned in 2009, while the second group was commissioned in 2012 after it became apparent in 2011 that the rate decline of TBA concentrations was insufficient to reach the cleanup criterion of 12 µg/L by December 2013. The overall GWE rate from all GWE wells is shown in Figure 2.4.

A cross-sectional view through this well field is shown in Figure 2.5 illustrating the full penetration throughout the MVA of the RW-series GWE wells. Such fully penetrating GWE wells are efficient when a contaminant plume is dispersed throughout the full thickness of the aquifer under remediation, which has never been the case with the MTBE/TBA contamination of the MVA. KMEP has long known that the MTBE/TBA plume down-gradient of R-42 was migrating through the basal gravel unit of the MVA. In 1999 the MTBE plume was detected at 1,200 µg/L in monitoring well R-21AS (see Figure 2.1 for location of the R-21 monitoring well cluster) and shortly thereafter MTBE biodegraded into TBA, which became the principal contaminant in R-21AS (see Figure 2.8, Geofirma/INTERA 2013 where it is incorrectly labelled R-21AD). Over the next five years the MTBE/TBA plume was present deeper in the MVA and by 2005 the plume was migrating at the depths of R-21AD and R-21FS, approximately 40 ft bgs.

Therefore it is unclear why KMEP chose to install fully-penetrating GWE wells in 2008 and again in 2011 (Arcadis, 2011c) along this cross section between RW-99 and RW-51 when the contamination, measured as total MTBE+TBA concentrations $> 10 \mu\text{g/L}$, was confined to the deep basal gravel unit of the MVA (e.g., Figure 8 inset, 1Q2011 Quarterly Groundwater Monitoring Report, Arcadis 2011b) and not dispersed throughout the whole cross section. GWE from such wells would have resulted in large volumes of groundwater with $< 10 \mu\text{g/L}$ contamination being extracted at a time when limitations on treatment plant capacity were evident.

These limitations were obvious after early 2009, when the first set of GWE wells to extract MTBE- and TBA-contaminated groundwater from the 'distal plume' in this area west and southwest of the Stadium were commissioned. At that time the distal plume was allocated the lowest of the three priorities for GWE and treatment (see LFR, 2009, page 19). Therefore it is unsurprising that residual TBA contamination remains in the MVA in 2014.

Because of the full penetration of the GWE wells, in 2014 and 2015 the reported measurements from the RW-series GWE wells will yield diluted samples compared with samples collected only from the basal gravel unit. Therefore, it is the deeper monitoring wells (-AM, -AD and -FS) with the shorter screen intervals in the cross section shown in Figure 2.5 that should be evaluated most carefully in the performance assessment for contaminant rebound of the cleanup of the MTBE/TBA plume.

Figure 2.6 illustrates the rate of decline of TBA in GWE wells located on the Qualcomm Stadium property since 2009 when the MTBE/TBA plume was finally hydraulically contained. Three of the four recovery wells – RW-50, RW-101 and RW-51 – had reached the water quality objective (12 ppb) for TBA by December 2013, i.e., the deadline imposed by Addendum No. 5 of CAO-92-01 to achieve the results shown in Table 1.1. However RW-114 exceeded this cleanup level, most probably because it was extracting contaminated groundwater recovered from downgradient areas towards R-28 that were beyond the drawdown cones of the recovery wells when they were operating prior to January 2014. TBA concentrations at RW-114 were < 10 ppb in both August and November sampling events.

2.3 City Monitoring Well Data

2.3.1 Quality Control and Data Interpretation

In 2013 and January 2014, the City of San Diego installed three multi-level monitoring wells both up-gradient (MW-1) and down-gradient (MW-2 and MW-3) of the MVT (see Figure 2.1). The intention in installing MW-1 in the center of Murphy Canyon was to establish the baseline groundwater quality (GWQ) prior its contamination by releases at the MVT. MW-2 and MW-3 were installed in the MVA immediately down-gradient of the MVT to determine if the cleanup objectives (Table 1.1) are being met.

GWQ samples were sampled by Blaine Tech Services of San Jose CA and analyzed by two laboratories: (i) the City's Water Quality lab within the Public Utilities Department and (ii) FGL of Santa Paula CA. The City lab analyzed only for coliform bacteria and volatile organic compounds (VOCs), including TBA and MTBE. FGL analyzed for a large suite of VOCs and major inorganic solutes. Blaine conducted field electrode measurements of DO, ORP, pH, SEC and colorimetric measurements of alkalinity, DO, iron and sulfide. A comparison of City and FGL analytical data is presented in

Appendix B and the complete data set for the City of San Diego monitoring wells is contained in Appendix C.

The sampling events at MW-1, MW-2 and MW-3 were conducted for the City by Blaine Tech Services on the following dates:

- 1Q 2014: 14-16 January and 11-13 February 2014
- 2Q 2014: 14, 15 & 17 April 2014
- 3Q 2014: 21-23 July 2014
- 4Q 2014: 20-22 October 2014
- 1Q 2015: 26-29 January 2015

MW-1 has anomalous TDS values that are significantly higher than elsewhere in the Valley, the reason for which is unknown although waste disposal in the area now occupied by the golf practice range north of the MVT is suspected. The MW-1 dissolved oxygen (DO) concentrations are considered to be < 1 mg/L throughout all four sampling events based on comparison with other field data that was scrutinized using the methods discussed below. While some total coliform bacteria were present in Port 4 (35/100 mL, basal gravel aquifer at 30 ft bgs), the samples analyzed by the City's Water Quality lab were anoxic but free of regulated organic contamination).

The rest of this discussion concerns **MW-2 and MW-3**, which are immediately downgradient of the MVT. The locations of MW-2 and MW-3 within the MVA are identified along the E-E' cross section in Figure 2.7 together with those monitoring wells installed by KMEP. MW-2 is adjacent to R-79, while MW-3 is adjacent to R-38 (see Figure 2.1 for locations). As the water table recovers following the cessation of GWE operations in all of KMEP's Off-Terminal wells², the various sampling ports of MW-2 and MW-3 have responded by yielding groundwater samples.

Figure 2.8 presents the responses of four CMT sampling points over the course of 2014. The deepest sampling port shown in Figure 2.7 is Port 6; the shallowest is Port 1³. The high initial pulses of DO shown in Figure 2.8 (upper graph) disappear after 2Q. These were likely due to entrapped air in the CMT sampling ports following installation and to residual air introduced during SVE operations within the MVA itself. This residual air may be the cause of the higher 2Q DO results shown in Figure 2.8.

With time, ferrous iron appears (Figure 2.8 lower graph) in the samples reflecting the recovery of the water table and its inundation of the sampling port. Therefore, Figure 2.8 shows that the initial sample analyses are not reliable indicators of the ambient GWQ in the MVA at MW-2 and MW-3. This probably applies to each sampling port for a period of one or two quarters of sampling following its inundation by the rising water table.

² With the exception of the local effects caused by the continuing pumping of the Property Boundary Containment Barrier wells RW-35 and RW-36 along San Diego Mission Road, see Figure 2.1 for locations.

³ This is not the case with MW-1, where the shallowest is Port 6, the next deeper port is Port 2, then Ports 3, 4 and 5, see Appendix A.

If groundwater samples are actually from an oxidizing groundwater environment, i.e., the early time results shown in Figure 2.8 (upper), it is necessary that the measured DO reading – whether electrode or colorimetric – is matched with:

- a) an Oxidation-Reduction Potential (ORP) measurement that is strongly positive (and therefore an Eh \geq 300mV, see Whitfield, 1974);
- b) the absence of dissolved ferrous iron or sulfide in colorimetric testing in the field; and
- c) the absence of dissolved ferrous iron, manganese or methane in laboratory analyses.

Figure 2.9 shows the DO profile for MW-2 and MW-3 sampling ports during 1Q 2015 by which time the sampling ports had been inundated for over six months. Two redox environments appear to be present:

- 1) above 30 ft elevation, the groundwater is oxidizing; and
- 2) below 30 ft elevation, the groundwater is mainly reducing with a few exceptions where groundwater samples measure DO at \geq 1 mg/L

Above 30 ft elevation, the sample ports are newly inundated and appear to still reflect entrapped air from the MVA and/or from CMT installation; these are outlined with an oval. These DO concentrations may (see Figure 2.8) disappear with time and be replaced with Fe(II).

Below 30 ft elevation, most of the groundwater samples display DO < 1 mg/L, which is considered the MDL for DO given the field measurements in open air conditions. Thus, reducing conditions predominate in the first Quarter of 2015 for the sampling ports in MW-2 and MW-3 beneath an elevation of 30 ft amsl. Analytical data for these samples are displayed in Table 2.1.

Table 2.1 Chemical analysis of deep groundwater samples with DO \geq 1 mg/L in Figure 2.9

Monitoring well	Data in $\mu\text{g/L}$			Lab data in mg/L					Eh	Elevation
	TBA	As	CH4	TDS	DO	DOC	Fe	Mn	mV	amsl (ft)
1Q 2015										
MW-2 Port 5	<1.0	10.7	3.1	1870	1.4	15	0.97	0.74	-59	5.53
MW-2 Port 6	<1.0	5.8	1.2	1740	1.2	45	0.92	0.45	-56	-9.47
MW-3 Port 6	4.3	7.6	1990	1000	0.8	20	0.57	1.66	-102	-4.63
<i>amsl:</i> indicates elevation of sample port above mean sea level in ft; Fe and Mn are laboratory analyses not field colorimetric data; DO are field electrode measurements TBA measurements conducted by the City of San Diego laboratory; other lab data by Eurofins										

In all three deep samples of groundwater shown in Figure 2.9 in which DO \geq 1 mg/L, the presence of methane and elevated dissolved organic carbon (DOC), as well as dissolved iron and manganese indicates that the DO measurements are not from the groundwater sample but are likely due to air entrainment during sampling. Therefore, we conclude a reducing environment exists beneath an elevation of 30 ft amsl – i.e., in the basal gravel aquifer – that will have the implication that any TBA detected is unlikely to biodegrade (Geofirma and INTERA, 2013). Despite the high DOC values, none of these samples has TPH (gasoline) measured at concentrations >50 $\mu\text{g/L}$.

An indirect means of testing for the presence of DO in a groundwater sample is to examine the ORP measurements using platinum (Pt) electrodes. These measurements are taken over time (~15

minutes) in an enclosed flow cell and expose the Pt electrode to DO, sulfide and other anions that can form surfaces on the Pt. Whitfield (1974) pointed out that surface oxide coatings on the Pt electrode would affect the measured potential.

We use this principle to test for the presence of DO in groundwater samples. The formation of an oxide surface coating (Pt-O), Whitfield proposed, would lead to the Pt electrode responding to pH rather than any particular DO concentration, i.e., the measured potential (E) would be:

$$Eh = E_0(Pt-O) - 0.06 pH, \text{ where } E_0 = 880 \text{ mV} \quad (5)$$

Whitfield postulated that “well aerated systems” would yield Eh values in the range +500 to +300 mV.

Figure 2.10 illustrates the computed Eh and measured pH values for all MW-2 and MW-3 samples from the 2014 Quarterly field sampling events plotted in Figure 2.9. Line b in Figure 2.10 is the plot of equation 5 above. Lines a and c express other Pt-oxide potentials (see Whitfield, 1974) and bracket a number of samples that measure DO at ≥ 1 mg/L. Samples that contain DO ≥ 1 mg/L should plot between lines a and c indicating the presence of DO in groundwater that forms a surface oxide coating on the Pt electrode during exposure to the groundwater stream in the flow cell.

Inspection of the data points plotting between lines a and c indicates that six samples from three sampling ports in MW-2 and MW-3 appear to indicate the presence of DO that exhibit Pt electrode potentials consistent with the presence of DO in the samples. These six samples are shown in Table 2.2 below.

Table 2.2 Field data for City monitoring wells MW-2 and MW-3 collected during 2014

Monitoring well	Monitoring Event	pH	ORP	Eh	DO Electrode	DO Colorimetric	Fe Colorimetric
			mV	mV	mg/L	mg/L	mg/L
MW-2 Port 2	4Q 2014	7.2	87	287	4.0	4	0.0
	3Q 2014	7.0	357	557	3.0	3	0.0
MW-2 Port 6	3Q 2014	6.3	260	460	1.4	1	2.2
	2Q 2014	6.7	104	304	7.4	7	0.0
MW-3 Port 2	4Q 2014	6.9	106	306	3.7	4	0.0
	3Q 2014	6.5	295	495	2.9	3	0.0

Note: The conversion of field-measured ORP to Eh involved adding 200 mV to each of the ORP readings assuming a gel electrode based on Zobell solution measurements. This 200 mV corrects the measured ORP to the standard hydrogen electrode potential scale thus yielding Eh.

The following observations are made:

- MW-2 Port 2 and MW-3 Port 2 samples are consistent with the presence of DO at 3-4 mg/L.
- MW-2 Port 6 samples are not consistent with the presence of DO because of the presence of dissolved colorimetric Fe(II) at 2.2 mg/L and lab detected methane, iron, manganese and

DOC as shown in Table 2.1, i.e., the reported DO is likely entrained during sampling. The 2Q 2014 MW-2 Port 6 sample plots on line c and is a false positive with respect to this QC test.

Because of the trend towards reducing conditions shown in Figure 2.8 for DO and Fe(II), it is likely that the shallow sampling ports in MW-2 and MW-3 will eventually show increasing Fe(II) and decreasing DO concentrations indicating reducing conditions as shown in Figure 2.9. The DO values shown in Table 2.2 most probably represent temporary redox conditions as air trapped in the MVA during CMT monitoring-well installation and many years of SVE operations is displaced and the DO reduced by residual petroleum hydrocarbons (see section 2.3.3).

This practice illustrated by Figure 2.10 and Table 2.1 provides quality control of field data, particularly in the case of DO measurements that are conducted in open air such that tubing leaks and loose fittings can allow the ready entry of air into the sample and cause false positive DO measurements, particularly when flow rates are low because of the small tubing size of the CMT wells. Such sample contamination is identifiable by simultaneous field measurements of ORP, ferrous iron and sulfide.

2.3.2 Stable Isotopes

The multi-level GWQ data acquired through these monitoring wells has allowed the discrimination of the two different origins of groundwater in the Lower San Diego River Valley that is evident in TDS concentrations and in the stable isotopes of groundwater, i.e., $\delta^{18}\text{O}$ ("oxygen 18") and $\delta^2\text{H}$ ("deuterium"). Figure 2.11 is a plot of these isotopes in the Lower San Diego River Valley that clearly indicate the difference between the modern groundwater in the MVA and adjacent groundwater from pre-modern times.

The following conclusions are drawn from Figure 2.11 supplemented by information from Sengebusch et al. (2015):

- a) *Modern groundwaters* plot along the axis of the 'GW Correlation'. These include the MW-1, -2 and -3 sampling ports except the deepest port in each of these monitoring wells, which ports were installed into the underlying Friars Fm. Also plotting on this axis is the basal-gravel monitoring well data for the DB site (see Figure 1.1), i.e., DB-1, DB-2 and DB-2B, and the shallowest monitoring well in the USGS' SDAQ well (J7, screened interval: 30-50 ft bgs). These groundwaters have a TDS concentration < 1,700 mg/L, except SDAQ/J7 (1930 mg/L) which is screened across both Quaternary and Friars units. The data from the DB-series monitoring wells are discussed in the section 3 of this Report.
- b) *Pre-modern groundwaters* plot between the Global Meteoric Water Line (GMWL) and the GW Correlation Line. These include samples identified as 'Friars GW' from the deepest sampling ports from MW-1, -2 and -3, which were from installed into the Friars Formation. These brackish groundwaters are believed to be associated with the invasion of seawater into the Valley 120,000 years ago during the Sangamon Interglacial period (Sengebusch et al., 2015). Also included in this group are groundwaters sampled by the USGS in the deep monitoring wells at SDAQ, the River Walk Golf Course (RWGC2) and the Mission Basilica de San Diego (Mission), all of which are shown in Figure 1.1. These groundwaters from the Friars and deeper formations exhibit a TDS >1,800 mg/L due to residual salinity or, in the case of RWGC2, modern seawater intrusion.

- c) *San Diego River Water samples* are scattered. All samples were collected during periods of storm runoff, i.e., March 2004, March 2005, February 2009 and January 2010. High streamflow, i.e., > 100 cubic feet/second (cfs), occurred during these sampling events, with the apparent exception of the March 2004 sample when flows were on average ~25 cfs. Both the March 2004 and the January 2010 samples plot on the 'GW Correlation' line, while the remainder plot on or adjacent to the Global Meteoric Water Line (GMWL).

It appears that the MVA, i.e., both the paleochannel beneath the Qualcomm Stadium and that beneath the main channel of the River (DB data), is recharged by discrete storm runoff events producing the unique spatial pattern in the MVA shown in Figure 2.11.

2.3.3 Rebound of TBA

Back diffusion of TBA from low-permeability zones into high-permeability sand and gravel was demonstrated during a study conducted by the University of California at Davis (Rasa et al., 2011) at Vandenberg Air Force Base. The MVA is a similar alluvial aquifer to the Vandenberg aquifer studied by the UC Davis team. Back diffusion – and contaminant 'rebound' -- occurs when TBA is released back into the sand and gravel aquifer following SVE and GWE remediation. 'Forward diffusion' occurs prior to remediation and causes contaminants like TBA to be stored in these low-permeability silts and clays during remediation. Rebound concentrations in monitoring wells depend on the contaminant mass stored in the low-permeability silts and clays and the rate of back diffusion, neither of which are typically known.

The vertical distributions of TBA and DOC in MW-2 and MW-3 in January 2015 are shown in Figure 2.12. The data shown are those analyzed by the City's own Water Quality laboratory. The data indicate that TBA concentrations meet the cleanup level requirement although high DOC concentrations (not TPH-gasoline) are present. Rebound that was observable in late 2014 at MW-2 – see Figure 2.13 – has now dissipated.

Figure 2.14 illustrates the trend in Specific Electrical Conductance in the basal gravel unit sampled by MW-2 and MW-3 during 2014 and 2015. The measurements have converged towards a mean value of 3,360 $\mu\text{S}/\text{cm}$. Using the USGS (Wright and Belitz, 2011) expression for calculating TDS from SEC, this is equivalent to TDS ~2,100 mg/L. The origin of this high TDS is likely to be the upper part of the Friars Formation and residual TDS groundwater produced during bioremediation of the LNAPL.

2.4 KMEP Monitoring Well Data

Figure 2.15 indicates that as of July and August 2014 TBA has not reached cleanup concentrations of 12 $\mu\text{g}/\text{L}$ (ppb). Figure 2.16 illustrates remaining contamination in October and November 2014 with minor amounts of TBA remaining in the former LNAPL zone. TBA concentrations in excess of the 12 ppb cleanup goal occur further towards the DB Site.

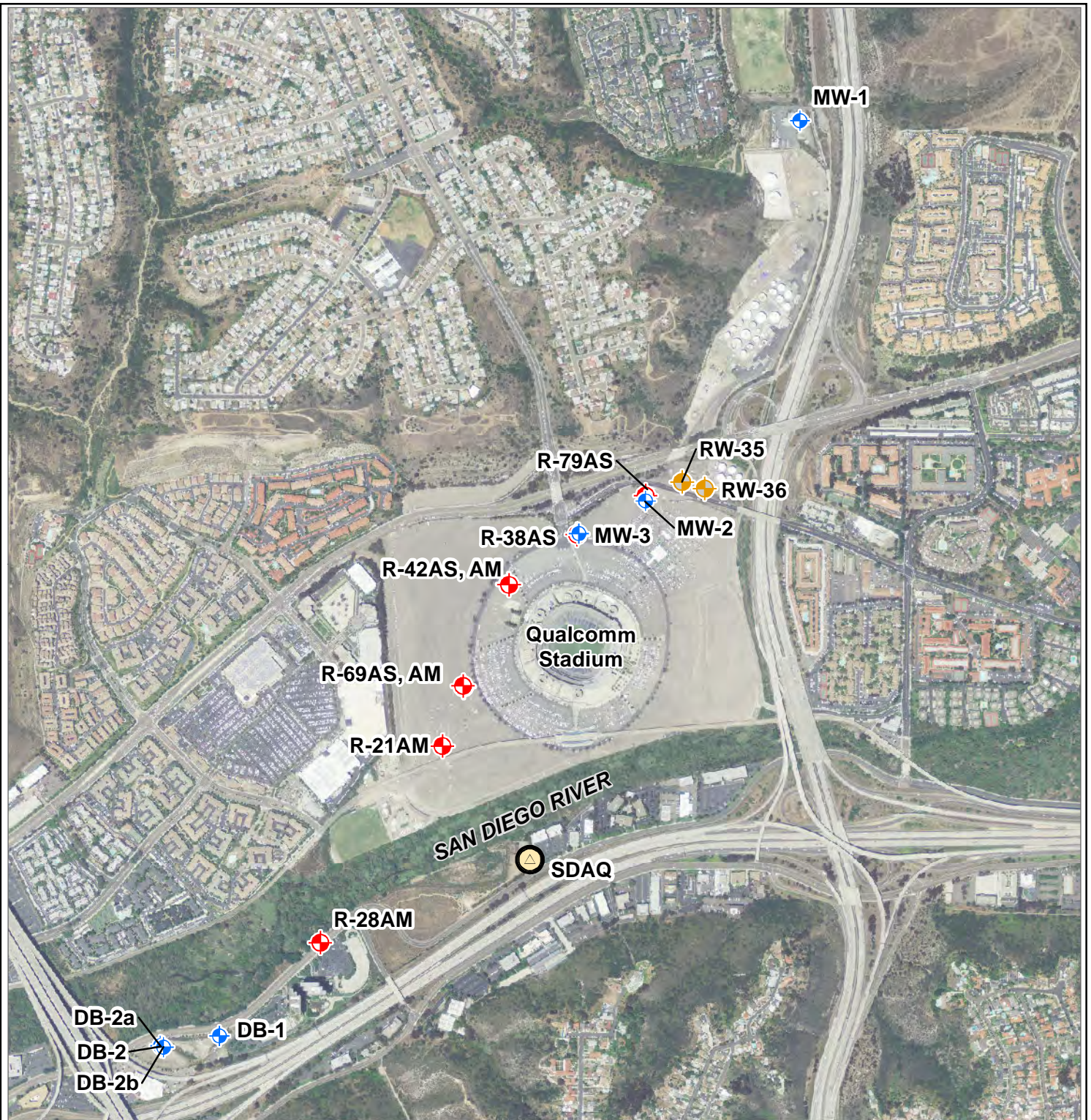
Figure 2.16 also shows the rebound of benzene (2.5 $\mu\text{g}/\text{L}$) in R-9, which has become evident in KMEP's 4Q 2014 data as the water table has finally risen into the LNAPL smear zone. Other monitoring wells have benzene reporting limits above the 1 $\mu\text{g}/\text{L}$ MCL and therefore indicate a lack of demonstrated compliance. Arcadis (2015a) show that the water table at R-9 (Figure 3D) and R-10 (Figure 3E) only reached the lower elevation of the LNAPL smear zone in 4Q 2014, i.e., 41 ft amsl.

Therefore it is unsurprising that only with this 4Q data does the trapped gasoline contamination observed before 2011 re-appear in R-9. This issue was discussed by Geofirma and INTERA (2011, p. 87) and it was pointed out then that remedial compliance could not be evaluated until the water table returned to the elevation over which LNAPL smearing occurred. Arcadis (2015a) show the upper elevation of the smear zone as ~ 48ft amsl, in which case there is another 7 ft of water table rise necessary before the LNAPL smear zone will be fully submerged by the rising water table.

Figure 2.17 shows TBA rebound in KMEP's R-42AS following the cessation of GWE operations in the distal TBA plume on 31 December 2013. Although this monitoring well had insufficient water in its screened interval in late October 2013 and February 2014 for sampling, by May 2014 duplicate samples gave 61 and 52 µg/L (ppb) concentrations of TBA. The re-saturation of a zone of sandy, clayey silt at an elevation of approximately 33 ft amsl appears to be responsible for the back diffusion of TBA into the MVA. Once the water level had recovered above this low-permeability unit and sampling at R-42AS occurred in May 2014, the back-diffusion effect was revealed. The duration of back diffusion depends on the mass of TBA stored in such low-permeability zones and the rate of back diffusion; neither mass nor rate is known. By early August 2014 (3Q), TBA was < 10 µg/L and MTBE present at only 1.7 µg/L. It remains to be seen if TBA remains at concentrations < 10 µg/L.

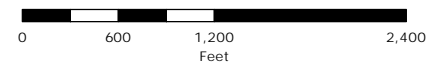
2.5 Summary

- 1) Remedial compliance has not been demonstrated in the Qualcomm area according to Arcadis (2015a) evaluation. TBA and benzene are detectable in monitoring wells north and southwest of the Stadium at concentrations above the cleanup goals.
- 2) The water table still has 7 ft to rise during 2015 at R-9 before the LNAPL smear zone will have been submerged and the stranded contamination exposed. Benzene has re-appeared in this monitoring well at a concentration in excess of the cleanup goal and Federal MCL.
- 3) After five quarters of sampling, reducing redox conditions have re-established themselves with the rising water table in the deeper sampling ports of MW-2 and MW-3.
- 4) It appears that re-oxygenation of the MVA will be prevented by the presence of hydrocarbon compounds not removed by SVE and GWE
- 5) TDS concentrations in the MVA are trending towards a mean concentration ~2100 mg/L.



Locations of City, USGS, and some KMEP wells,
Lower San Diego River Valley

1: 14,400



Legend

- KMEP Monitoring Well
- City Monitoring Well
- KMEP GWE Well
- US Geological Survey Aquaculture Well

PROJECT No. 07-204-1

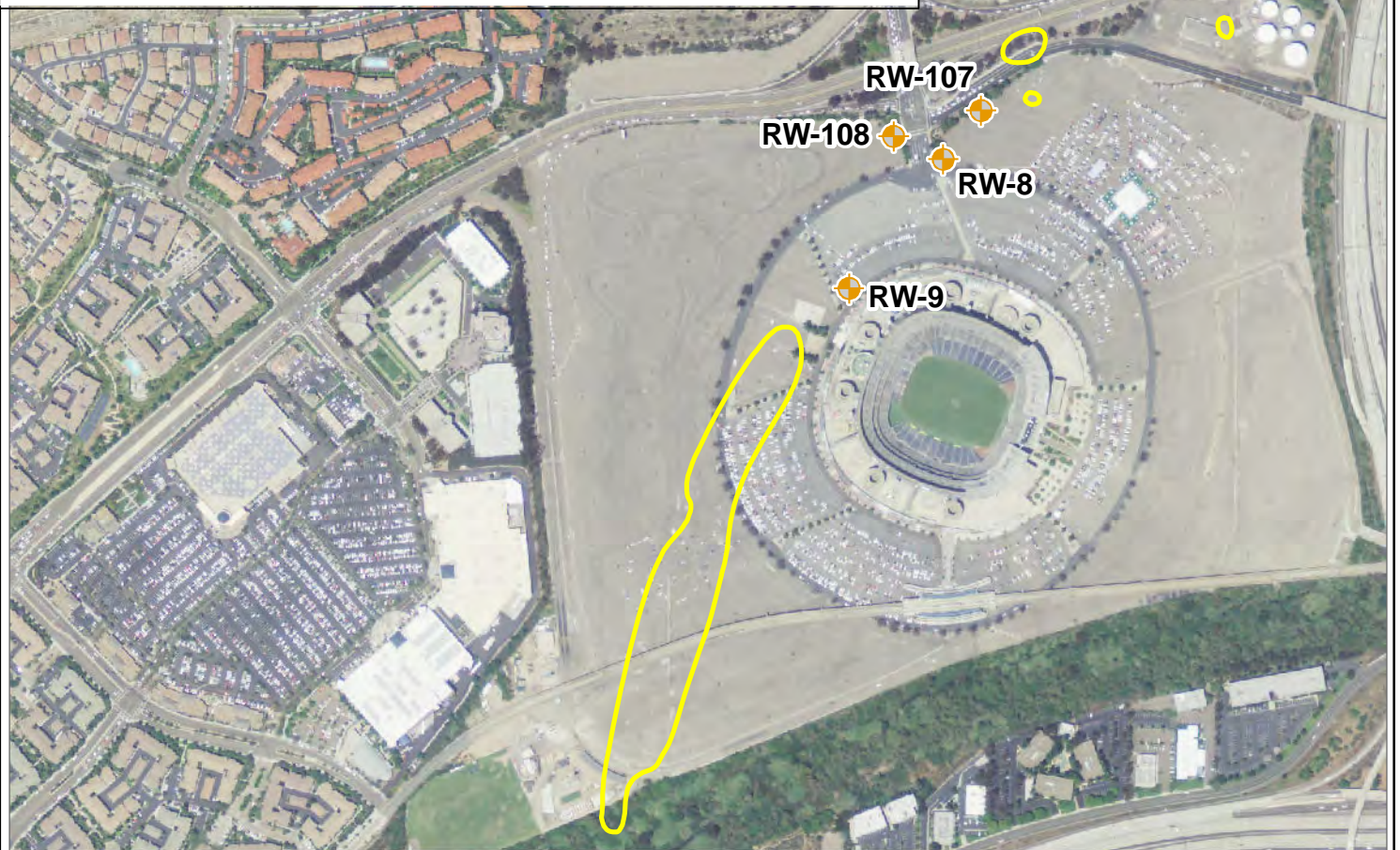
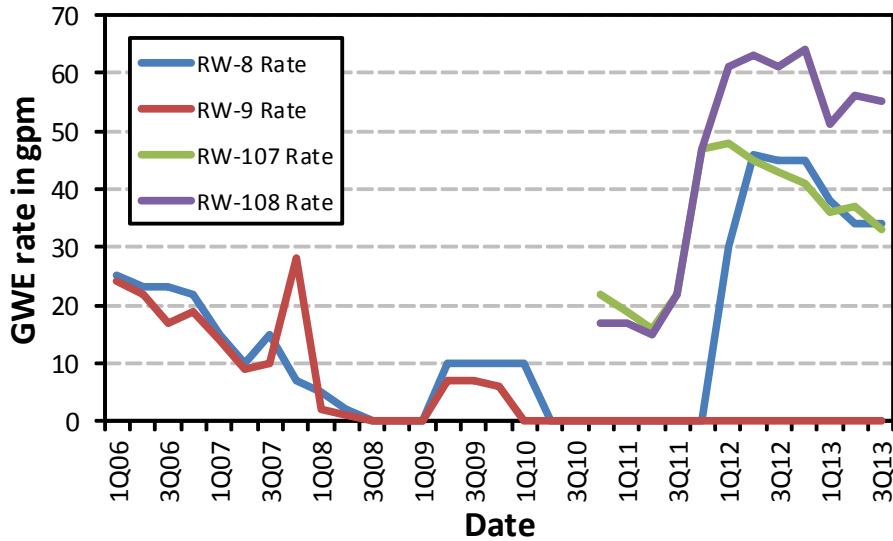
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Mission Valley Terminal Remediation

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CAD/GIS: LEB
CHECK:
REV: 0A

Date: 2/19/2015

Figure
2.1

RW-8, RW-9, RW-107, RW-108



Groundwater extraction flow rates for
RW-8, RW-9, RW-107, and RW-108,
San Diego Mission Valley and Murphy Canyon

Legend

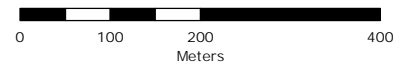
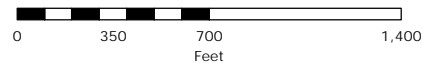


KMEP GWE Well



TBA Plume 10 ppb
(April/May 2012)

1:8,400



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

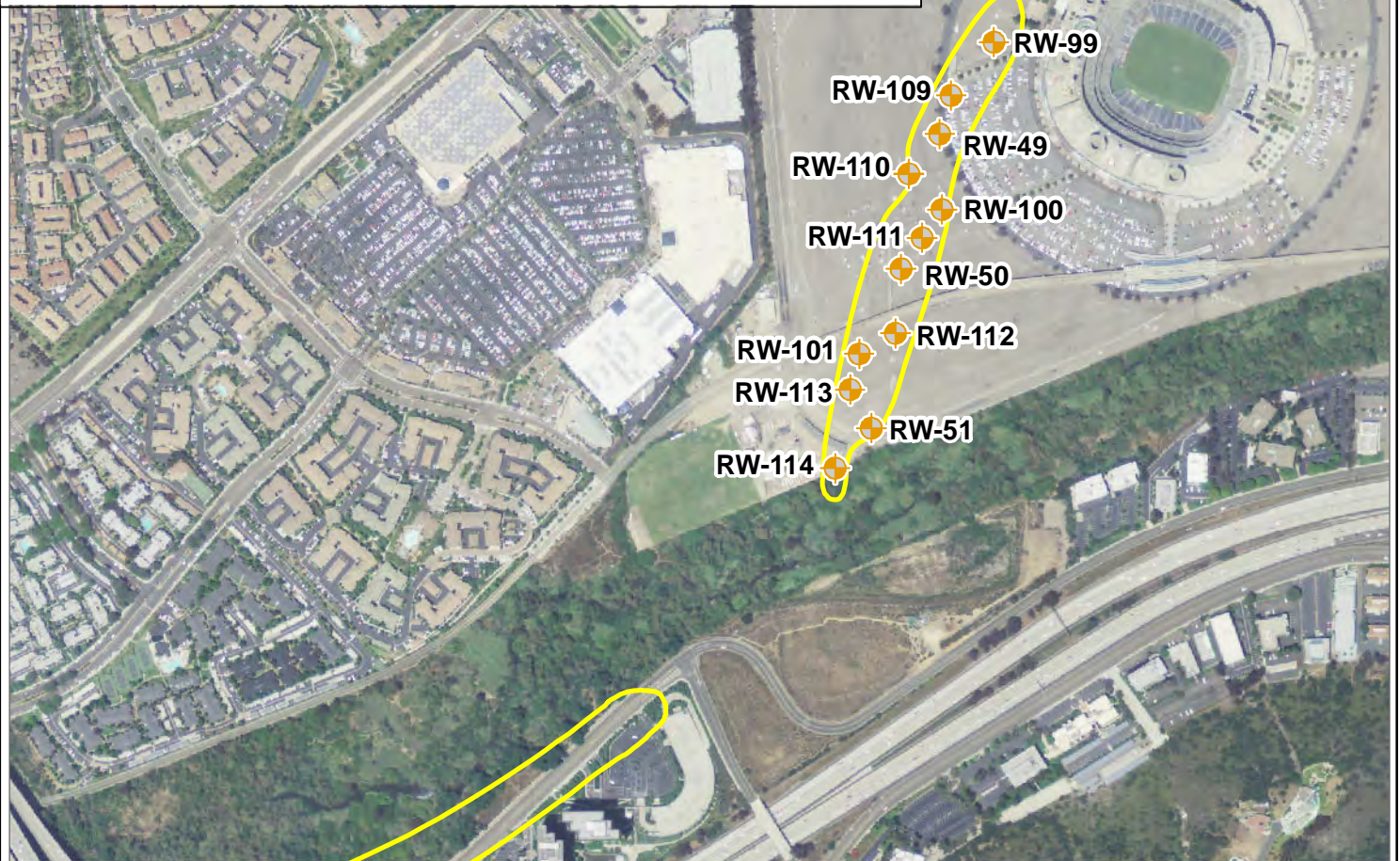
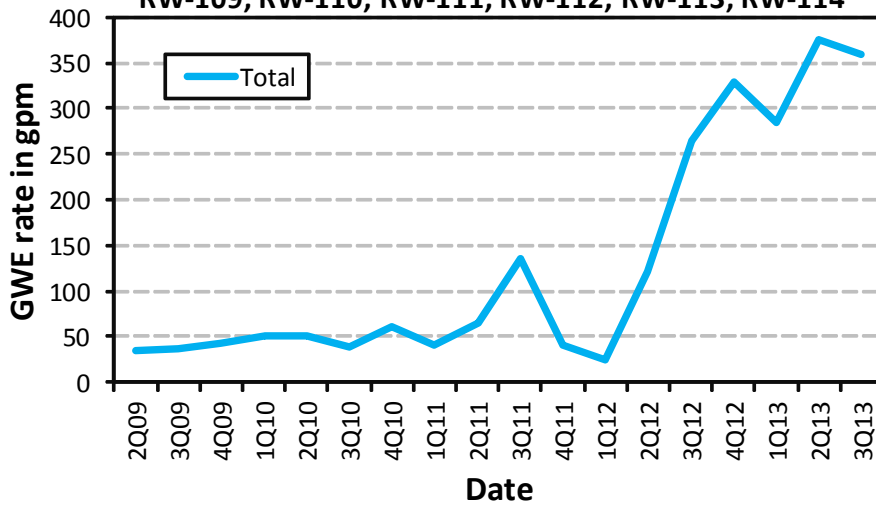
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Date: 2/19/2015

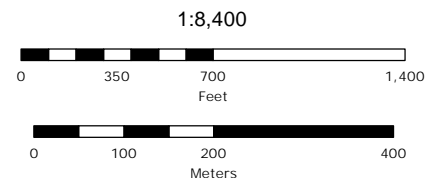
Figure
2.2

Wells

**RW-49, RW-50, RW-51, RW-99, RW-100, RW-101,
RW-109, RW-110, RW-111, RW-112, RW-113, RW-114**



Groundwater extraction flow rates for RW-49, RW-50, RW-51, RW-99, RW-100, RW-101, RW-109, RW-110, RW-111, RW-112, RW-113, and RW-114, San Diego Mission Valley and Murphy Canyon



Legend

-  KMEP GWE Well
-  TBA Plume 10 ppb (April/May 2012)

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DESIGN: CAD/GIS: LEB CHECK: REV: 0	Figure 2.3
Date: 2/19/2015	

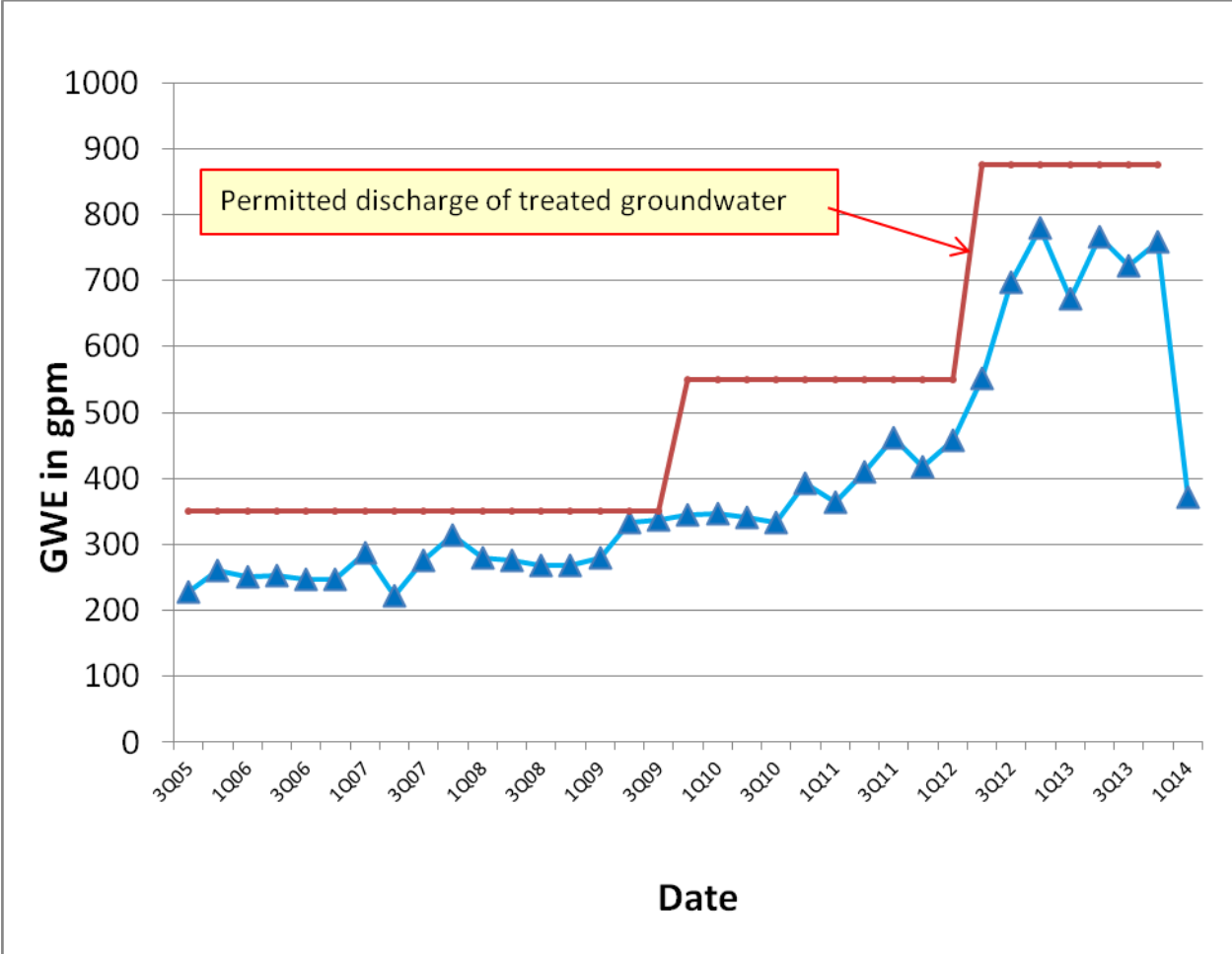
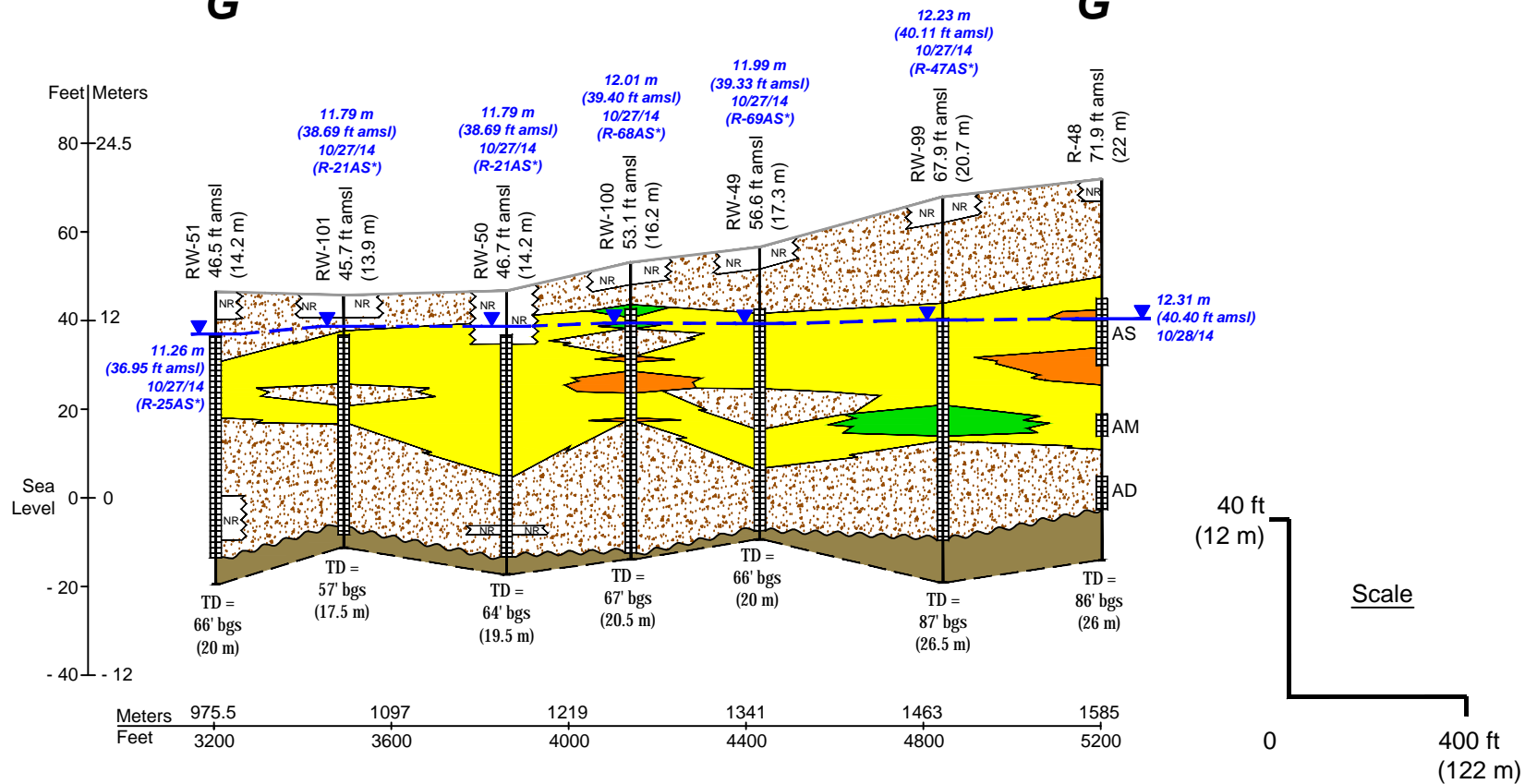


Figure 2.4: total quarterly GWE rates in gallons per minute (gpm) from extraction wells off-Terminal (including RW-35, -36 and -37), 2005 through January 2014. The maximum permitted discharge rate allowed by the NPDES permit was increased in stages from 200 gpm in 1997 to 875 gpm in June 2012 by the RWQCB.

Southwest
G'

Northeast
G''



Legend

- Sandy Clay, Gravelly Clay, & Clay (CH, CL)
- Silts (MH, ML)
- Sand (SC, SM, SP, SW)
- Gravels (GM, GW, GC, or other w/ logged gravel or cobbles)
- Friars Formation
- No Recovery or not logged (NR)
- Erosional Surface
- Screened Interval
- Ground Water Elevation
feet above mean sea level (ft amsl);
4Q 2014
* indicates nearby well used for GW data shown

NOTES:

Well/boring depths from lithologic logs, LFR/Arcadis.
Well elevations are Top of Casing (TOC), feet above mean sea level.
See Figure 1.6 for cross section location.

Cross Sections developed by INTERA, Inc. (R. Sengebusch), March 2014.

**Schematic cross section G'-G''
through off-Terminal well field**

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Date: 3/9/2015	

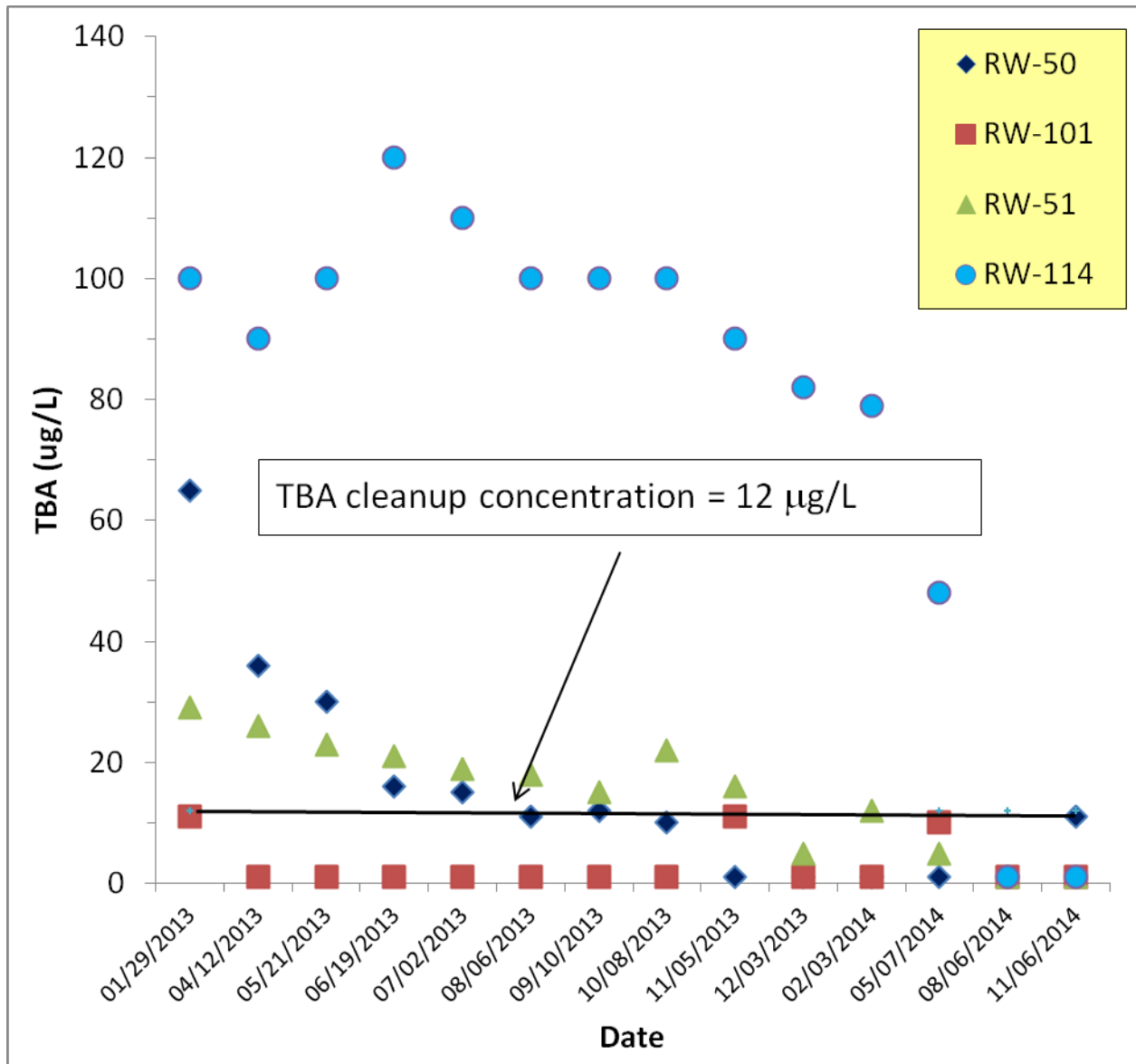
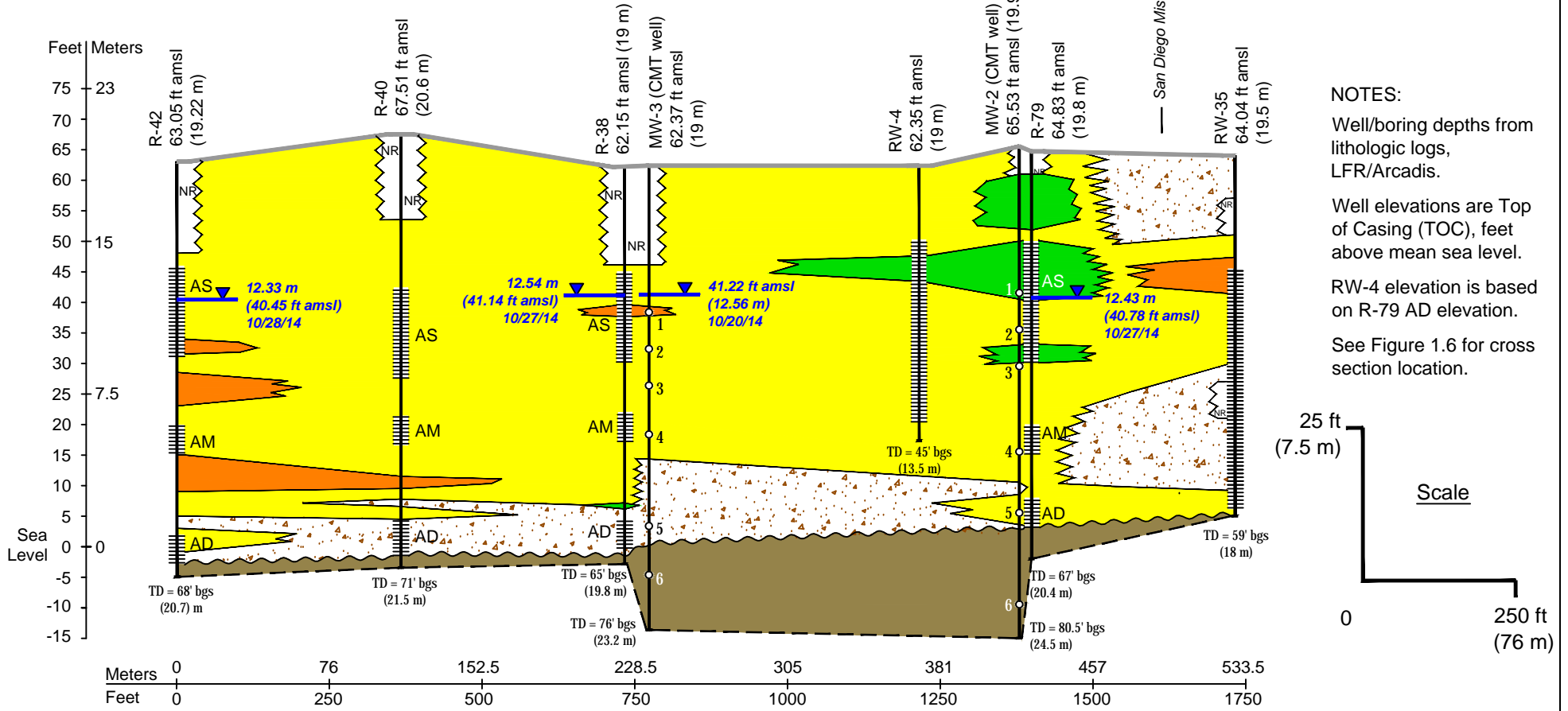


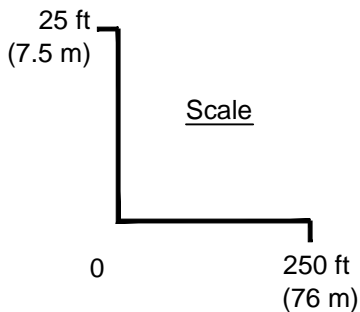
Figure 2.6: Decline curves for TBA concentrations. Well locations are shown in Figure 2.3. Dates are shown in the month/day/year format. All GWE wells had TBA concentrations < 50 µg/L by November 2014, although RW-109, RW-100 and RW-111 all exceeded the 12 µg/L cleanup goal.

Southwest
E

Northeast
E'



NOTES:
Well/boring depths from lithologic logs, LFR/Arcadis.
Well elevations are Top of Casing (TOC), feet above mean sea level.
RW-4 elevation is based on R-79 AD elevation.
See Figure 1.6 for cross section location.



- Legend**
- Sandy Clay, Gravelly Clay, & Clay (CH, CL)
 - Silts (MH, ML)
 - Sand (SC, SM, SP, SW)
 - Gravels (GM, GW, GC, or other w/ logged gravel or cobbles)
 - Friars Formation
 - No Recovery or not logged (NR)
 - Erosional Surface
 - Screened Interval
 - Continuous Multi-Tubing well (CMT) with sampling port number
 - Ground Water Elevation feet above mean sea level (ft amsl); 4Q 2014

Schematic cross section E-E'

PROJECT No. 07-204-1	
PROJECT Mission Valley Terminal Remediation	
DESIGN: CAD/GIS: LEB CHECK: REV: 0	Figure 2.7
Date: 3/9/2015	

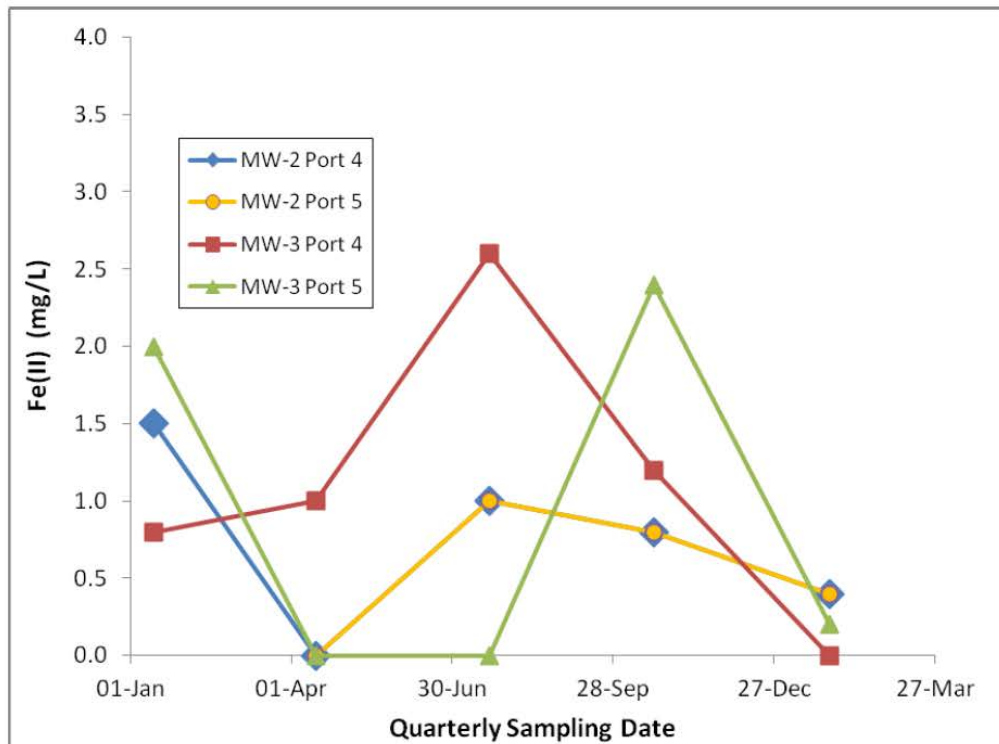
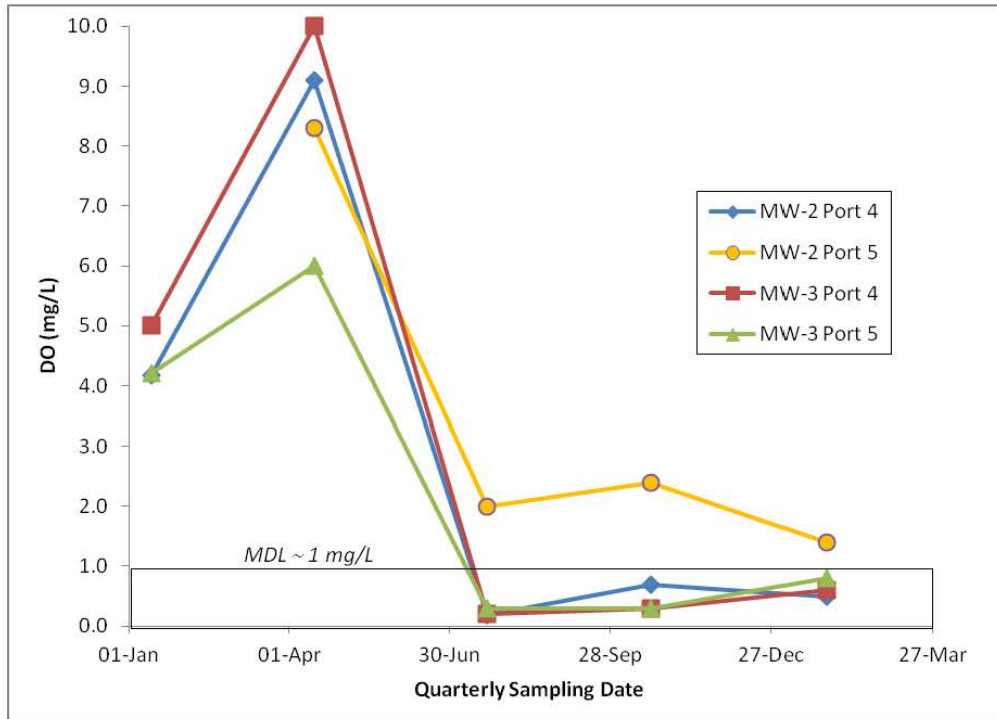


Figure 2.8 Trends in (above) dissolved oxygen (DO) and (below) ferrous iron (Fe(II)) as measured in the field during 2014 and early 2015. These sampling ports are identified on Figure 2.7. See text for discussion of trends.

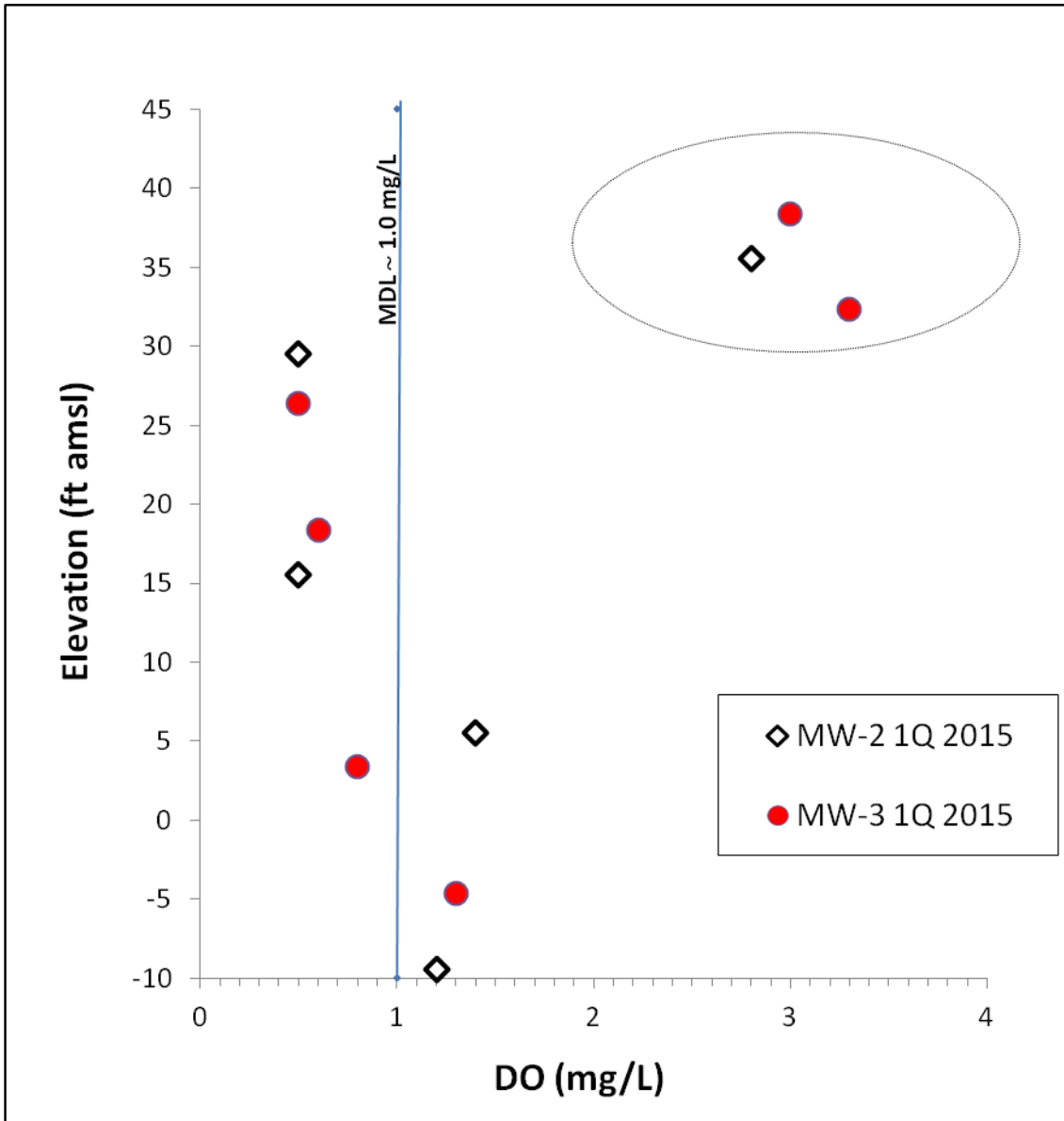


Figure 2.9: DO concentrations (mg/L) in MW-2 and MW-3 during 1Q 2015.

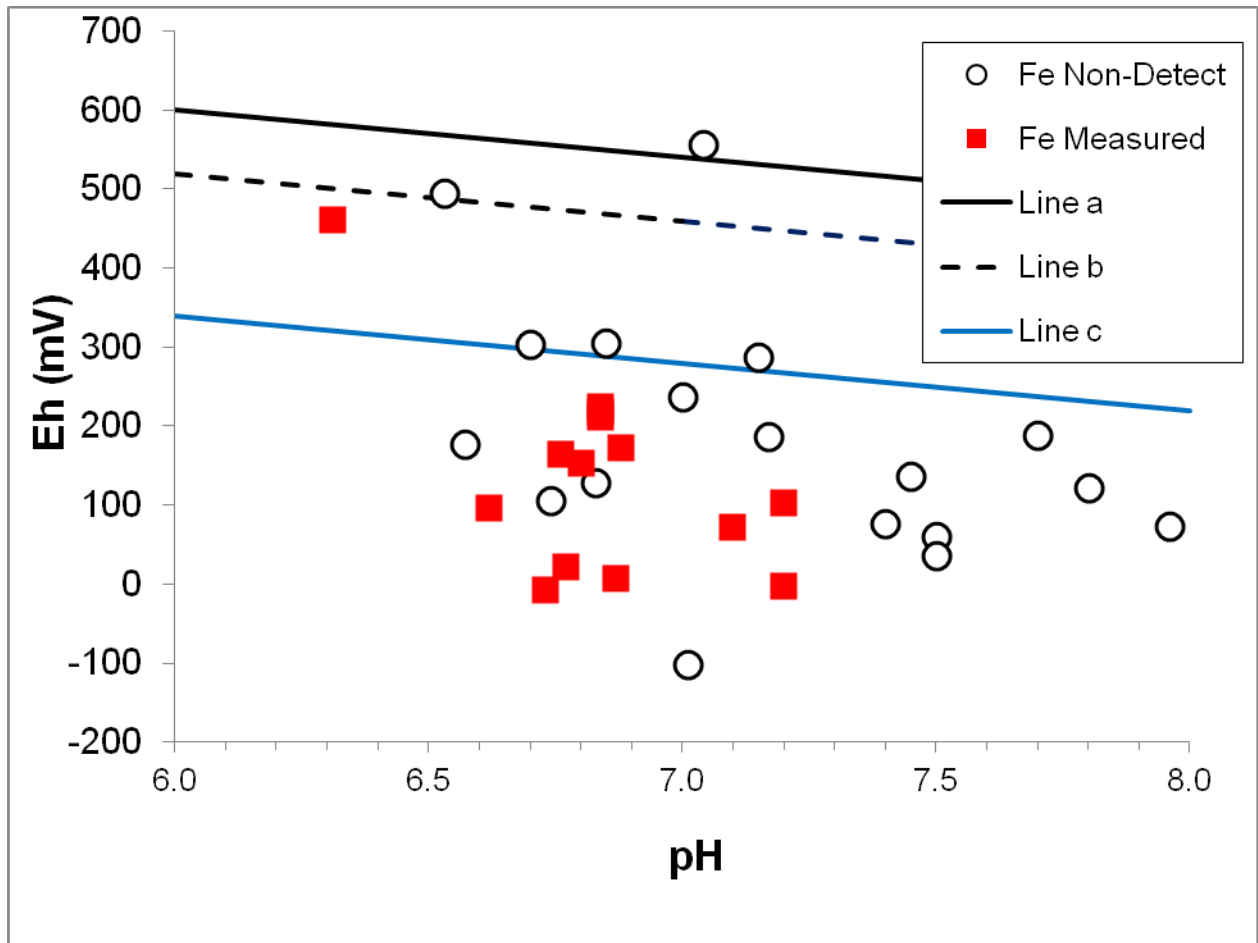


Figure 2.10 Data from Quarterly sampling of MW-2 and MW-3 quarterly in 2014 showing field-measured pH and the field-measured ORP (oxidation-reduction potential), which was converted to Eh. See text for analysis of data.

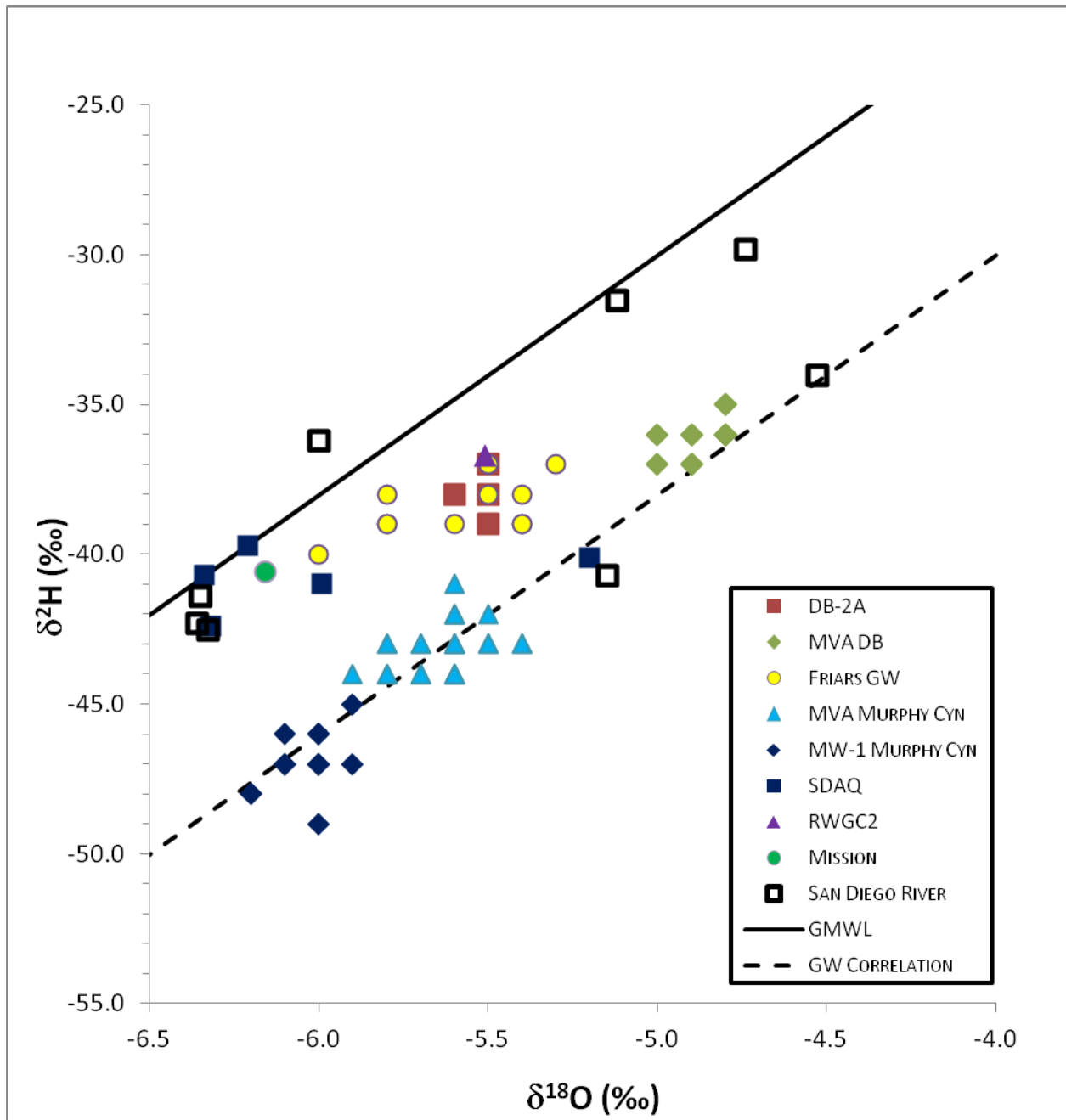


Figure 2.11 Stable water isotopes in the Lower San Diego River Valley. The groundwater data from City monitoring wells (DB-2A, MVA at DB, Friars GW, MVA Qualcomm and MW-1) are from July and October 2014. The USGS SDAQ data are from 2010, while the USGS data from the River Walk Golf Course (RWGC2) and that from the Mission wells are from 2005. *Notes: The Global Meteoric Water Line is the trend of average global atmospheric precipitation (“meteoric water”) values, while the ‘GW Correlation’ is the trendline of the City MW data. The shallow-most monitoring well of the SDAQ cluster (J7) falls on this trendline. There are many data points that do not appear because they are identical and overlap on the Figure; for example there are 9 MVA at DB site points although only 4 appear; there are 8 Friars GW samples, although just 4 appear and there are 15 MVA Qualcomm points although just 8 appear.*

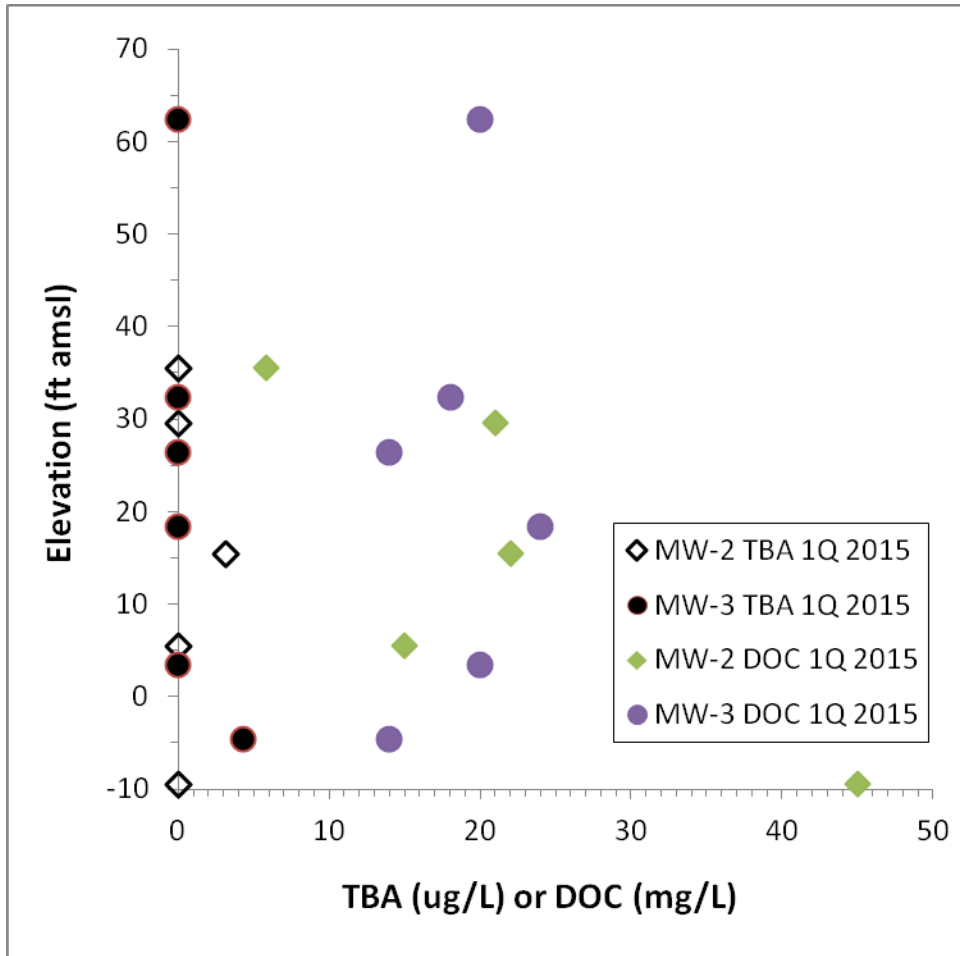


Figure 2.12 Vertical distribution of TBA and DOC, 1Q 2015

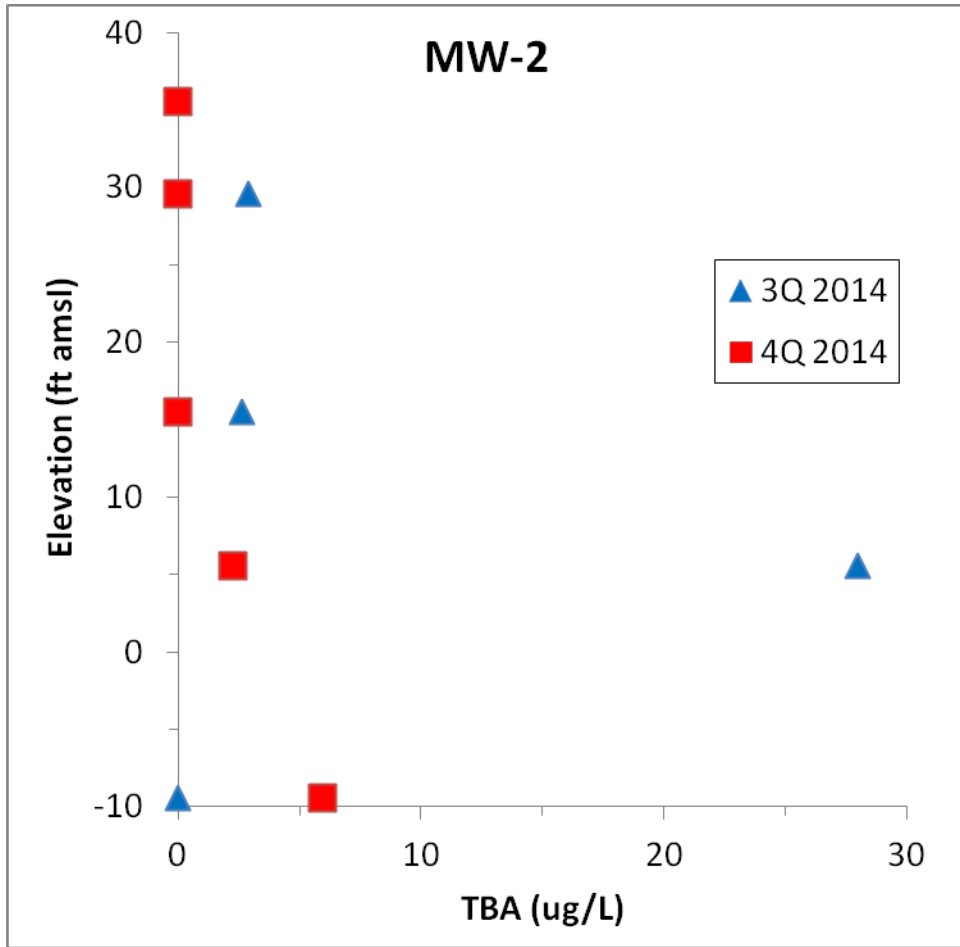
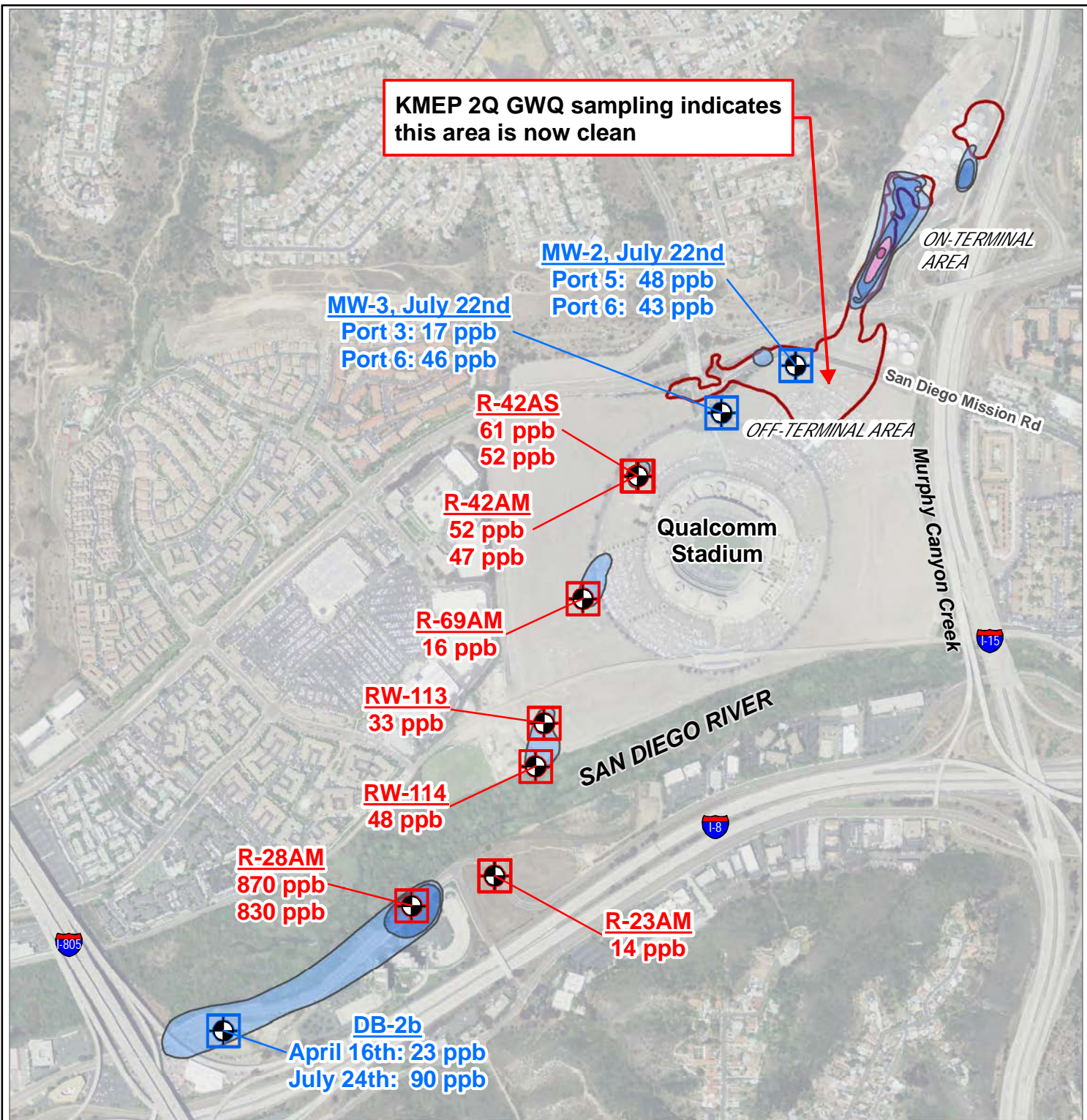









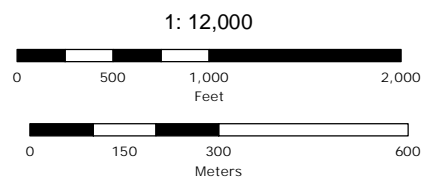
Figure 2.13 Rebound in TBA during late 2014 at MW-2. Data from City Water Quality Lab, MDL = 1 μg TBA/L



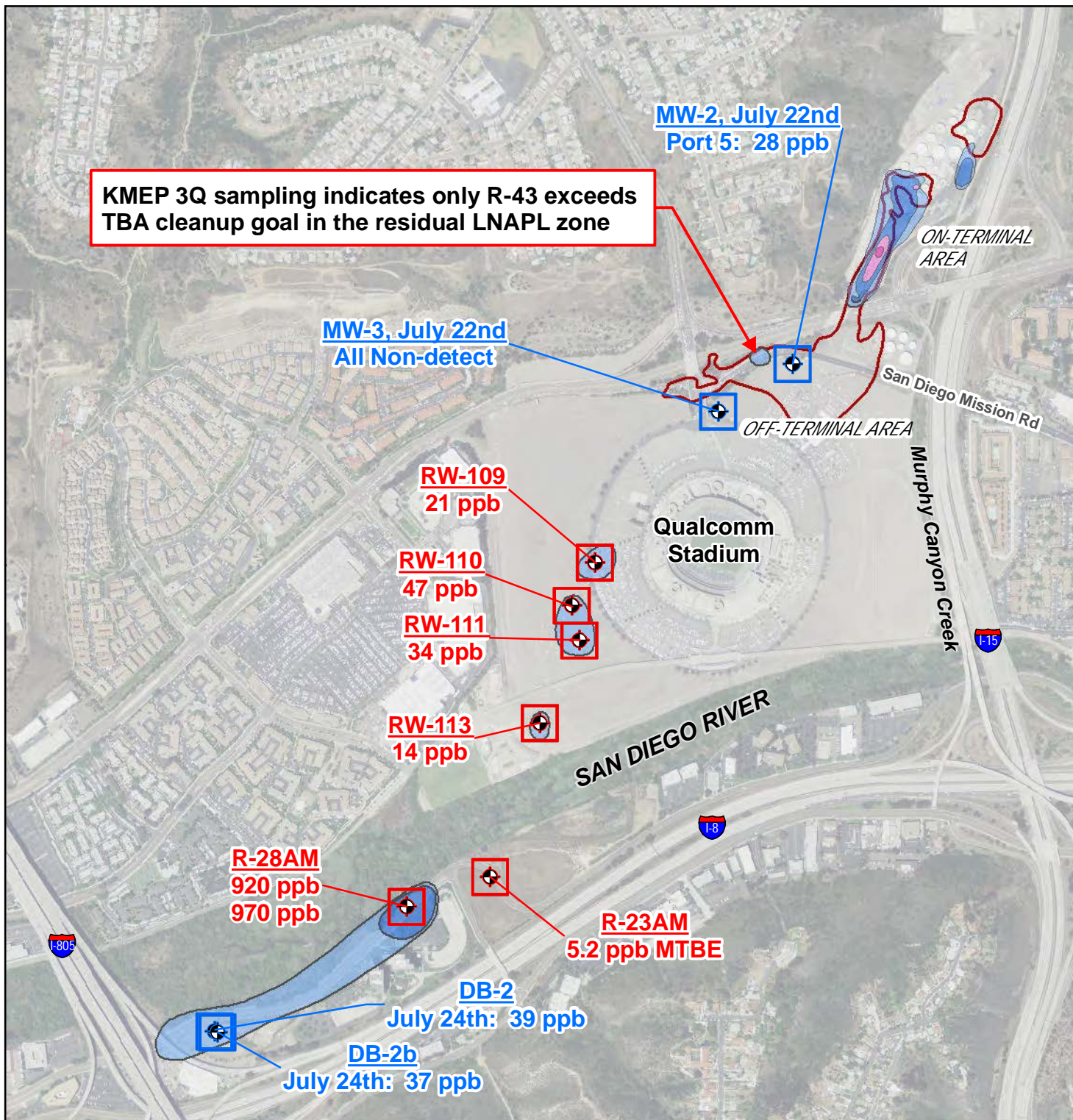
Comparison of KMEP (2Q, May 2014) and City (July 2014) TBA Contamination in the MVA, San Diego Mission Valley and Murphy Canyon

Legend

-  Monitoring Well with 2nd Quarter KMEP result (May 2014)
 -  Monitoring Well with 2nd and 3rd Quarter City Result (April & July 2014)
 -  Residual LNAPL Zone
- | TBA µg/L | |
|---|--------------|
|  | 10-100 |
|  | 100-1,000 |
|  | 1,000-10,000 |
|  | 10,000+ |



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Date: 10/17/2014	



KMEP 3Q sampling indicates only R-43 exceeds TBA cleanup goal in the residual LNAPL zone

**MW-2, July 22nd
Port 5: 28 ppb**

**MW-3, July 22nd
All Non-detect**

**RW-109
21 ppb**

**RW-110
47 ppb**

**RW-111
34 ppb**

**RW-113
14 ppb**

**R-28AM
920 ppb
970 ppb**

**R-23AM
5.2 ppb MTBE**








**DB-2
July 24th: 39 ppb**

**DB-2b
July 24th: 37 ppb**

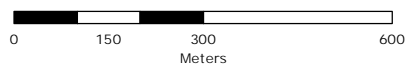
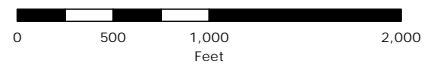


Comparison of 3Q 2014 data of KMEP (July-August) with City (July) TBA contamination in the MVA, San Diego Mission Valley and Murphy Canyon

Legend

-  Monitoring Well with 2nd and 3rd Quarter KMEP Result (July-August 2014)
 -  Monitoring Well with 2nd and 3rd Quarter City Result (July 2014)
 -  Residual LNAPL Zone
- | TBA µg/L | |
|---|--------------|
|  | 10-100 |
|  | 100-1,000 |
|  | 1,000-10,000 |
|  | 10,000+ |

1: 12,000



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Mission Valley Terminal Remediation

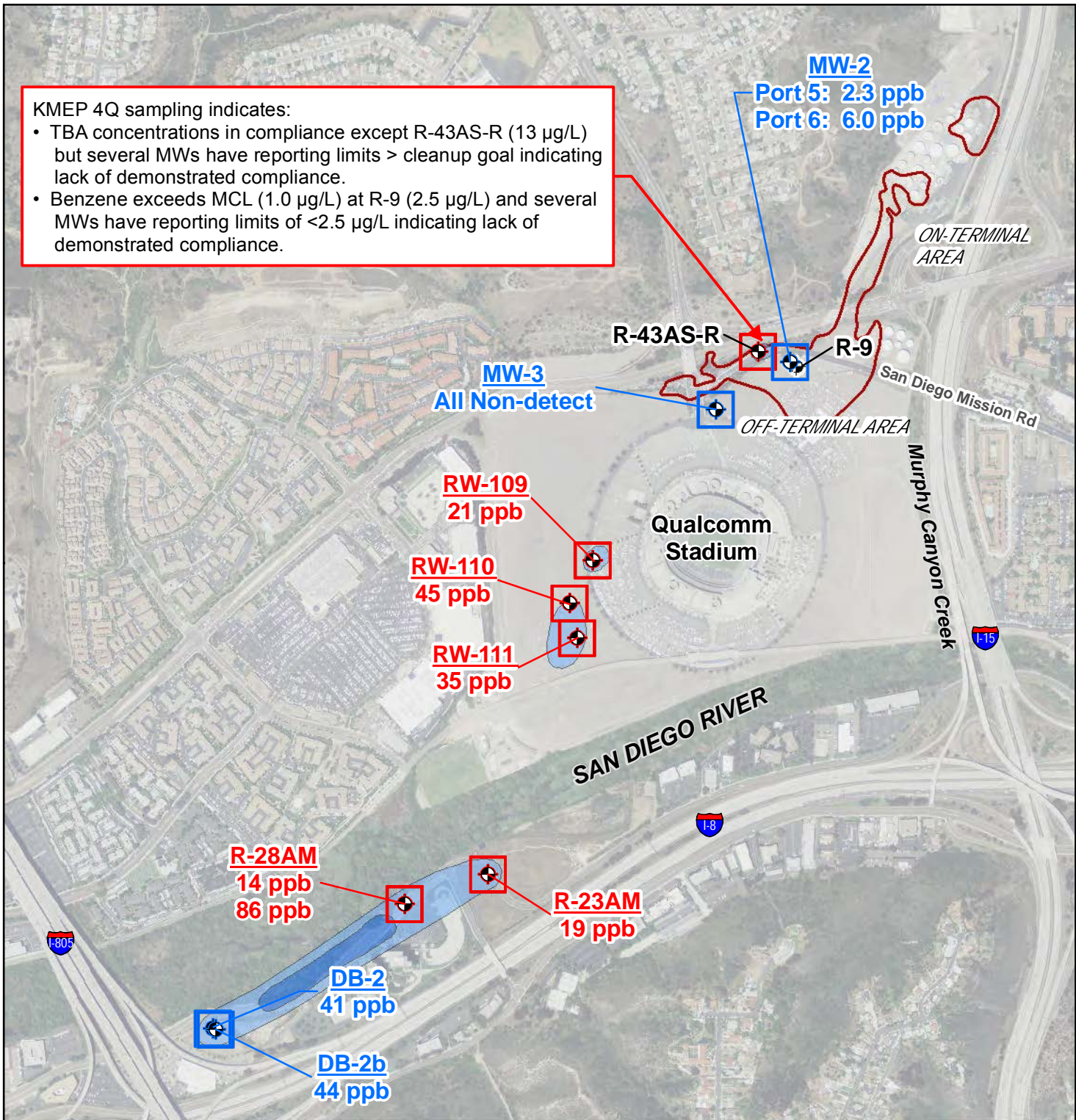
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Date: 2/19/2015

**Figure
2.15**






KMEP 4Q sampling indicates:

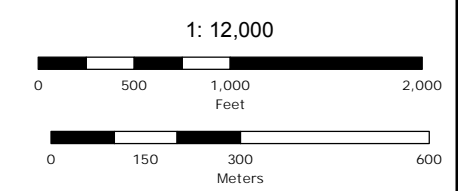
- TBA concentrations in compliance except R-43AS-R (13 µg/L) but several MWs have reporting limits > cleanup goal indicating lack of demonstrated compliance.
- Benzene exceeds MCL (1.0 µg/L) at R-9 (2.5 µg/L) and several MWs have reporting limits of <2.5 µg/L indicating lack of demonstrated compliance.



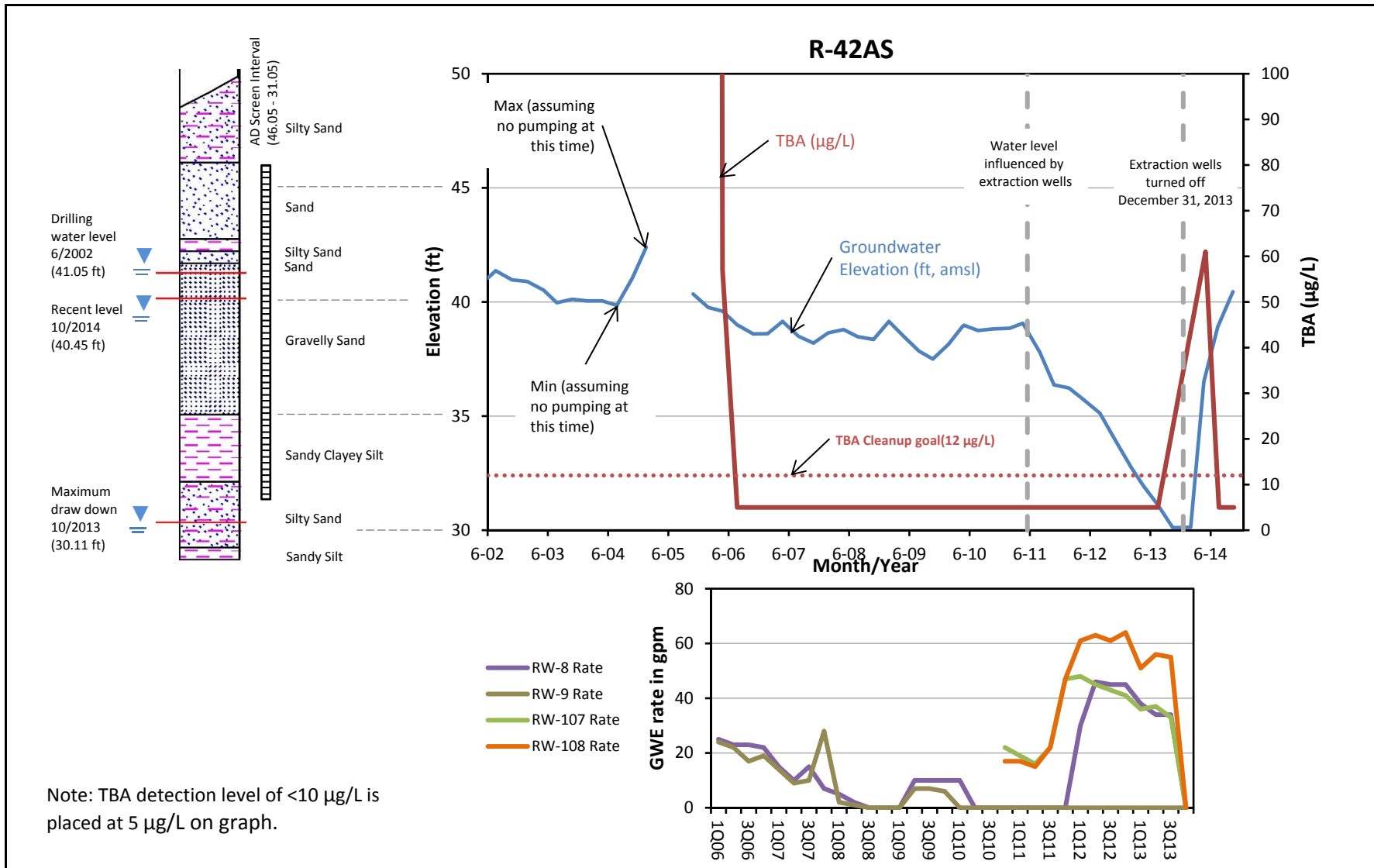
Comparison of 4Q 2014 data of KMEP (October-November) with City (October 2014) TBA contamination in the MVA, San Diego Mission Valley and Murphy Canyon

Legend

-  Monitoring Well with 4th Quarter KMEP Result (October-November 2014)
 -  Monitoring Well with 4th Quarter City Result (October 2014)
 -  Residual LNAPL Zone
- TBA µg/L**
-  10-100
 -  100-1,000



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PROJECT Mission Valley Terminal Remediation	
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Date: 3/2/2015	



R-42AS water level elevation time series (to 4Q 2014)
with lithologic column,
Mission Valley Terminal, San Diego, CA

Project: Mission Valley Terminal Remediation



Source: Water Levels - Geotracker, Lithology - LFR, 2002

PROJECT No. 07-204-1

Date: 3/9/2015

Figure 2.17

3 GROUNDWATER QUALITY IN THE FUGITIVE TBA/TDS PLUME

3.1 Monitoring Wells in the MTBE/TBA plume

In 2011 the City of San Diego installed a cluster of monitoring wells shown in Figure 3.1 at the 'DB site' along El Camino Del Rio North. The outline of the TBA/TDS plume is shown in red in Figure 3.2.

The purpose of these wells was to provide a preliminary assessment of the MVA in this area for future water-supply development, which is currently being undertaken by Gillingham Water Planning and Engineering Inc. The construction details of these wells are presented in Appendix A, which was taken from URS (2011). Figure 3.2 defines the position of the new City monitoring wells with respect to the former wells of the City's pre-WWII municipal wellfield.

- DB-1 is a five-inch diameter well screened in the MVA from 36 – 56 ft bgs; total depth of the borehole was 118.5 ft. The bottom 20 ft of the well is comprised of well-sorted medium and coarse sands with an interlayer of silty gravel with sand. DB-1 has exhibited trace contamination by MTBE but not TBA during early 2014.
- DB-2 is also a five-inch diameter well screened from 45 -- 70 ft bgs in the basal gravel aquifer; total depth of the borehole was 70 ft. The lower eight feet of the screened interval is in contact with "sandy gravel with abundant cobbles and coarse sand." When first sampled in May 2011 it was already contaminated with MTBE (4.2 µg/L) and TBA (11.2 µg/L). The TBA concentration in January 2015 had risen to 37.5 µg/L while MTBE was 2.4 µg/L.
- DB-2A is a shallow water-table monitoring well screened from 10 – 25 ft bgs. It exhibits high TDS and DOC concentrations and Total Coliform count. It is most likely that samples from this monitoring well are affected by seasonal infiltration of San Diego River water.
- DB-2B is a deep monitoring well screened through sandy gravel from 45 -- 70 ft bgs in the basal gravel aquifer. Similar to DB-2, which is nearby, it exhibited contamination by TBA at a concentration of 36.6 µg/L in January 2015 having increased from 21 µg/L in August 2013.

GWQ samples from these City monitoring wells – DB-1, 2, 2A and 2B – were sampled by Blaine Tech Services of San Jose CA and analyzed by two laboratories: (i) the City's Water Quality lab within the Public Utilities Department and (ii) a contract lab (in 2014 this was FGL of Santa Paula CA, in 2015 it is Calscience). The City lab analyzed only for coliform bacteria and volatile organic compounds (VOCs) including TBA and MTBE. FGL analyzed for a large suite of VOCs and major inorganic solutes. Blaine conducted field electrode measurements of DO, ORP, pH, SEC and colorimetric measurements of alkalinity, DO, iron and sulfide.

The sampling events for the DB monitoring wells were conducted for the City by Blaine Tech Services on the following dates:

- 2Q2011: DB-1 on 18 April 2011 and DB-2 on 26 May & 9 June 2011
- 2Q2013: DB-2A and DB-2B on 23 May 2013 (except TBA sampled on 2 August)

- 1Q2014: 10 February 2014
- 2Q2014: 16 April 2014
- 3Q2014: 24 July 2014
- 4Q2014: 23 October 2014
- 1Q2015: 28 January 2015

Figure 3.3a depicts the groundwater quality in the fugitive plume in July 2014. Measurements of TBA have continued to rise in DB-2 and DB-2b throughout the third quarter and both were in excess of 40 µg/L in October 2014 (Figure 3.3b) and approximately 37 µg/L in January 2015. It is anticipated that the concentrations will continue to fluctuate over the next five years but generally increase to a peak concentration over 100 µg/L.

Two monitoring well clusters installed by KMEP on the south side of the San Diego River have also indicated the presence of this fugitive MTBE/TBA plume: R-28 and R-23 (see Figure 3.1). Monitoring well R-28AM, which was installed in February 2001, has a continuing record of MTBE/TBA contamination beginning in 2004. The cross section in Figure 3.4 shows that there is a zone of 19 ft of sandy aquifer materials between the bottom of R-28AS and the top of R-28AM that is not sampled by any monitoring well and that is probably contaminated.

The R-23 monitoring well nest appears to be adjacent to the main MTBE/TBA plume. Only R-23AM has a record of continuing contamination, mainly by MTBE at concentrations below 10 µg/L although a sample collected in October 2014 was measured at 19 µg/L TBA. R-23AS appears to be influenced by periods of infiltration from the San Diego River that cause pronounced variations in specific electrical conductance (SEC).

3.2 Groundwater Quality in the Fugitive TBA/TDS Plume at R-28

The MTBE/TBA plume shown in Figure 3.3 was beyond the hydraulic capture zone of the RW-series wells and thus is well described as 'fugitive'. In July 2007, LFR (2007a) issued its report Evaluation of Natural Attenuation of MTBE and TBA in Off-Terminal Groundwater, in which it clearly indicated in Figures 4 and 25 of that report that the origin of the MTBE/TBA plume at R-28AM was the MVT. LFR's Figure 25 in fact indicated that in November 2002 the MTBE plume, which subsequently biodegraded to TBA, had progressed well beyond R-28AS towards the DB monitoring wells.

Figure 3.5 shows the early time series in MTBE, TBA, DO and methane (CH₄) before sampling began in 2005 according to the protocol of Monitored Natural Attenuation (MNA). Figure 3.5 clearly demonstrates the disappearance of DO in 2003 and the on-set of methanogenesis in the fugitive plume in 2004, which is accompanied by the transformation of MTBE to TBA.

MNA sampling prescribes a set of analytes measured in both the lab and the field that are better suited to understanding the fate of MTBE and TBA in this fugitive plume. Figure 3.6 shows the time series for MTBE, TBA and SEC after 2005. The concentration spikes shown likely reflect the movement of the TBA plume vertically within the MVA. Since 2011 the TBA plume has been more frequently observed in R-28AM than in R-28AS; thus it appears that the plume is descending in the

MVA and is again sampled at somewhat greater depth at DB-2B, as shown in Figure 3.4. R-28 is only 1,500 ft up-gradient of DB-2.

It is particularly noteworthy that the SEC of the plume has steadily risen since 2008. SEC, which is measured in $\mu\text{S}/\text{cm}$, may be used to estimate the Total Dissolved Solids (TDS) in mg/L by use of the USGS' linear regression equation for the regional hydrogeologic province: $\text{TDS} = 0.628 \times \text{SEC} - 15.34$ (Wright and Belitz, 2011, Appendix E). Considering Figure 3.6, the increase of $\sim 900 \mu\text{S}/\text{cm}$ ($3600\text{--}2700 \mu\text{S}/\text{cm}$) or $\sim 550 \text{ mg/L}$ in TDS units over the period 2008-2014 occurs following the arrival of MTBE in 2004. In fact, the TDS concentration likely began to increase at the same time as MTBE arrived and was biodegraded to TBA in 2004; the original or background TDS is that for 18Q3 or 1100 mg/L (see Table 1.2). The current (October 2014) TDS at R-28AM is $\sim 2300 \text{ mg/L}$.

This additional TDS load is due to (a) biodegradation of MTBE to TBA and (b) the induced flow of brackish groundwater into the MVA caused by the GWE wells in the up-gradient MVA (see Geofirma and INTERA, 2012, section 3.8 for a discussion). This additional TDS load will have to be treated and removed prior to its distribution to consumers in San Diego because the TDS concentrations in the MVA on the south side of the San Diego River at R-28 and DB-2 are well in excess of the recommended concentration of 500 mg/L for California drinking water shown in Table 3.1.

Table 3.1 Secondary maximum contaminant levels (CDPH, June 21, 2012, p. 134, California Regulations Related to Drinking Water)

<i>Constituent Limit</i>	<i>Recommended</i>	<i>Upper</i>	<i>Short Term</i>
TDS, mg/L	500	1,000	1,500
SEC, $\mu\text{S}/\text{cm}$	900	1,600	2,200
Chloride, mg/L	250	500	600
Sulfate, mg/L	250	500	600

3.3 Groundwater Quality in the Fugitive TBA/TDS Plume at the DB-2 Site

Analytical data for the DB-2 site began with the installation of the monitoring wells in 2011. Samples collected in May and June of that year indicated a measured TDS concentration of 1,640 mg/L and concentrations of TBA ($11.2 \mu\text{g}/\text{L}$) and MTBE ($4.21 \mu\text{g}/\text{L}$), i.e., within the groundwater cleanup levels. Thus the MVA at the DB-2 Site was already contaminated by the fugitive plume when the DB wells were installed. By August 2013 the TBA concentration at monitoring well DB-2B had risen to $21 \mu\text{g}/\text{L}$ and reached $\sim 37 \mu\text{g}/\text{L}$ by January 2015.

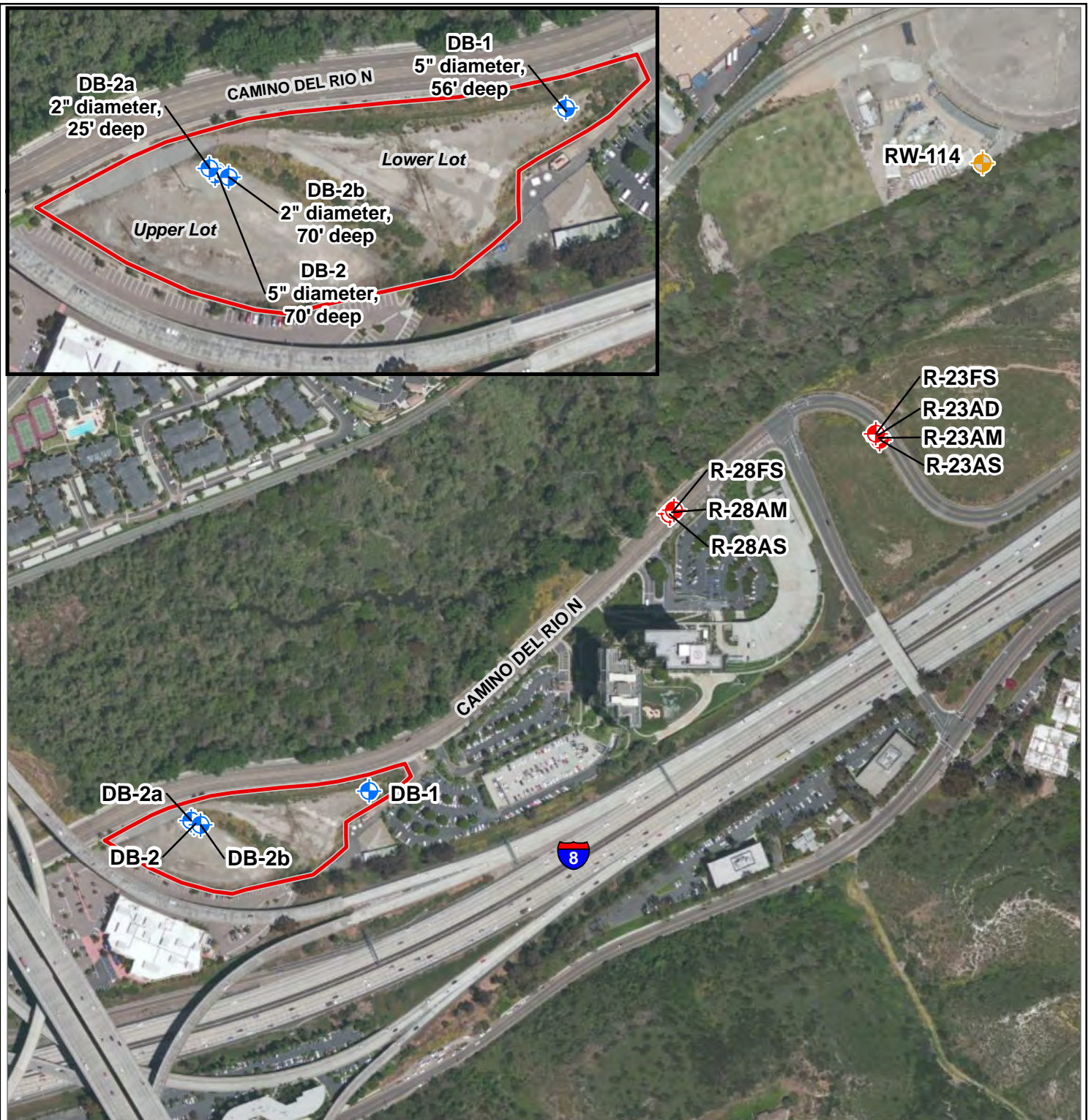
Quarterly sampling at the DB site began in 2014 with samples collected in February, April, July and October and again in January 2015. Figure 3.7 shows the increase in both SEC and TBA at DB-2B since August 2013. These increases coincide with considerable variability in concentrations of Fe, Mn and Cl. The current TDS at DB-2B is 1560 mg/L (1Q2015), or $\Delta = 460 \text{ mg/L}$ higher than that measured by DWR(1959) at 18Q3 (see Table 1.2).

The TDS at R-28AM is $\sim 2300 \text{ mg/L}$ (see Fig 3.6) or $\Delta = \sim 1200 \text{ mg/L}$ over 18Q3, and it is certain that both TDS and TBA will increase at the DB site over the next 5 years. Assuming a TBA/TDS plume

velocity of 1 ft/day in the direction of the DB site, there is approximately a four-year travel time from R-28 to DB-2B. Consequently, referring to Figure 3.6, higher TBA and TDS concentrations than are shown in Figure 3.7 are to be expected at the DB-2 site for the next 5 years.





3.4 Summary

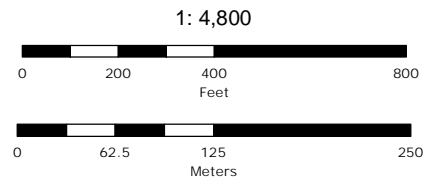
- 1) The leading edge of the fugitive TBA/TDS plume is monitored at the City monitoring well DB-2B. TBA concentrations at DB-2B rose from 21 $\mu\text{g/L}$ in August 2013 to 37 $\mu\text{g/L}$ in January 2015.
- 2) After three years of sampling, the GWQ at the DB site has a TDS concentration over 460 mg/L greater than the background (baseline) analysis for this site conducted in 1955 by DWR (i.e., 1100 mg/L).
- 3) 1500 ft up-gradient of the DB site, the KMEP monitoring well R-28AM exhibits a difference between current (~ 2300 mg/L) and the background TDS of $\sim 1,100$ mg/L. This even higher TDS concentration is expected to reach DB-2 during the next 5 years.
- 4) The proposed Mission Valley Groundwater Desalter Project (City of San Diego, 2004), which was to have been commissioned in 2010 at the DB site on El Camino del Rio North Ave and is presently in the preliminary design stage, will require treatment technology to remove TBA concentrations ~ 100 $\mu\text{g/L}$ and TDS $\sim 2,000$ mg/L until the fugitive TBA/TDS plume is removed from the MVA.



Location of DB monitoring wells,
Mission Valley Aquifer

Legend

-  KMEP Monitoring Well
-  KMEP GWE Well
-  City Monitoring Well
-  Project Site
3025 Camino Del Rio North
APN 43323036



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0A







Date: 1/17/2015

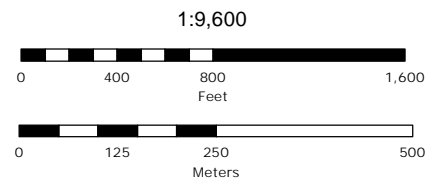
Figure
3.1



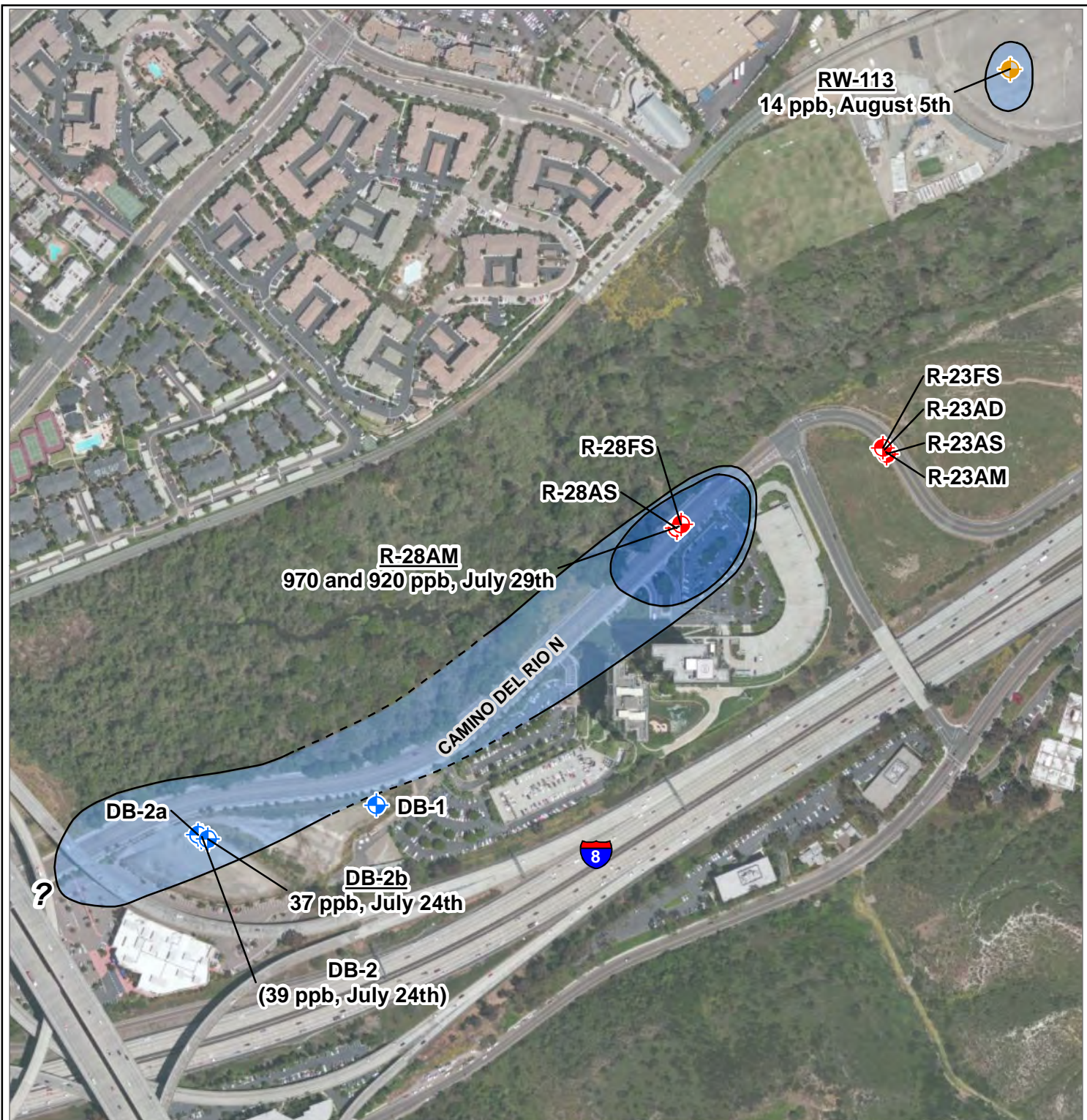
Location of historic water-supply wells and the recent DB monitoring wells, Mission Valley Aquifer

Legend

-  California Department of Water Resources Well (1965)
-  US Geological Survey Aquaculture Well
-  City of San Diego Monitoring Well (2011)
-  City of San Diego Production Well (1916)
-  10 ppb TBA Isopleth, April/May 2012 data
-  10 ppb TBA Isopleth, winter 2013-2014








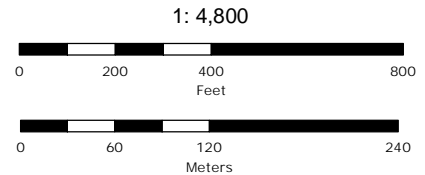
PROJECT No. 07-204-1	
PROJECT Mission Valley Terminal Remediation	
DESIGN: CAD/GIS: LEB CHECK: REV: 0	Figure 3.2
Date: 11/7/2014	



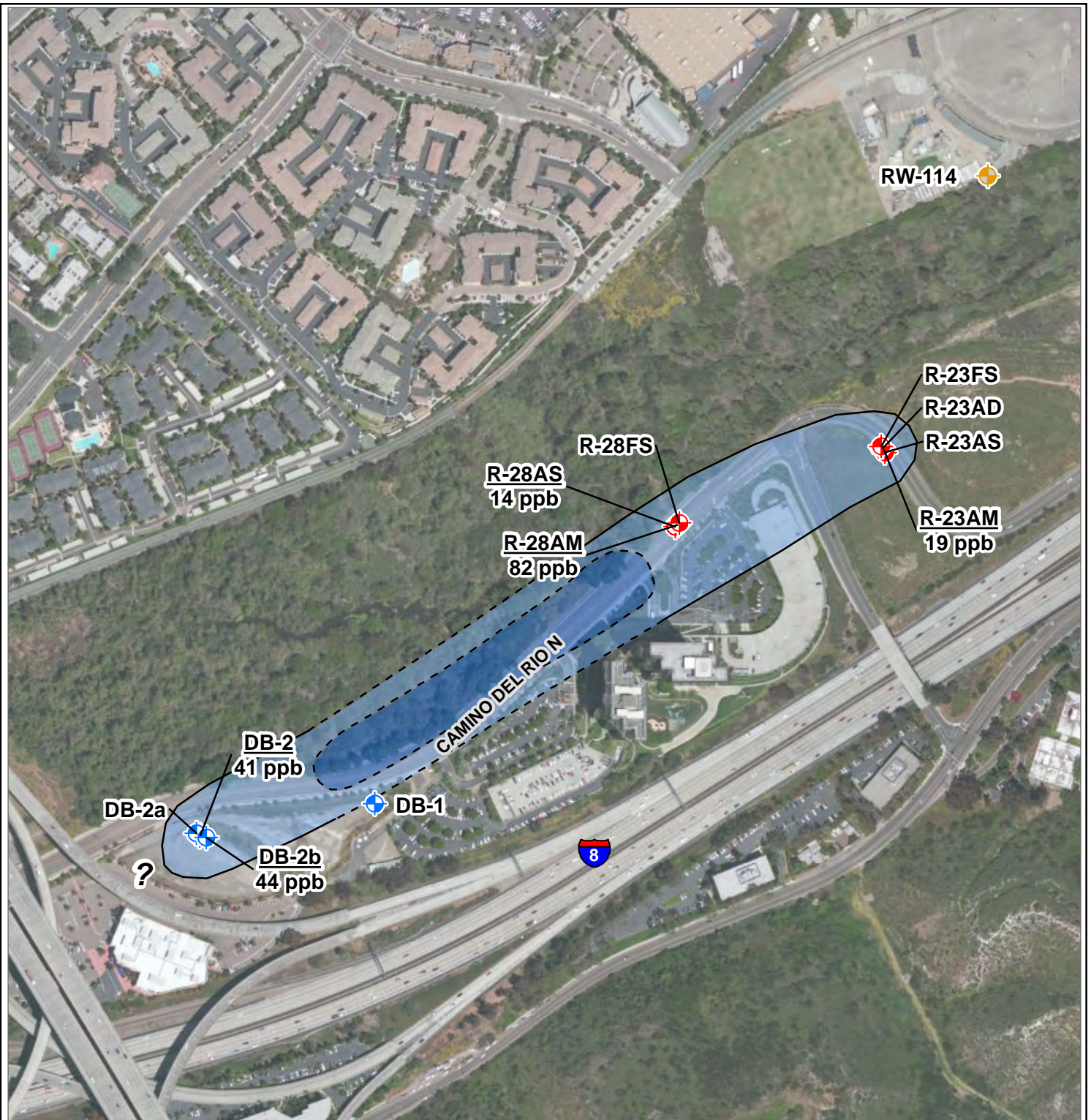
TBA Concentrations July 2014,
Mission Valley Aquifer

Legend

-  KMEP Monitoring Well
-  KMEP GWE Well
-  City Monitoring Well
-  100-1,000 µg/L TBA
-  12-100 µg/L TBA
- Dashed where inferred









PROJECT No. 07-204-1	
PROJECT Mission Valley Terminal Remediation	
DESIGN: CAD/GIS: LEB CHECK: REV: 0A	Figure 3.3a
Date: 2/25/2015	

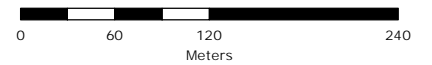
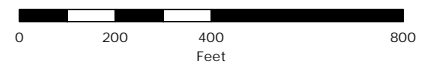


TBA concentrations, October 2014,
Mission Valley Aquifer

Legend

-  KMEP Monitoring Well
-  KMEP GWE Well
-  City Monitoring Well
-  Estimated Maximum Extent of LNAPL (1992)
-  100-1,000 $\mu\text{g/L}$ TBA
-  12-100 $\mu\text{g/L}$ TBA
- Dashed where inferred

1: 4,800



PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0A

Date: 2/25/2015

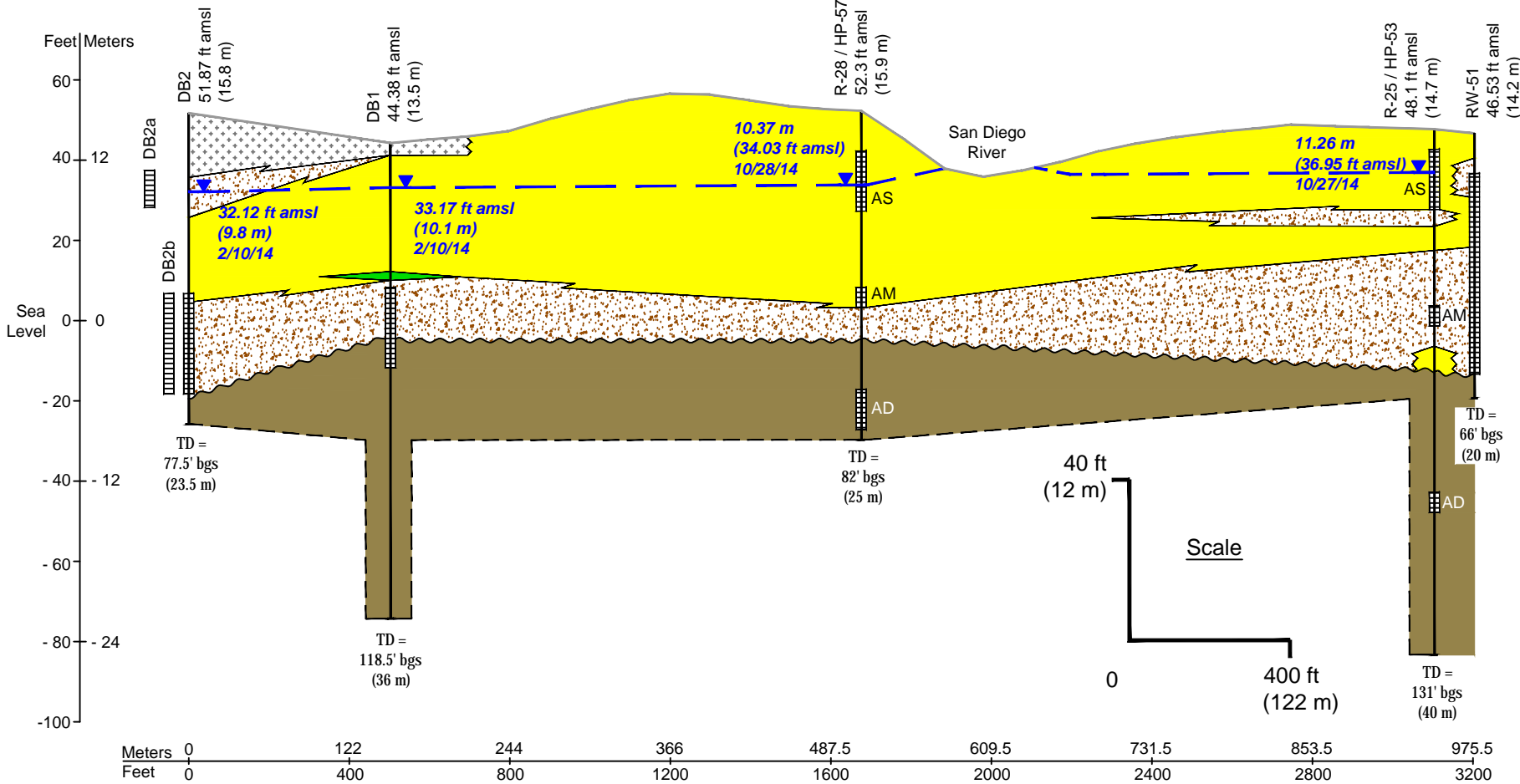
Figure
3.3b

Southwest

Northeast

G

G'



- Sandy Clay, Gravelly Clay, & Clay (CH, CL)
- Silts (MH, ML)
- Sand (SC, SM, SP, SW)
- Gravels (GM, GW, GC, or other w/ logged gravel or cobbles)
- Friars Formation
- No Recovery or not logged (NR)
- Erosional Surface

Legend

- logged as Fill
- Screened Interval
- Ground Water Elevation
feet above mean sea level (ft amsl);
1Q 2014/4Q 2014

NOTES:
 Well/boring depths from lithologic logs , LFR/Arcadis.
 Well elevations are Top of Casing (TOC), feet above mean sea level.
 See Figure 1.6 for cross section location.

Cross Sections developed by INTERA, Inc. (R. Sengebusch), March 2014.

Schematic cross section G-G'

PROJECT No. 07-204-1	
PROJECT Mission Valley Terminal Remediation	
DESIGN: CAD/GIS: LEB CHECK: REV:	Figure 3.4
Date: 3/9/2015	

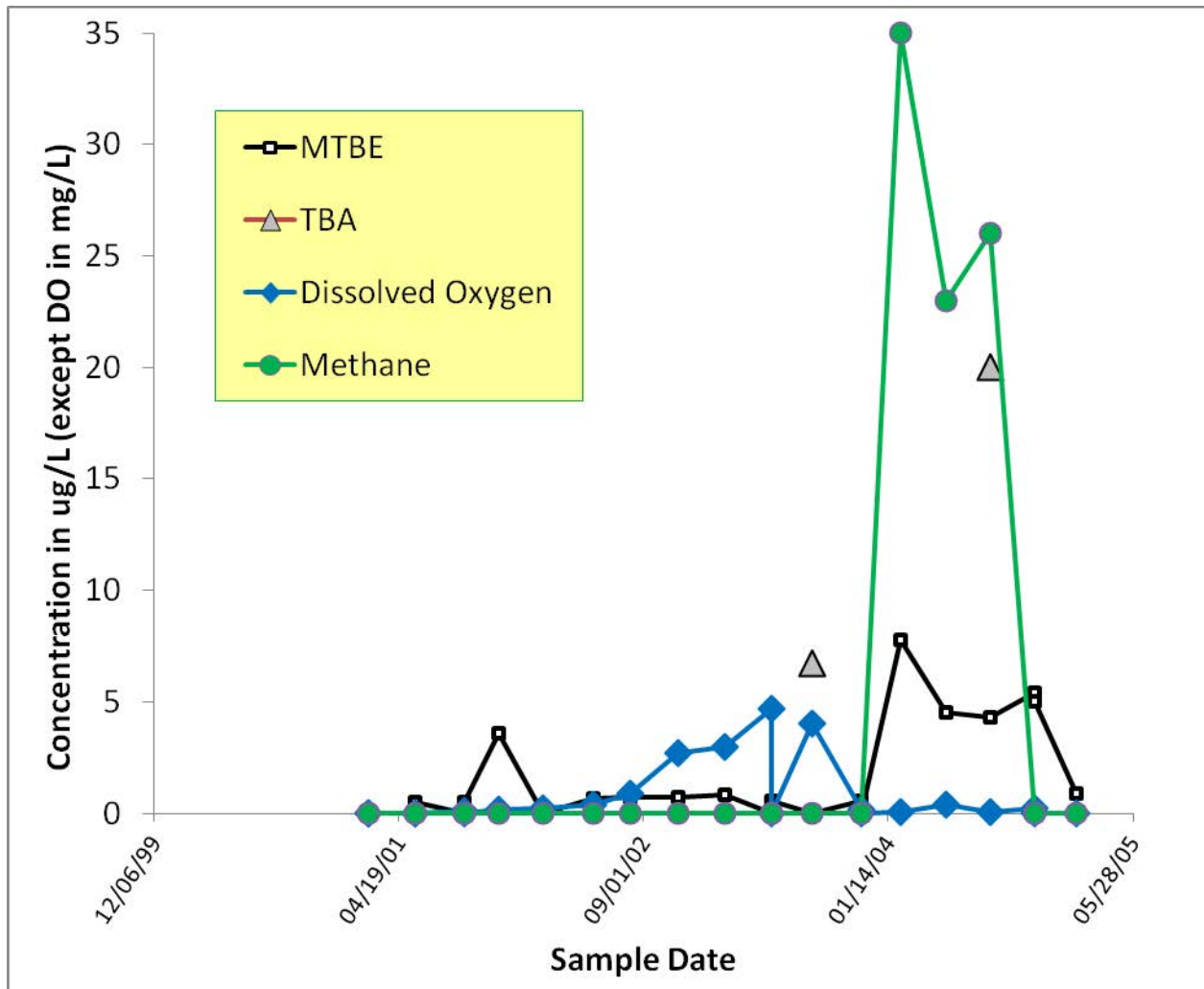


Figure 3.5: Hydrograph of R-28AM following its installation in 2001 until MNA sampling begins in 2005. Note the disappearance of DO and the onset of methanogenesis in 2004 with the arrival of higher MTBE contamination and biodegradation producing TBA.

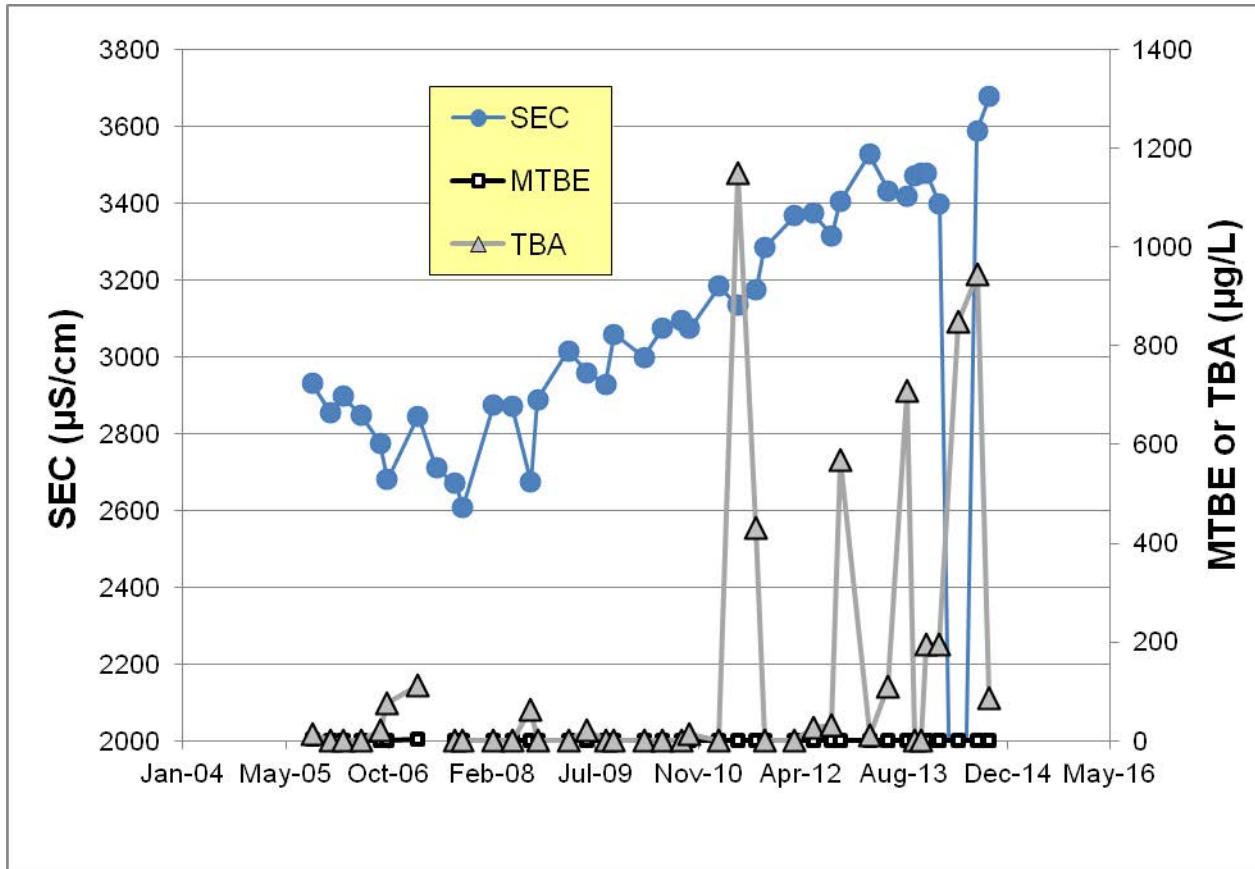


Figure 3.6: Hydrograph of Specific Electrical Conductance (SEC), MTBE and TBA at R-28AM since 2005. SEC acts as a proxy for TDS. This Figure illustrates that the arrival of a MTBE/TBA plume in 2006 occurred simultaneously with the increase in SEC and hence TDS.

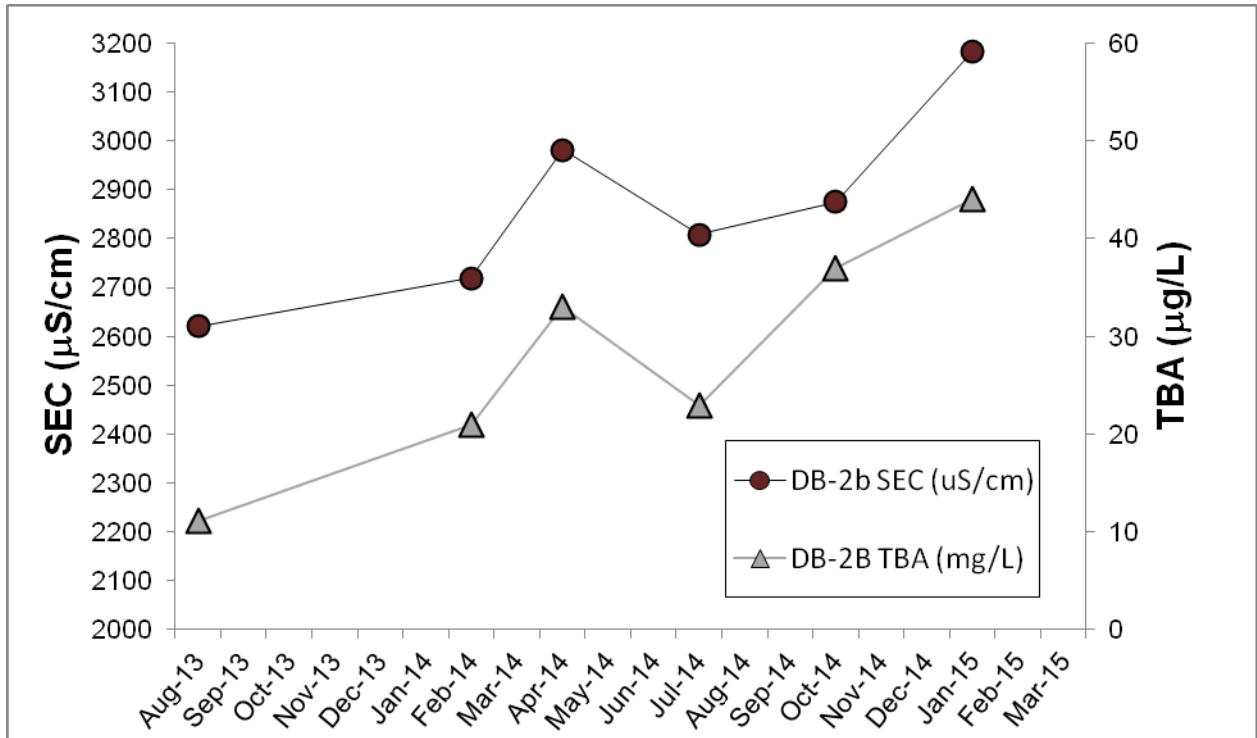


Figure 3.7 TBA and SEC trends at DB-2B, August 2013 to 1Q2015

4 WATER-TABLE RECOVERY

Figure 1.4 illustrates how a rising and falling water table – reflecting seasonal hydrologic recharge-discharge events – causes LNAPL to be smeared over a thickness of alluvial soil that reflects the period during which LNAPL was present in the soil zone. Consequently, as the RWQCB’s advisors (Johnson and Eggers, 2005, p.13) have stated, there must be a full recovery of the water table before it is possible to determine if the cleanup criteria of Table 1.1 have been fulfilled.

According to the water-level measurements conducted in October-November 2014 (4Q) for KMEP (Arcadis, 2015b), the elevation of the water table remains well below pre-groundwater extraction levels. Figures 4.1 and 4.2 are hydrographs illustrating the groundwater elevation in ft amsl (above mean sea level). These figures – similar to R-42AS in Figure 2.17 – indicate the pre-GWE elevations and the post-GWE groundwater elevations. The GWE system was installed incrementally from 2003 to 2012 (see Section 2.2), thus different monitoring wells indicate different inflection points that identify when water-table drawdown began to affect them.

R-7 is located approximately 2,600 feet north of the stadium parking lot in Murphy Canyon, near the north end of the MVT fuel storage facility. Based on inspection of the hydrograph, this well was not influenced by GWE operations. This hydrograph shows a consistent water-level elevation at approximately 69-70 feet amsl from approximately 2003 to 2014 although there was a temporary decrease between 2007 and 2009 but the level returned to 69 feet in 2010. There is no consistent decline during the years of GWE operations or rebound at the end of the pumping period, therefore the R-7 hydrograph appears to be uninfluenced by the GWE system. This hydrograph reveals no natural water-level trend in the MVA during 2003-2013 despite the continuing drought of southern California. This may be due to irrigation in Murphy Canyon north of the MVT at the Stadium Golf Center and elsewhere in the Canyon.

Consequently, no trend is assumed in any of the monitoring wells and all variations in groundwater elevation are assumed caused by seasonal patterns and GWE-induced drawdown of the water table. In the following pages, the term ‘residual drawdown’ refers to the difference in the groundwater elevation at a monitoring well measured prior to GWE operations and that measured most recently. This chapter begins with a discussion of the residual drawdown in the area surrounding monitoring well R-9, which was contaminated by LNAPL when installed by Simon Hydro-Search in 1992 and is shown in Figure 4.3. It concludes with a discussion of the residual drawdown in the MVA elsewhere. Further discussion of this topic is contained in Appendix D.

4.1 Residual Drawdown near R-9

Table 4.1 lists water levels measured by Simon Hydro-Search (1992, Figure 2) in the first Corrective Action Plan for the MVT that indicates that these monitoring wells – R-9, R-10, R-11 and R-12 – were “gauged on August 8, 1992”, which is the dry-weather season in San Diego, i.e., low water-table conditions. Furthermore, R-9 and R-10 were determined to contain substantial thicknesses of LNAPL that continued to appear in these wells until the Fourth Quarter of 2002 (see discussion by Geofirma/INTERA, 2011, p.72); total LNAPL production from R-9 was 2907 gallons. Arcadis (2011a, p.20) pointed out that R-9 was “*significantly shallower*” than the adjacent replacement well R-79AS.

Therefore these measured water-table elevations should be considered as being necessary to attain in order to determine if contamination, which was smeared to these elevations when it was present as LNAPL (or “Phase Separated Hydrocarbon”, see Figure 3, Simon Hydro-Search, 1992) has been removed. Figures 4.3 and 4.4 show the water-table elevations near R-9.

The data in Table 4.1 indicates that the water table in January 2015 in the MVA where the LNAPL first migrated off-Terminal remains approximately 4-5 feet below that in August 1992, thus LNAPL may still be retained by any fine-grained soils above the January 2015 water table as stranded contamination. As Arcadis (2015a) demonstrate in their Remedial Compliance Report (Figures 3D and 3E), the rising water table at R-9 and R-10 has only just begun to penetrate into the previously dewatered LNAPL smear zone and is already indicating a benzene concentration at R-9 in excess of the cleanup goal (1 µg/L) at an elevation of 41 ft amsl. Arcadis indicate that the smear zone exists to 48 ft amsl not the ~46 ft shown in Table 4.1. Therefore, stranded contamination at R-9 is likely to be exhibited by benzene concentrations in excess of 1 µg/L in future.

Table 4.1 Groundwater elevations and presence of LNAPLs recorded in August 1992 and May 2014 in monitoring wells adjacent to San Diego Mission Road.

Monitoring Well	R-9	R-10	R-11	R-12
Thickness of LNAPL on 6 August 1992	1.84	0.85	0.0	0.0
Groundwater elevation, 6 August, 1992	45.99 ¹	46.42 ¹	45.75	45.42
Groundwater elevation, 27 October, 2014	41.02	41.34	42.01	41.23
Residual Drawdown (ft)	-4.97	-5.08	-3.74	-4.19
Recovery²	89%	89%	92%	91%

¹groundwater elevations reported by Simon Hydro-Search that were apparently corrected for the presence of LNAPL in the monitoring well ² Recovery: 2014 GW Elev/ 1992 GW Elev

Note: These wells are in the northeast corner of the Qualcomm Stadium parking lot (from Simon Hydro-Search, 1992, Figure 2 and page 3). Elevations given in feet above mean sea level.

In their recent *Post-Dewatering Resaturation Report*, Arcadis (2013, pp. 2-3) state that:

“The water table is predicted to stabilize at about 44 feet above mean sea level (ft amsl) throughout the off-Terminal LNAPL zone with a cone of depression forming around the property boundary hydraulic containment wells. This cone will draw down the water table to about 43 ft amsl at the northeastern margin of the off-Terminal LNAPL zone...”

As Table 4.1 shows, water-level elevations are not close to 44 ft amsl according to the latest (4Q) report of water levels received by the City and the RWQCB. Furthermore, at 41.02 ft amsl on 27 January 2014, the groundwater elevation at R-9, which is “at the northeastern margin of the off-Terminal LNAPL zone”, was two feet below the simulated 43 ft elevation that was indicated only one year ago by Arcadis in their groundwater re-saturation report. Arcadis (2015a, Figure 3D) indicate that stranded contamination may exist to an elevation of 48 ft amsl.

This remaining water-table drawdown is important in that it prevents the reappearance of stranded contamination that only is detected when the water table fully returns to the “natural levels” referred to by Johnson and Eggers above; these natural levels are at least 46 ft amsl. The previous example of this stranded contamination in the MVA to be reported by Arcadis was the sudden appearance in May 2013 of ~500 µg/L TBA in R-85AS that was directly linked by Arcadis (presentation by Mr. Eric Nichols of Arcadis, University of Waterloo, August 28, 2013) to the ethanol tanker spill in April 2013.

4.2 Residual Drawdown in the MVA

Elsewhere in the MVA, the elevation difference of the water table in February 2005, i.e., prior to the total groundwater extraction (GWE) rate reaching 200 gpm, is illustrated in Table 4.2. Somewhere between 1½ to 3 ft of residual drawdown remain, and with it the potential for stranded contamination to re-enter the groundwater.

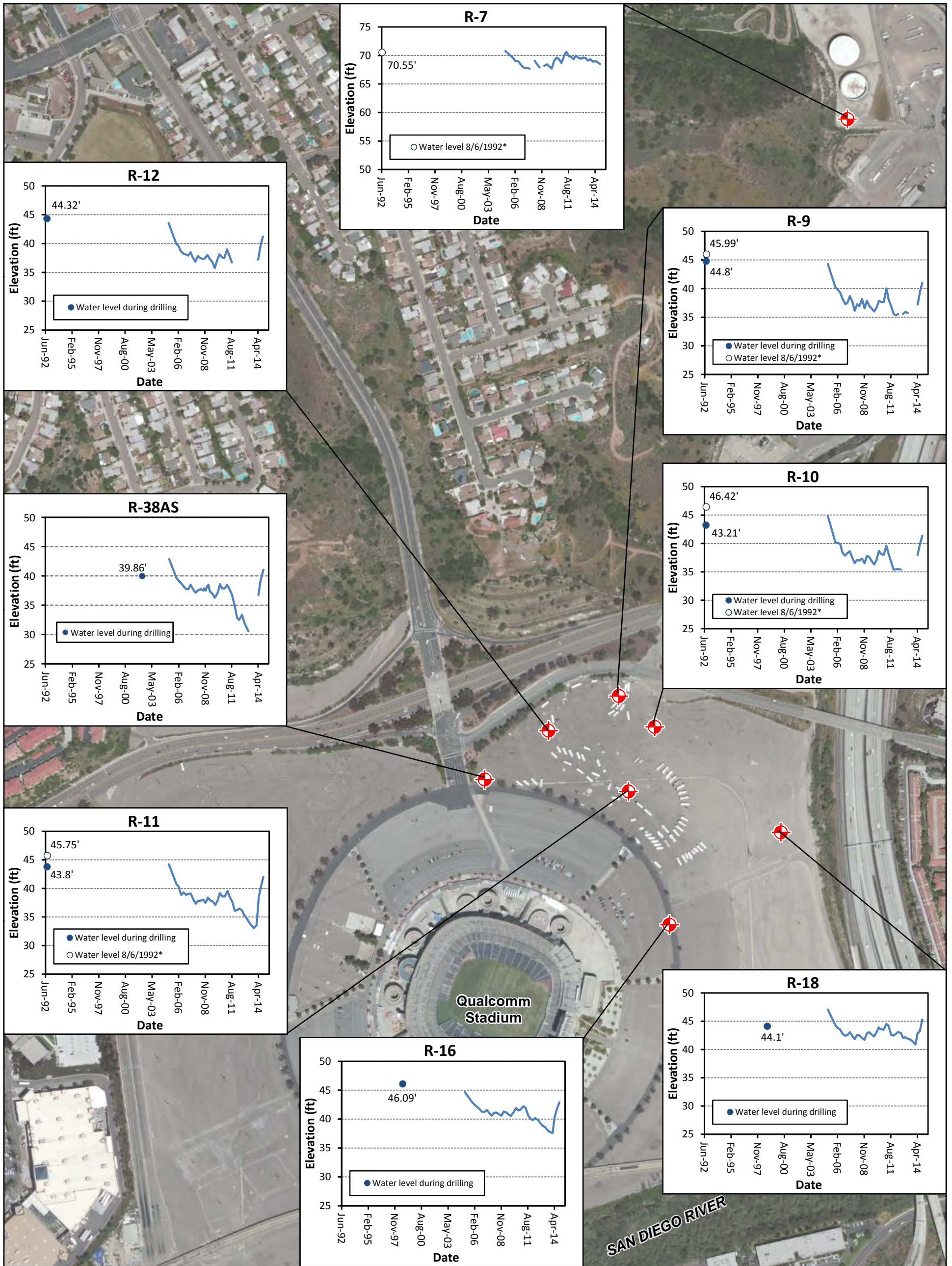
Table 4.2 Water-table elevations in the distal MTBE/TBA plume prior to GWE of 200 gpm

Monitoring Well	R-38AS	R-42AS	R-21AS	R-25AS
Groundwater elevation, February, 2005	42.91	42.43	41.85	39.76
Groundwater elevation, 27 October, 2014	41.14	40.45	38.69	36.95
Residual Drawdown (ft)	-1.77	-1.98	-3.16	-2.81
Recovery	96%	95%	92%	93%

4.3 Summary

The water table remains depressed with respect to the groundwater elevations measured prior to the commissioning of various GWE wells. For the October 2014 data, the residual drawdown of the water table is calculated to be:

- 3.7 to 5.0 ft in the water-table monitoring wells along San Diego Mission Road
- 1.8 to 3.1 ft in the water table monitoring wells in the distal MTBE/TBA plume



Hydrographs for select wells, Northern Qualcomm Stadium
San Diego River Valley and Murphy Canyon

Sources:
Continuous hydrograph data – 2005 to present, California State
Water Resources Control Board GeoTracker
(geotracker.waterboards.ca.gov) and;
LFR, First Quarter 2005 Groundwater Monitoring Report
for 2000-2005

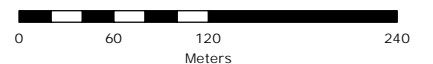
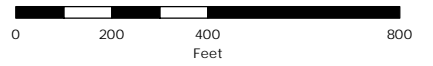
* = Water levels (if measured) by Simon Hydro-Search, Inc
for August 6, 1992

Legend



KMEP Monitoring Well with
Hydrograph

1:4,800



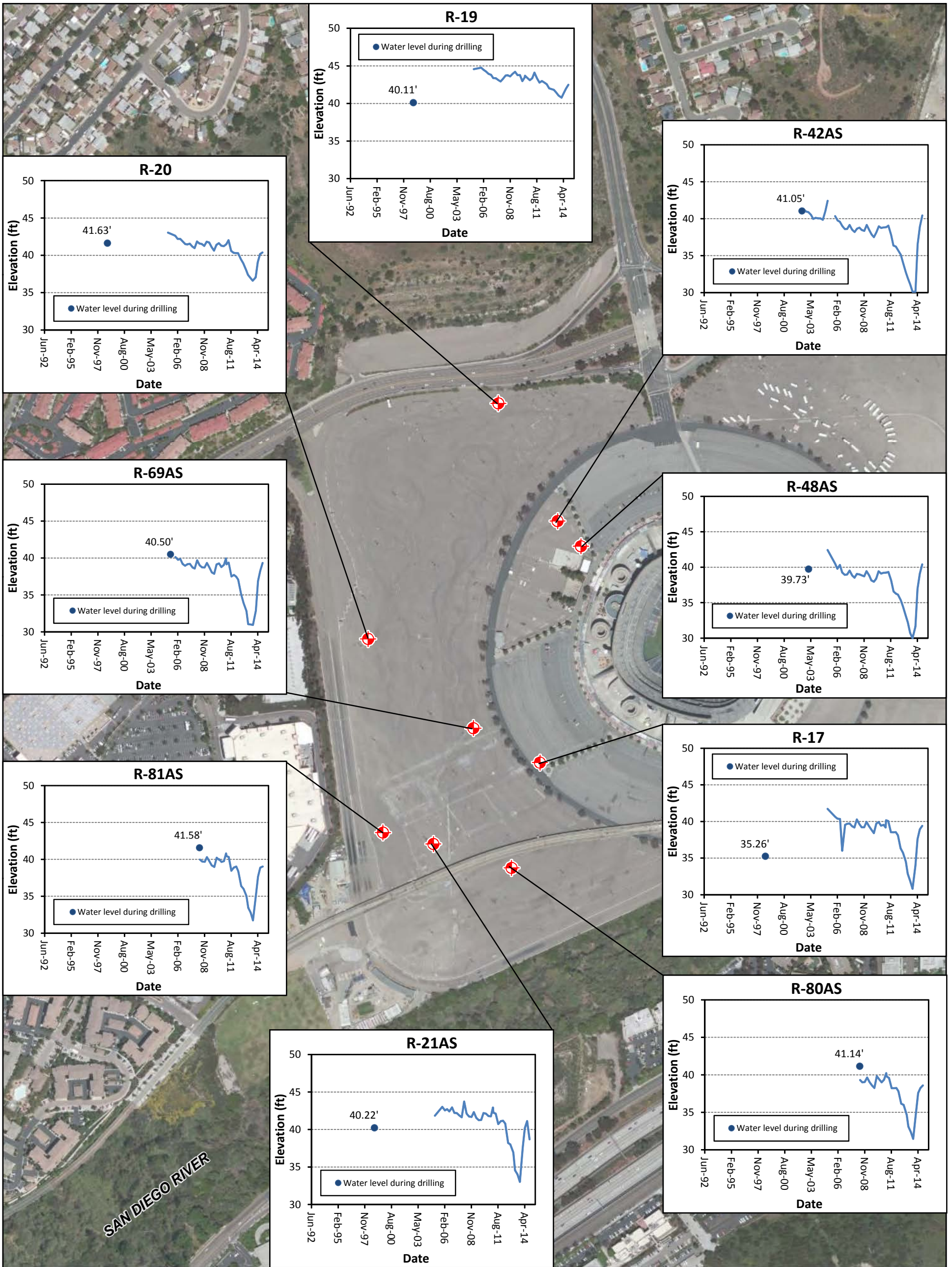
PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV:

Date: 3/3/2015

Figure
4.1



SAN DIEGO RIVER

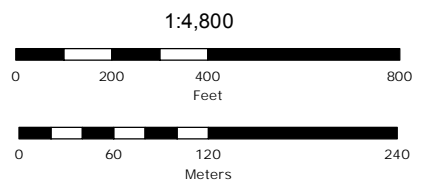


Hydrographs for select wells, Southern Qualcomm Stadium
San Diego River Valley and Murphy Canyon

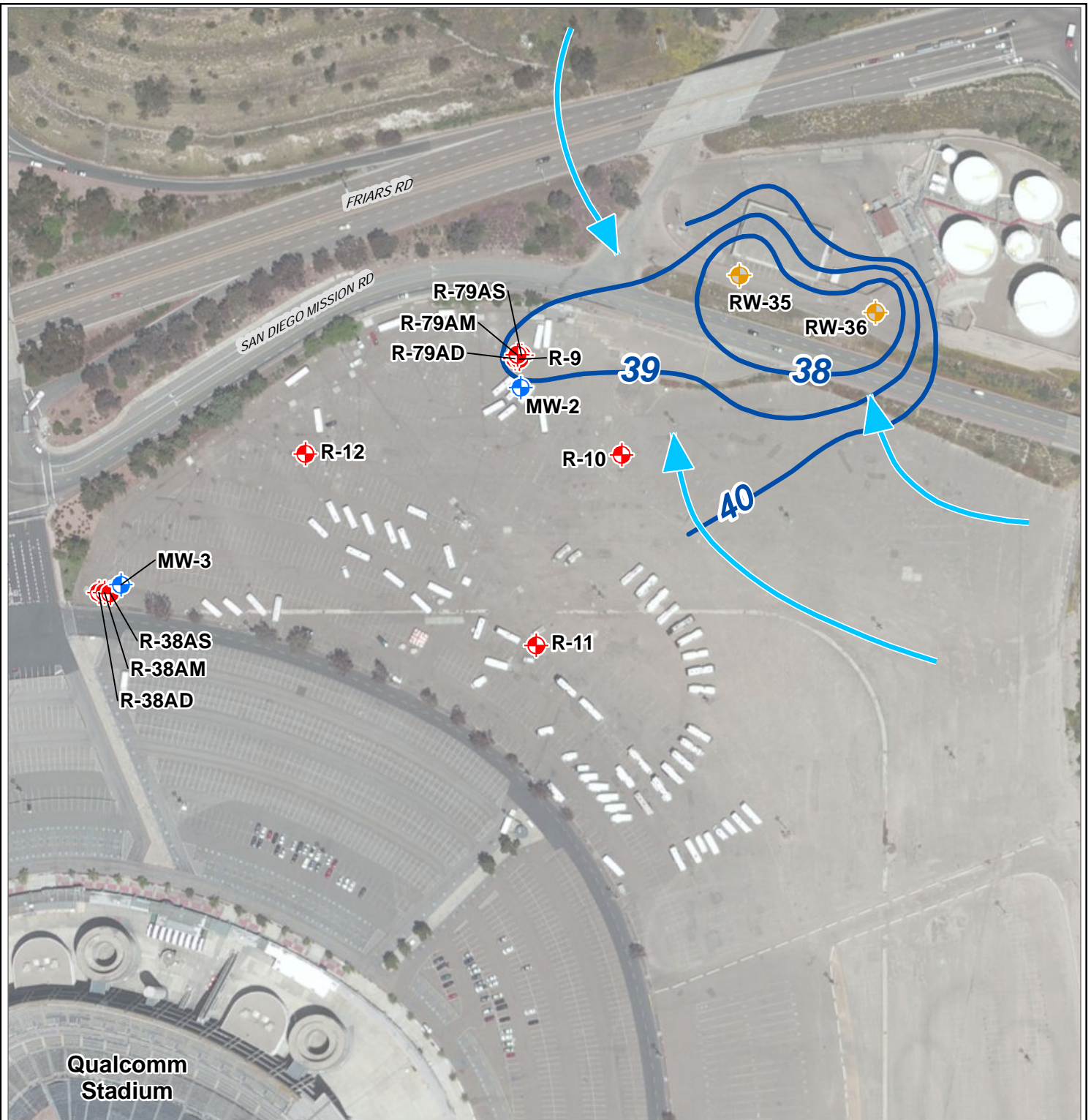
Sources:
Continuous hydrograph data – 2005 to present, California State
Water Resources Control Board GeoTracker
(geotracker.waterboards.ca.gov) and;
LFR, First Quarter 2005 Groundwater Monitoring Report
for 2000-2005

Legend

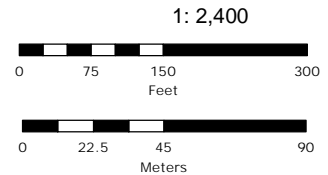
KMEP Monitoring Well
with Hydrograph



PROJECT No. 07-204-1	
PROJECT Mission Valley Terminal Remediation	
DESIGN: CAD/GIS: LEB CHECK: REV:	Figure 4.2
Date: 3/3/2015	



Residual drawdown in the former LNAPL Zone due to GWE operations at RW-35 and RW-36 (based on Arcadis, 3Q2014 gauging), Mission Valley Aquifer



Legend

- KMEP Monitoring Well
- KMEP GWE Well
- City Monitoring Well
- Water-level Contour (ft amsl)
- Groundwater Flow Direction

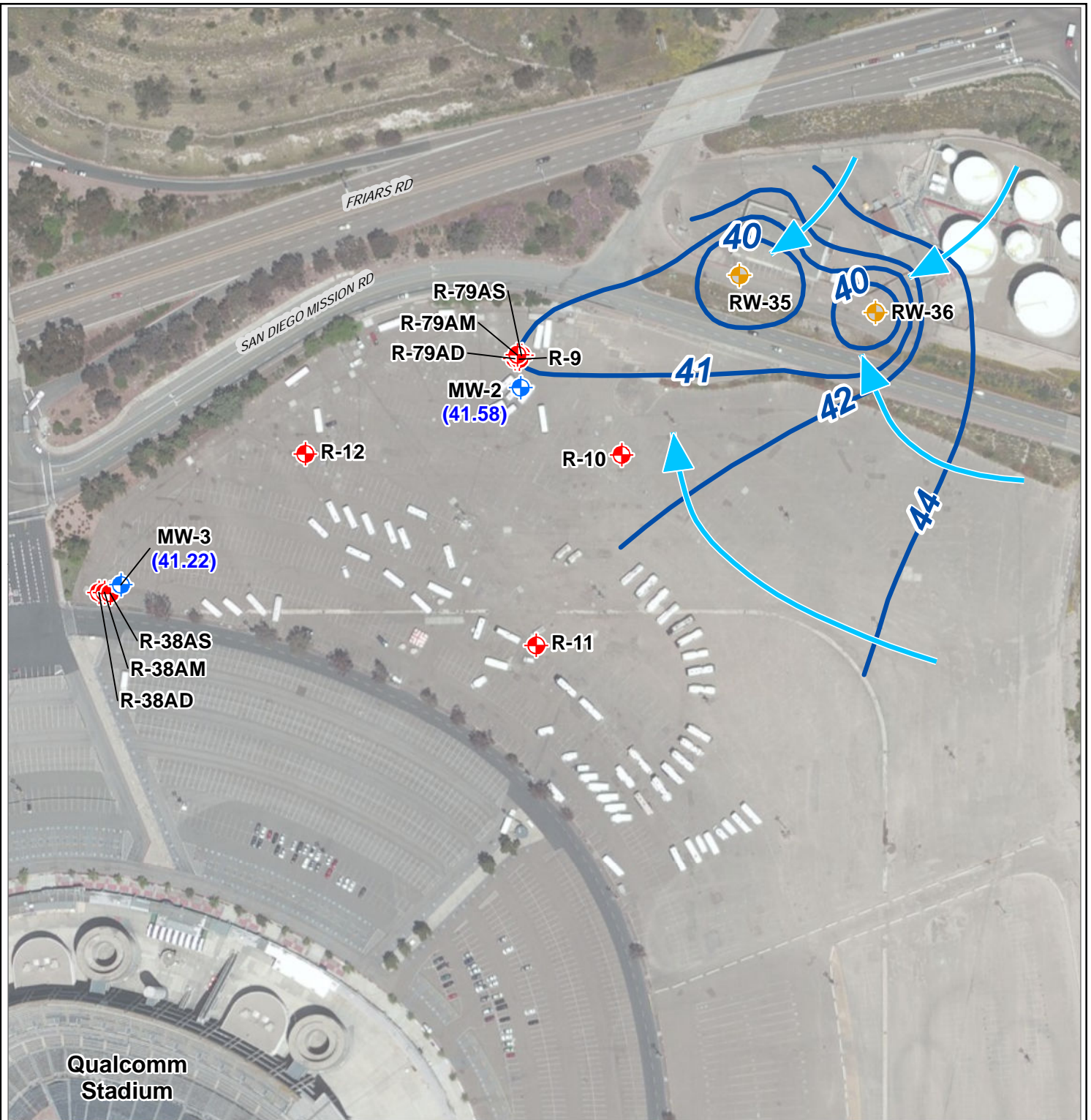
PROJECT No. 07-204-1

PROJECT
Mission Valley Terminal Remediation

DESIGN:
CAD/GIS: LEB
CHECK:
REV: 0A

Date: 1/17/2015

Figure 4.3



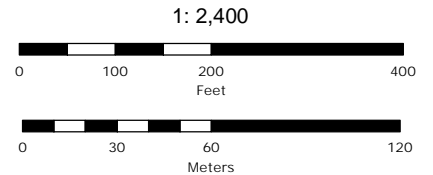
Qualcomm Stadium



Residual drawdown in the former LNAPL Zone due to GWE operations at RW-35 and RW-36 (based on Arcadis, 4Q2014 gauging), Mission Valley Aquifer

Legend

- KMEP Monitoring Well
 - KMEP GWE Well
 - City Monitoring Well
 - Water-level Contour (ft amsl)
 - Groundwater Flow Direction
- Note: MW-2 and MW-3 measured 2014-10-22



PROJECT No. 07-204-1	
PROJECT Mission Valley Terminal Remediation	
DESIGN: CAD/GIS: LEB CHECK: REV: 0A	Figure 4.4
Date: 3/2/2015	

5 SUMMARY AND CONCLUSIONS

The 12 ppb TBA cleanup level was impliedly adopted by the RWQCB when it authorized KMEP to increase discharge of treated groundwater to the Murphy Canyon Creek to 1.2 MGD in 2012 through Resolution R9-2012-0045 (RWQCB, 2012). This Resolution was “[b]ased on the modeling simulations” (i.e., Arcadis, 2011d) in which “*Kinder-Morgan determined that a groundwater discharge increase to 1.26 MGD is needed to increase the rate of groundwater extraction to achieve cleanup goals established by the December 31, 2013 CAO deadline*” (R9-2012-0045, p.2). The ‘modeling simulations’ referred to are those contained in the Groundwater Model Update Report by Arcadis (2011d) in which the 12 ppb TBA cleanup goal is cited on pages 54-55.

With this remedial cleanup goal in mind, we note that residual TBA contamination of the MVA is still detectable above the 12 ppb TBA cleanup level from the MVT to the City’s DB monitoring wells over 1 mile to the southwest, where its presence is inhibiting the redevelopment of the MVA for water-supply purposes (City of San Diego, 2004). Furthermore, the water table in the MVA has not yet fully recovered to its pre-GWE elevations, as the City and the RWQCB’s advisors have recommended, thus the presence of stranded contamination cannot yet be fully determined.

The residual contamination is not simply that due to TBA and benzene. The high rates of groundwater pumping during the past 10 years have led to the seepage of high-TDS groundwater into the MVA than was measured prior to the commissioning of the MVT. Furthermore, the high-TDS groundwater is anoxic as opposed to the original oxygenated groundwater that existed as background. These developments will require increased treatment to restore the groundwater to a quality that can be used for drinking-water purposes.

6 CLOSURE

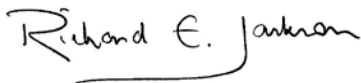
This report has been prepared for the exclusive use of the City of San Diego.

Geofirma Engineering Ltd. and INTERA Inc. have exercised professional judgment in analyzing the information and in formulating recommendations based on the results of the study. The mandate of both companies is to perform the given tasks within guidelines prescribed by the client and with the quality and due diligence expected within the profession. No other warranty or representation expressed or implied, as to the accuracy of the information or recommendations is included or intended in this report.

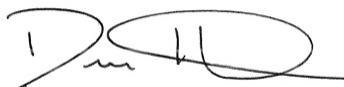
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Respectfully submitted,

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7 REFERENCES

Arcadis, 2011a. Groundwater Monitoring and Remedial Progress Report, Fourth Quarter of 2010. January 28. Irvine, California.

Arcadis 2011b, Groundwater Monitoring and Remedial Progress Report, First Quarter 2011, April 29, Irvine, California.

Arcadis, 2011c, Completion Report, Pilot Borings, Hydropunch Borings, and Groundwater Extraction Wells, Report to County of San Diego, Environmental Health Dept, August 4. Irvine, California.

Arcadis, 2011d, *Groundwater Model Update Report*, December 9, Irvine, California

Arcadis, 2013, *Groundwater Modeling of Post-Dewatering Resaturation of the Off-Terminal LNAPL Zone*, December 13, 2013. Irvine, California.

Arcadis, 2014, Off-Terminal Groundwater Monitoring Report, Third Quarter of 2014, October 30, Irvine, California.

Arcadis, 2015a, Off-Terminal Groundwater Remedial Compliance Evaluation, January 30, Irvine, California.

Arcadis, 2015b, Off-Terminal Groundwater Monitoring Report, Fourth Quarter of 2014, January 30, Irvine, California.

Bennett, P.C., D.E. Siegel, M.J. Baedecker and M.F. Hult. 1993. Crude oil in a shallow sand and gravel aquifer – 1: Hydrogeology and inorganic geochemistry. *Applied Geochemistry* 8(6): 529-549.

Borden, R., C.A. Gomez, and M.T. Becker. 1995. Geochemical indicators of intrinsic bioremediation. *Ground Water* 33(2): 180-189.

City of San Diego, 2004, *Mission Valley Groundwater Desalter Project*, March, Water Department.

CDPH (California Department of Public Health Drinking Water Program), 2012, California Regulations Related to Drinking Water, 21 June, Title 17 Code of Regulations, Sacramento CA.

Cozzareill, I.M., J.K. Bohlke, J. Masoner, G.N. Breit, M.M. Lorah, M.L.W. Tuttle, and J.B. Jaeschke. 2011. Biogeochemical evolution of a landfill leachate plume, Norman, Oklahoma. *Ground Water* 49(5): 663-687.

DWR, 1959, *Ground Water Geology, San Diego River Valley: A Progress Report on Investigation of Ground Water Conditions in San Diego River Valley, San Diego County*, A Report to San Diego Regional Water Pollution Control Board, December, California Department of Water Resources, Sacramento, California.

DWR, 1965, *Ground Water Conditions in San Diego River Valley*, September, California Department of Water Resources, Sacramento, California.

Einarson, M. and Cherry, J.A., 2002. A new multilevel ground water monitoring system using multichannel tubing. *Ground Water Monitoring & Remediation* 22(4): 52-65.

Geofirma/INTERA, 2011. *Remediation of the Mission Valley Aquifer*. Geofirma Engineering Ltd, Ottawa, Ontario, Canada and INTERA Inc., Suite 220, 6000 Uptown, Albuquerque, NM, April 1.

Geofirma/INTERA, 2012. *Peer Review of Arcadis' Groundwater Model Update*. Geofirma Engineering Ltd, Ottawa, Ontario, Canada and INTERA Inc., Suite 220, 6000 Uptown, Albuquerque, NM, August 17.

Geofirma/INTERA, 2013. *Remediation of MTBE and TBA, Mission Valley Aquifer*. Geofirma Engineering Ltd, Ottawa, Ontario, Canada and INTERA Inc., Suite 220, 6000 Uptown, Albuquerque, NM, January 18.

Harding Lawson Associates, 1999, *Groundwater Characterization Report, Mission Valley Terminal, San Diego, California*. Irvine, California, dated January 14.

ITRC, 2005. *Overview of Groundwater Remediation Technologies for MTBE and TBA*. Technology Overview, The Interstate Technology & Regulatory Council, MTBE and Other Fuel Oxygenates Team.

Johnson, P.C. and Eggers, M.R., 2005. Comments regarding remediation considerations for the Mission Valley Terminal Site, San Diego, California. January 7, Eggers Environmental Inc., Oceanside, California.

Johnson, R., Pankow, J. Bender, D., Price, C. and Zogorski, J., 2000. MTBE: To what extent will past releases contaminate community water supply wells? *Environmental Science & Technology* 34(9): 210A-217A.

Lee, L.; Helsel, D., 2005, Baseline models of trace elements in major aquifers of the United States. *Appl. Geochem.* 20 (8), 1560-1570.

LFR, 2009, 2Q 2009 Quarterly Groundwater Monitoring & Remedial Progress Report, 29 July, Costa Mesa CA.

LFR, 2005, Site Conceptual Model and Off-Terminal Corrective Action Plan, Mission Valley Terminal, San Diego, California. September 8, Costa Mesa, California.

LFR, 2007a. Evaluation of Natural Attenuation of MTBE and TBA in Off-Terminal Groundwater, Mission Valley Terminal, San Diego, California. July 20, Costa Mesa, California.

LFR, 2007b. Evaluation of Remedial Progress in the Off-Terminal LNAPL Zone, Mission Valley Terminal, San Diego, California. October 31, Costa Mesa, California.

Nichols, E.M., Einarson, M.D. and Beadle, S.C., 2000. Strategies for characterizing subsurface releases of gasoline containing MTBE. API Summary No. 11, August.

Rasa, E., Chapman, S.W., Bekins, B.A., Fogg, G.E., Scow, K.M., and Mackay, D.M., 2011, Role of back diffusion and biodegradation reactions in sustaining an MTBE/TBA plume in alluvial media. *J*

Contaminant Hydrology 126: 235-247.

RWQCB, 2005, Addendum No. 5 to Cleanup and Abatement Order No. 92-01, California Regional Water Quality Control Board San Diego Region, April 13.

RWQCB, 2012, Resolution R9-2012-0045, San Diego Regional Water Quality Control Board, June 13.

Schwille, F., 1988. *Dense Chlorinated Solvents in Porous and Fractured Media: Model Experiments*. Translated by James F. Pankow, Lewis Publishers, Chelsea, Michigan.

Sengebush, R.M., Heagle, D.J. and Jackson, R.E., 2015, The Quaternary History and Groundwater Quality of a Coastal California Aquifer, in revision, *Environmental & Engineering Geoscience*.

Simon Hydro-Search, 1992, *Corrective Action Plan, Mission Valley Terminal, 9950 San Diego Mission Road, San Diego, California*. Huntington Beach, California, September 1.

URS, 2011, Well construction report 3025 Camino del Rio North San Diego California, November 11, La Jolla, California.

Whitfield, M., 1974, Thermodynamic limitations on the use of the Platinum electrode in Eh measurements, *Limnology & Oceanography* 19(5): 857-865.

Wright, M.T., and Belitz, K., 2011, *Status and Understanding of Groundwater Quality in the San Diego Drainages Hydrogeologic Province, 2004: California GAMA Priority Basin Project*. USGS Scientific Investigations Report 2011-5154, 100 p.

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APPENDIX A

Construction details for MW-1, MW-2 and MW-3

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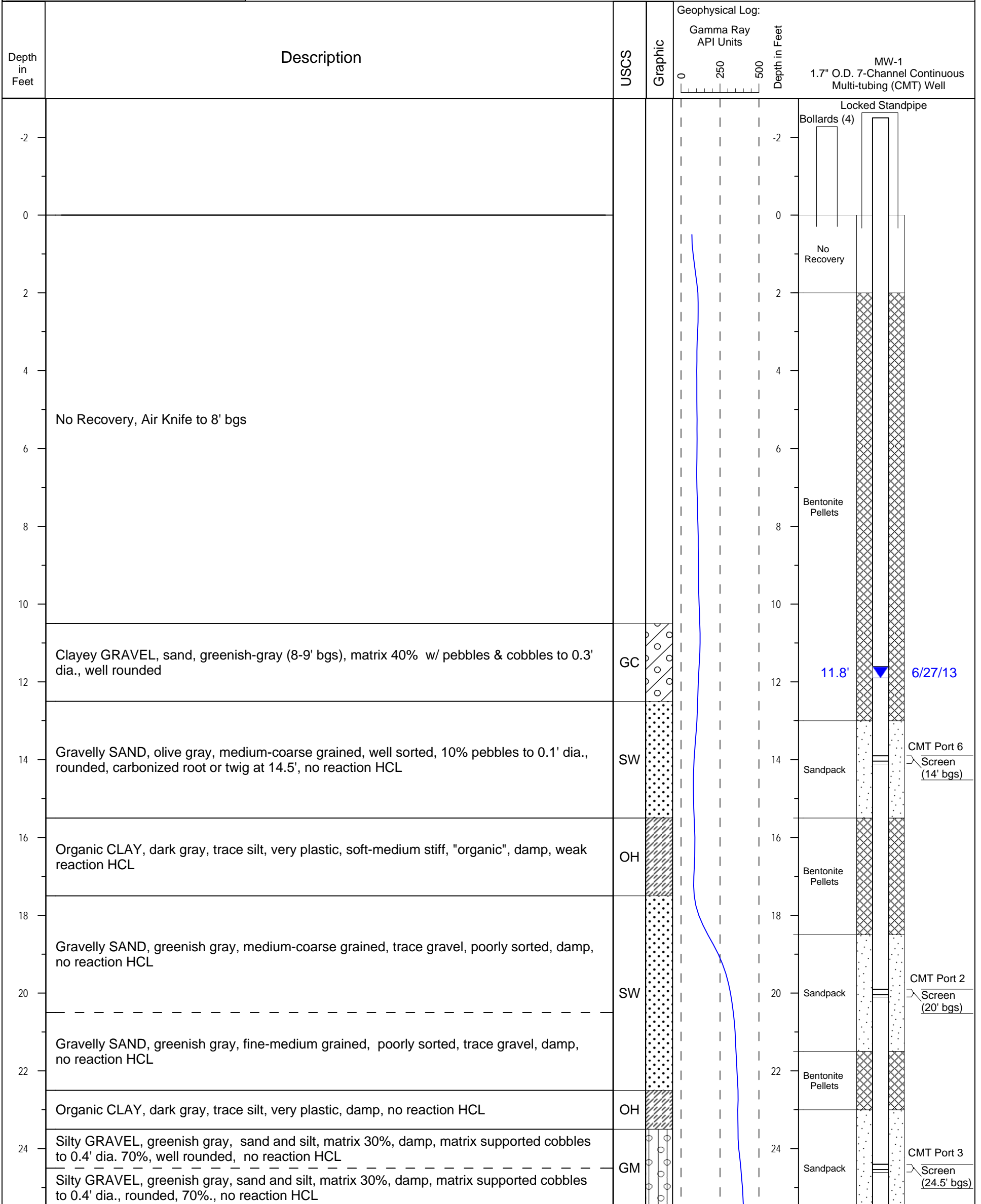
LOG OF BORING AND WELL CONSTRUCTION:
MW-1

Date Started	: 6/26/2013	Depth to Water	: 11.80' bgs 6/27/13
Date Completed	: 6/26/2013	Logged By	: R. Sengebush
Drilling Method	: Sonic	Latitude	: 32° 47' 43.80507" N
Sampling Method	: Core	Longitude	: 117° 06' 47.98199" W
Drilling Company	: Cascade Drilling	TOC Elevation:	: 92.83
Driller	: V. Godoy	Boring Total Depth	: 41' bgs

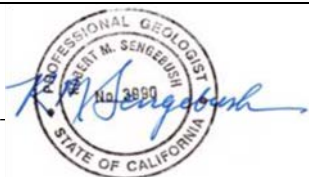
Project Name:
MVT Remediation
San Diego, California

Notes:
1. Added 2.5 ft to original logged depths per interpretation of gamma ray log run on June 27, 2013. Key depth is contact of alluvium and Friars Formation at 33.5 ft bgs, per gamma ray log.
2. Color descriptions from Geotechnical Gauge, W.F. Mc Collough.
3. Typical texture and mineralogy apply in alluvial sand, gravel/cobbles, and Friars Formation: Alluvial sand (typical) - light gray, medium grained, moderately sorted, 45% qtz - clear; 45% feldspar - white to yellow-brown to pink, slightly altered to clay or partially dissolved out of crystal framework; <5% accessory minerals- mafics - hornblende? Alluvial gravel and cobbles (typical) - volcanic, medium phaneritic, porphyritic; qtz 45%- clear; feldspar 45% - white to yellow-brown to pink altered to clay or partially dissolved out of cobble; mafic minerals less than 5%. Friars Formation sand (SP) (typical) - medium grained, moderately to well sorted, angular, 20% qtz; 55% feldspar - altered, forms clay matrix; 10% biotite - fresh, black, up to coarse-grained dia., 15% lithic grains - black, green, pink, yellow; no reaction HCL.
4. Each screen interval is 3 inches.
5. Well construction materials: Sand - Cemex Lapis Lustre, #3 graded, clean, kiln dried Monterey Sand; Bentonite Pellets - Pel-Plug bentonite pellets, 2/3", TR-30.

Project #: SNDGO.C001.MVPR



Approved by: _____



Date: July 17, 2013



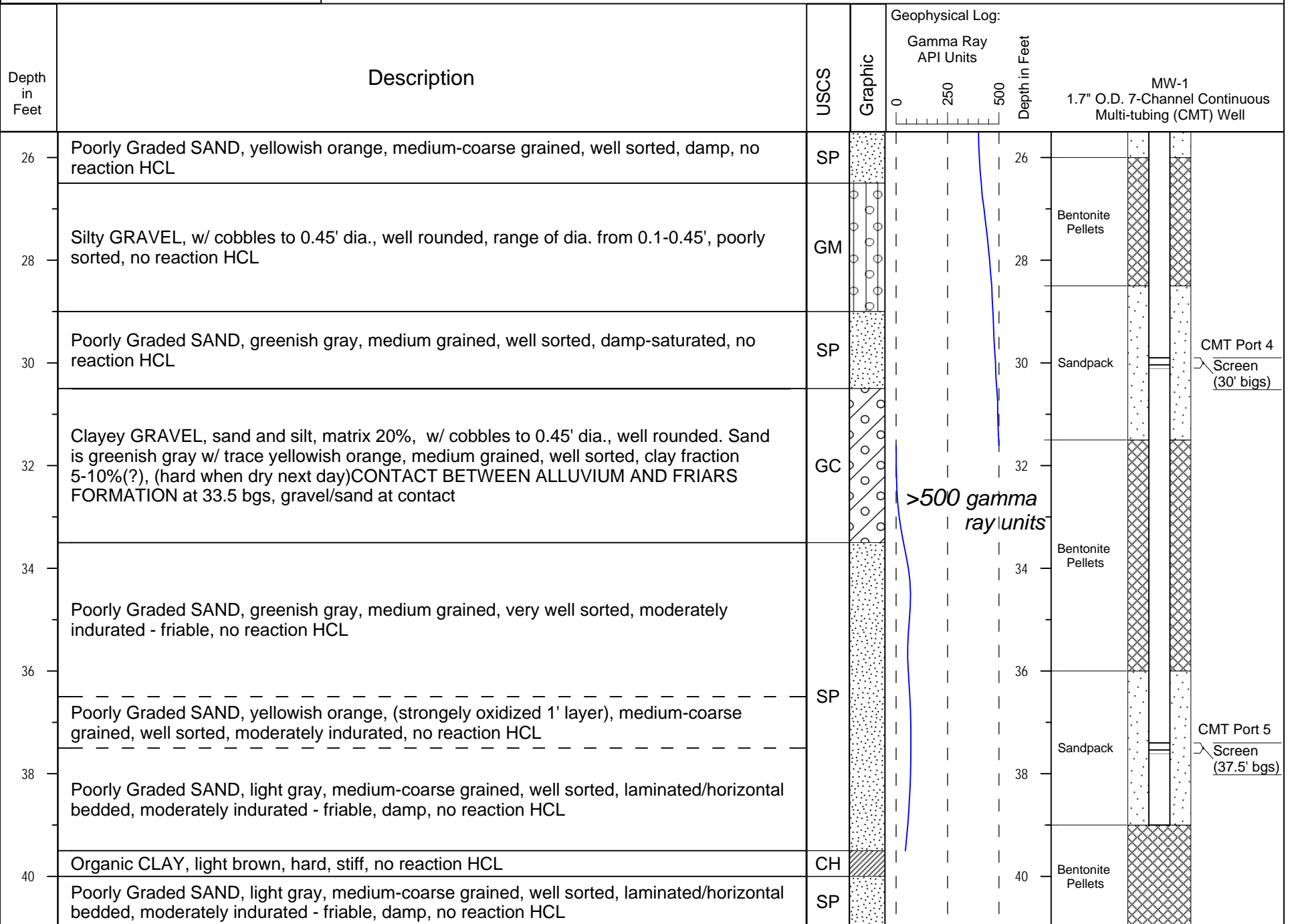
LOG OF BORING AND WELL CONSTRUCTION:
MW-1

Date Started	: 6/26/2013	Depth to Water	: 11.80' bgs 6/27/13
Date Completed	: 6/26/2013	Logged By	: R. Sengebush
Drilling Method	: Sonic	Latitude	: 32° 47' 43.80507" N
Sampling Method	: Core	Longitude	: 117° 06' 47.98199" W
Drilling Company	: Cascade Drilling	TOC Elevation:	: 92.83
Driller	: V. Godoy	Boring Total Depth	: 41' bgs

Project Name:
MVT Remediation
San Diego, California

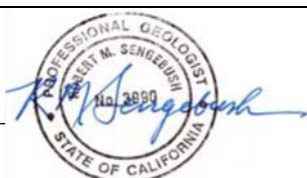
Notes:
1. Added 2.5 ft to original logged depths per interpretation of gamma ray log run on June 27, 2013. Key depth is contact of alluvium and Friars Formation at 33.5 ft bgs, per gamma ray log.
2. Color descriptions from Geotechnical Gauge, W.F. Mc Collough.
3. Typical texture and mineralogy apply in alluvial sand, gravel/cobbles, and Friars Formation: Alluvial sand (typical) - light gray, medium grained, moderately sorted, 45% qtz - clear; 45% feldspar - white to yellow-brown to pink, slightly altered to clay or partially dissolved sodium feldspar out of crystal framework; <5% accessory minerals- mafics - hornblende? Alluvial gravel and cobbles (typical) - volcanic, medium phaneritic, porphyritic; qtz 45%- clear; feldspar 45% - white to yellow-brown to pink altered to clay or partially dissolved out of cobble; mafic minerals less than 5%. Friars Formation sand (SP) (typical) - medium grained, moderately to well sorted, angular, 20% qtz; 55% feldspar - altered, forms clay matrix; 10% biotite - fresh, black, up to coarse-grained dia., 15% lithic grains - black, green, pink, yellow; no reaction HCL.
4. Each screen interval is 3 inches.
5. Well construction materials: Sand - Cemex Lapis Lustre, #3 graded, clean, kiln dried Monterey Sand; Bentonite Pellets - Pel-Plug bentonite pellets, 2/3", TR-30.

Project #: SNDGO.C001.MVPR



Total Depth of Boring = 41' bgs

Approved by: _____



Date: July 17, 2013



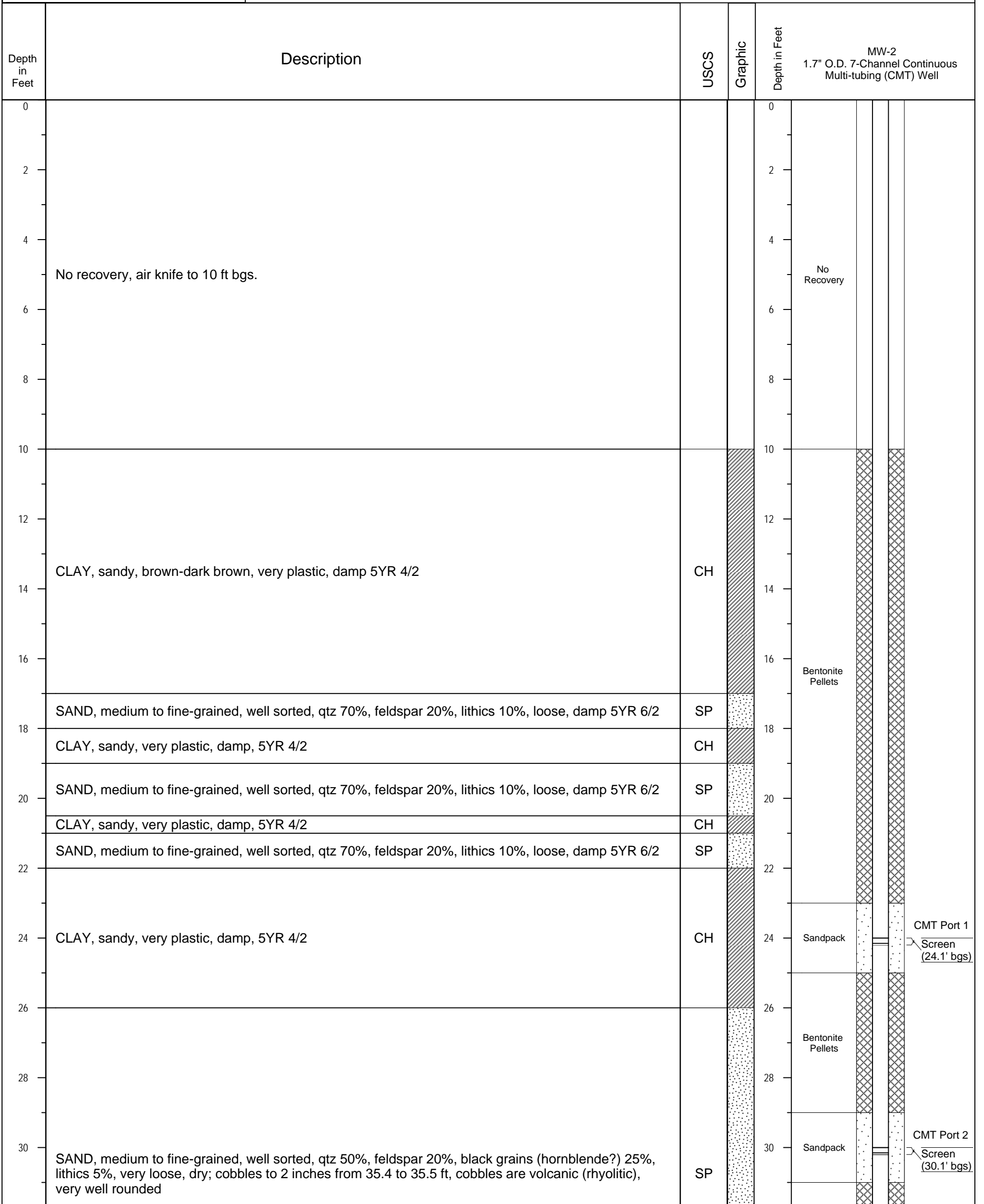
**LOG OF BORING AND WELL CONSTRUCTION:
MW-2**

Date Started	: 1/5/2014	Depth to Water	: NA
Date Completed	: 1/6/2014	Logged By	: R. Sengebusch
Drilling Method	: Sonic	Latitude	: 32° 47' 11.4936" N
Sampling Method	: Core	Longitude	: 117° 7' 3.8136" W
Drilling Company	: Cascade Drilling	TOC Elevation:	: 65.53' amsl
Driller	: C. Hernandez	Boring Total Depth	: 80.5' bgs

Project Name:
MVT Remediation
San Diego, California

Notes:
 1. No reaction with HCL in any of the cores except: caliche nodules at 24 to 25 ft, 80.5 ft white layers to 0.5 inches thick in Friars Formation.
 2. Color descriptions from Geotechnical Gauge, W.F. Mc Collough.
 3. Typical texture and mineralogy apply in alluvial sand, gravel/cobbles, and Friars Formation: Alluvial sand (typical) - light gray, medium grained, moderately sorted, 45% qtz - clear; 45% feldspar - white to yellow-brown to pink, slightly altered to clay or partially dissolved sodium feldspar out of crystal framework; <5% accessory minerals-mafics - hornblende? Alluvial gravel and cobbles (typical) - volcanic, medium phaneritic, porphyritic; qtz 45% - clear; feldspar 45% - white to yellow-brown to pink altered to clay or partially dissolved out of cobble; mafic minerals less than 5%. Friars Formation sand (SP) (typical) - medium grained, moderately to well sorted, angular, 20% qtz; 55% feldspar - altered, forms clay matrix; 10% blotite - fresh, black, up to coarse-grained dia., 15% lithic grains - black, green, pink, yellow; no reaction HCL.
 4. Each screen interval is 3 inches.
 5. Well construction materials: Sand - Cemex Lapis Lustre, #3 graded, clean, kiln dried Monterey Sand; Bentonite Pellets - Pel-Plug bentonite pellets, 2/3", TR-30.

Project #: SNDGO.C001.MVPR



Approved by: _____



Date: October 24, 2014



LOG OF BORING AND WELL CONSTRUCTION:
MW-2

Date Started : 1/5/2014
 Date Completed : 1/6/2014
 Drilling Method : Sonic
 Sampling Method : Core
 Drilling Company : Cascade Drilling
 Driller : C. Hernandez
 Depth to Water : NA
 Logged By : R. Sengebusch
 Latitude : 32° 47' 11.4936" N
 Longitude : 117° 7' 3.8136" W
 TOC Elevation : 65.53' amsl
 Boring Total Depth : 80.5' bgs

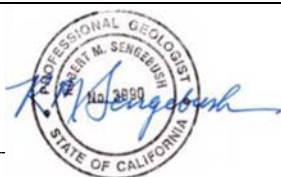
Project Name:
MVT Remediation
San Diego, California

Notes:
 1. No reaction with HCL in any of the cores except: caliche nodules at 24 to 25 ft, 80.5 ft white layers to 0.5 inches thick in Friars Formation.
 2. Color descriptions from Geotechnical Gauge, W.F. Mc Collough.
 3. Typical texture and mineralogy apply in alluvial sand, gravel/cobbles, and Friars Formation: Alluvial sand (typical) - light gray, medium grained, moderately sorted, 45% qtz - clear; 45% feldspar - white to yellow-brown to pink, slightly altered to clay or partially dissolved sodium feldspar out of crystal framework; <5% accessory minerals- mafics - hornblende? Alluvial gravel and cobbles (typical) - volcanic, medium phaneritic, porphyritic; qtz 45%- clear; feldspar 45% - white to yellow-brown to pink altered to clay or partially dissolved out of cobble; mafic minerals less than 5%. Friars Formation sand (SP) (typical) - medium grained, moderately to well sorted, angular, 20% qtz; 55% feldspar - altered, forms clay matrix; 10% blotite - fresh, black, up to coarse-grained dia., 15% lithic grains - black, green, pink, yellow; no reaction HCL.
 4. Each screen interval is 3 inches.
 5. Well construction materials: Sand - Cemex Lapis Lustre, #3 graded, clean, kiln dried Monterey Sand; Bentonite Pellets - Pel-Plug bentonite pellets, 2/3", TR-30.

Project #: SNDGO.C001.MVPR

Depth in Feet	Description	USCS	Graphic	Depth in Feet	MW-2 1.7" O.D. 7-Channel Continuous Multi-tubing (CMT) Well
32	SAND: same as previous	SP		32	Bentonite Pellets
34				34	
36	CLAY, sandy, very plastic, damp, 5YR 4/2	CH		36	Sandpack
38	SAND with cobbles at 37.5 to 37.8 ft. Sand is medium to coarse grained, moderately sorted, 60% qtz, 25% feldspar, 20% black grains (hornblende?), 5% lithics (pink), very loose, damp; cobbles to 2 inches, volcanic, very well rounded.	SP/GW		38	CMT Port 3 Screen (36.1' bgs)
40				40	
42	CLAY, sandy, very plastic, damp, 5YR 4/2	CH		42	Bentonite Pellets
44				44	
46	SAND, medium to fine-grained, moderately to poorly sorted, qtz 70%, feldspar 20%, lithics 10%, loose, damp 5YR 6/2	SP		46	
48	SAND, with cobbles to 3 inches, matrix supported, 10YR 6/2			48	
50	SAND, with cobbles to 3 inches, matrix supported, 10YR 6/3; cobbles at 49.5 to 50 ft.			50	Sandpack
52				52	CMT Port 4 Screen (50.1' bgs)
54	SAND, pebbles, gravel, cobbles, in layers 55 to 57 ft. SAND as above. Cobbles are matrix supported with medium to coarse grained sand, 56.7 to 56.8 sand is iron stained orange in layers and includes a 1/4 inch thick layer of "black sand".	SP/GW		54	Bentonite Pellets
56				56	
58				58	
60				60	Sandpack
62	SAND, medium to fine-grained, moderately to poorly sorted, qtz 70%, feldspar 20%, lithics 10%, loose, damp 5YR 6/2; cobbles at 62.5 to 63.5 to 4 inches, volcanic, very well rounded			62	CMT Port 5 Screen (60.1' bgs)

Approved by: _____



Date: October 24, 2014



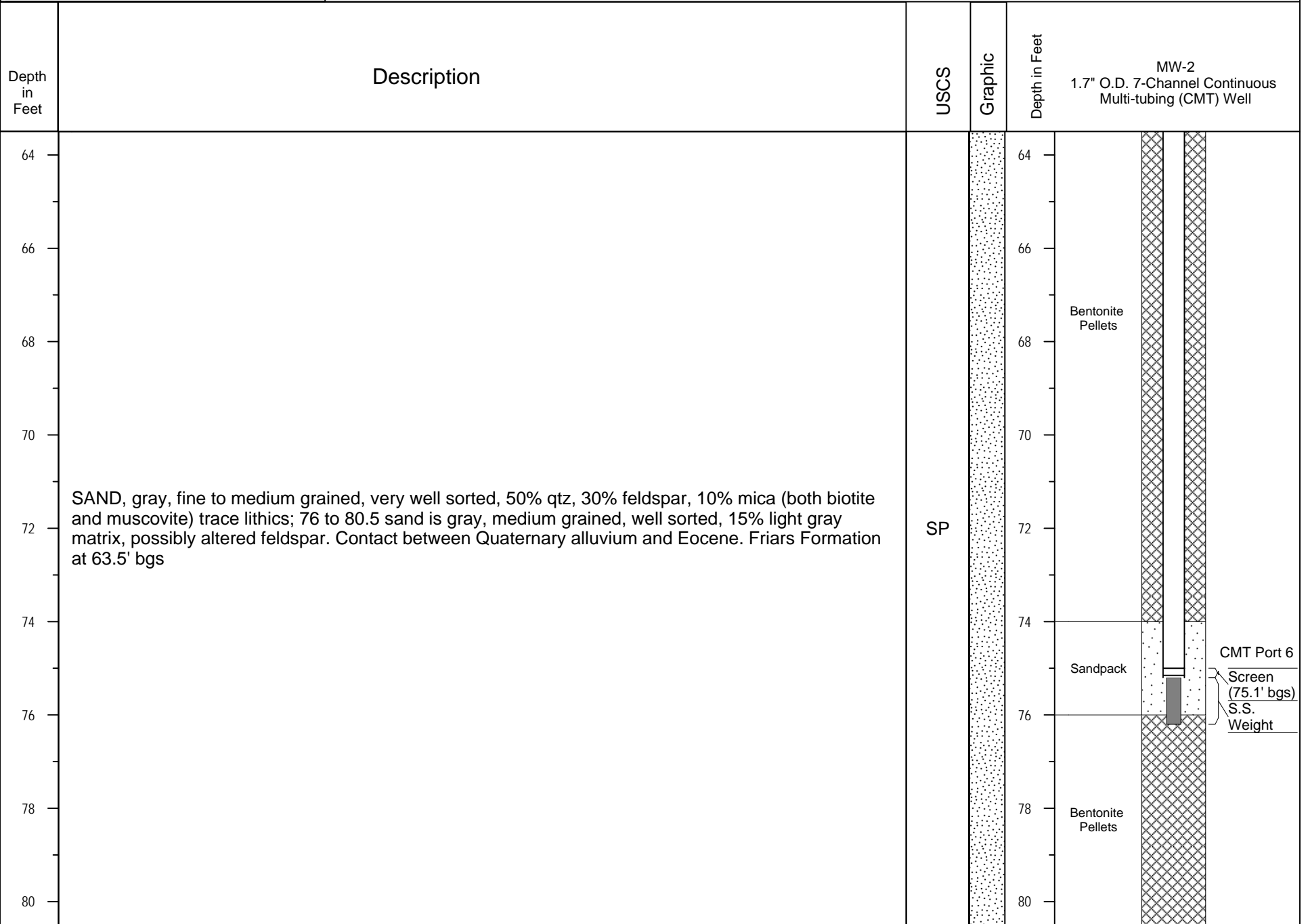
**LOG OF BORING AND WELL CONSTRUCTION:
MW-2**

Date Started	: 1/5/2014	Depth to Water	: NA
Date Completed	: 1/6/2014	Logged By	: R. Sengebush
Drilling Method	: Sonic	Latitude	: 32° 47' 11.4936" N
Sampling Method	: Core	Longitude	: 117° 7' 3.8136" W
Drilling Company	: Cascade Drilling	TOC Elevation:	: 65.53' amsl
Driller	: C. Hernandez	Boring Total Depth	: 80.5' bgs

Project Name:
MVT Remediation
San Diego, California

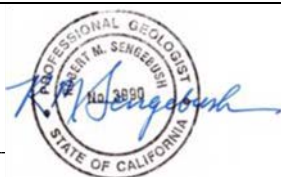
Notes:
 1. No reaction with HCL in any of the cores except: caliche nodules at 24 to 25 ft, 80.5 ft white layers to 0.5 inches thick in Friars Formation.
 2. Color descriptions from Geotechnical Gauge, W.F. Mc Collough.
 3. Typical texture and mineralogy apply in alluvial sand, gravel/cobbles, and Friars Formation: Alluvial sand (typical) - light gray, medium grained, moderately sorted, 45% qtz - clear; 45% feldspar - white to yellow-brown to pink, slightly altered to clay or partially dissolved sodium feldspar out of crystal framework; <5% accessory minerals-mafics - hornblende? Alluvial gravel and cobbles (typical) - volcanic, medium phaneritic, porphyritic; qtz 45%- clear; feldspar 45% - white to yellow-brown to pink altered to clay or partially dissolved out of cobble; mafic minerals less than 5%. Friars Formation sand (SP) (typical) - medium grained, moderately to well sorted, angular, 20% qtz; 55% feldspar - altered, forms clay matrix; 10% biotite - fresh, black, up to coarse-grained dia., 15% lithic grains - black, green, pink, yellow; no reaction HCL.
 4. Each screen interval is 3 inches.
 5. Well construction materials: Sand - Cemex Lapis Lustre, #3 graded, clean, kiln dried Monterey Sand; Bentonite Pellets - Pel-Plug bentonite pellets, 2/3", TR-30.

Project #: SNDGO.C001.MVPR



Total Depth of Boring = 80.5' bgs

Approved by: _____



Date: October 24, 2014



LOG OF BORING AND WELL CONSTRUCTION:
MW-3

Date Started : 1/3/2014
Date Completed : 1/4/2014
Drilling Method : Sonic
Sampling Method : Core
Drilling Company : Cascade Drilling
Driller : C. Hernandez

Depth to Water : NA
Logged By : R. Sengebusch
Latitude : 32° 47' 8.6706" N
Longitude : 117° 7' 10.4514" W
TOC Elevation : 62.37' amsl
Boring Total Depth : 76' bgs

Project Name:
MVT Remediation
San Diego, California

Notes:
1. Color descriptions from Geotechnical Gauge, W.F. Mc Collough.
2. Typical texture and mineralogy apply in alluvial sand, gravel/cobbles, and Friars Formation: Alluvial sand (typical) - light gray, medium grained, moderately sorted, 45% qtz - clear; 45% feldspar - white to yellow-brown to pink, slightly altered to clay or partially dissolved sodium felspar out of crystal framework; <5% accessory minerals-mafics - hornblende? Alluvial gravel and cobbles (typical) - volcanic, medium phaneritic, porphyritic; qtz 45%- clear; feldspar 45% - white to yellow-brown to pink altered to clay or partially dissolved out of cobble; mafic minerals less than 5%. Friars Formation sand (SP) (typical) - medium grained, moderately to well sorted, angular, 20% qtz; 55% feldspar - altered, forms clay matrix; 10% biotite - fresh, black, up to coarse-grained dia., 15% lithic grains - black, green, pink, yellow; no reaction HCL.
3. Each screen interval is 3 inches.
4. Well construction materials: Sand - Cemex Lapis Lustre, #3 graded, clean, kiln dried Monterey Sand; Bentonite Pellets - Pel-Plug bentonite pellets, 2/3", TR-30.

Project #: SNDGO.C001.MVPR

Depth in Feet	Description	USCS	Graphic	Depth in Feet	MW-3 1.7" O.D. 7-Channel Continuous Multi-tubing (CMT) Well
0				0	
2				2	
4				4	
6	No recovery, air knife to 10 ft bgs.			6	No Recovery
8				8	
10				10	
12	SAND, silty, clayey, N3/ medium to fine grained, very well sorted, 10% light brown nodules to 0.5" dia., nodules reactive with HCL	SC		12	
14	CLAY, sandy, N3/, 15-20% muscovite, caliche nodules, reaction with HCL	CL		14	
16	CLAY, sandy, N3/, as above	CL		16	
18	SAND, N3/, fine grained, very well sorted, abundant muscovite, no reaction HCL	SP		18	Bentonite Pellets
20	CLAY, sandy, N3/, stiff	CL		20	
22	SAND, 2.5Y 6/2 light gray green, medium grained, very well sorted, very loose, friable, quartz 50%, feldspar 30%, black lithics (?) 10%, pink (feldspar?) 5%, weathered biotite or muscovite 5%.	SP		22	
24				24	Sandpack
26	CLAY, sandy, 7.5 YR4/1 dark brown	CL		26	
28				28	Bentonite Pellets
30				30	Sandpack
32	SAND, 2.5Y 6/2 light gray green, fine to medium grained, very well sorted, very loose, cobbles at 27.5', -28' 2" dia., 31.5'-32' 3" dia., 32'-32.2' 2" dia., quartz 50%, white feldspar 20%, pink feldspar 20%, black lithics or biotite 10-15%, water saturated at 36'?			32	Bentonite Pellets
34				34	
36				36	Sandpack
38				38	
40				40	Bentonite Pellets
42	SAND, 2.5Y 6/2, light gray green, medium to coarse grained, well sorted, cobbles to 3" dia. At 40', very well rounded volcanic (rhyolite), cobbles 45' to 45.5' to 3" dia.	SP		42	

CMT Port 1
Screen
(24.1' bgs)

CMT Port 2
Screen
(30.1' bgs)

CMT Port 3
Screen
(36.1' bgs)



Approved by: _____

Date: October 24, 2014



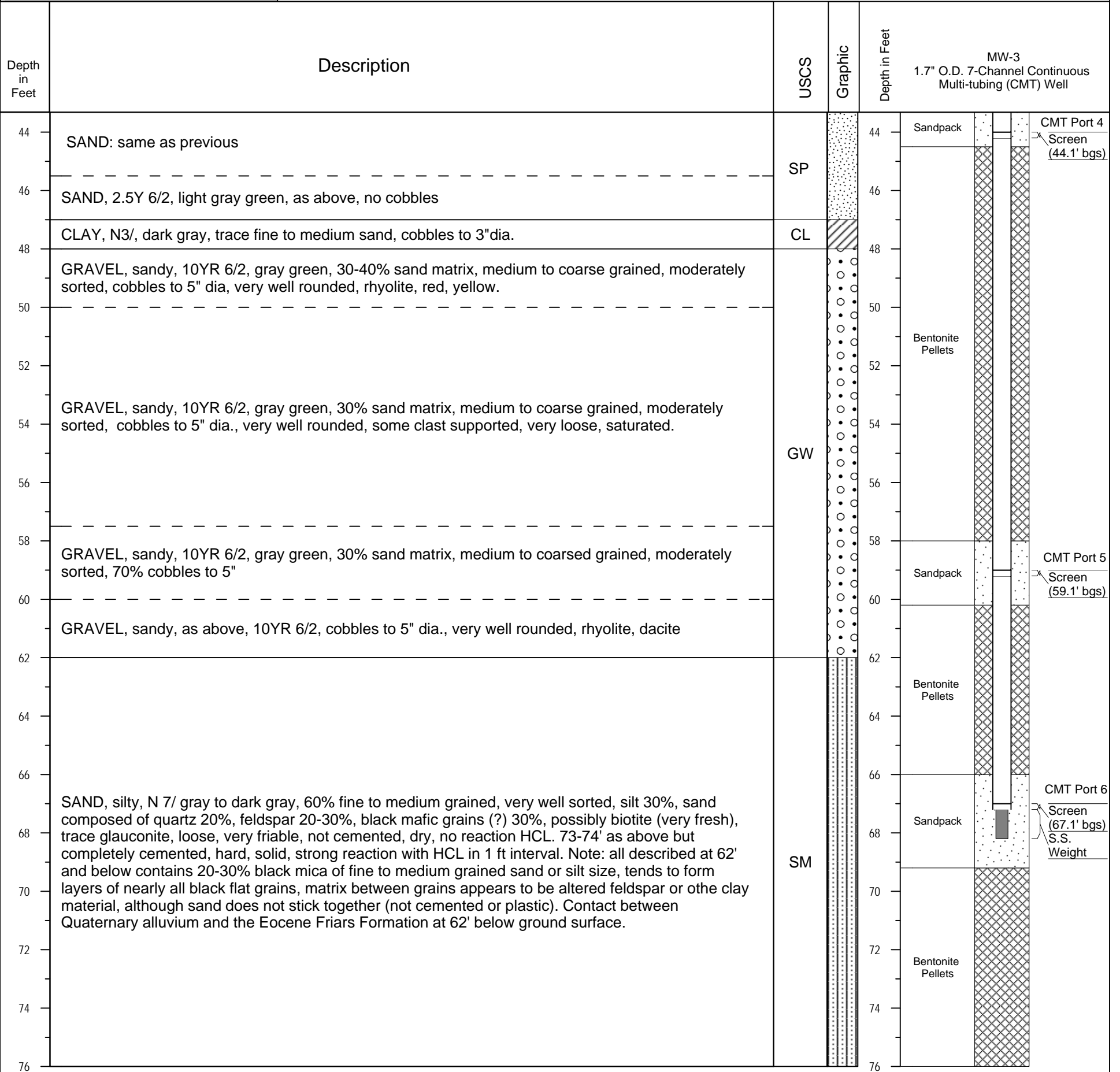
LOG OF BORING AND WELL CONSTRUCTION:
MW-3

Date Started : 1/3/2014
Date Completed : 1/4/2014
Drilling Method : Sonic
Sampling Method : Core
Drilling Company : Cascade Drilling
Driller : C. Hernandez
Depth to Water : NA
Logged By : R. Sengebush
Latitude : 32° 47' 8.6706" N
Longitude : 117° 7' 10.4514" W
TOC Elevation : 62.37' amsl
Boring Total Depth : 76' bgs

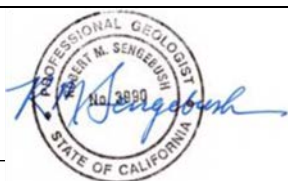
Project Name:
MVT Remediation
San Diego, California

Notes:
1. Color descriptions from Geotechnical Gauge, W.F. Mc Collough.
2. Typical texture and mineralogy apply in alluvial sand, gravel/cobbles, and Friars Formation: Alluvial sand (typical) - light gray, medium grained, moderately sorted, 45% qtz - clear; 45% feldspar - white to yellow-brown to pink, slightly altered to clay or partially dissolved sodium felspar out of crystal framework; <5% accessory minerals- mafics - hornblende? Alluvial gravel and cobbles (typical) - volcanic, medium phaneritic, porphyritic; qtz 45%- clear; feldspar 45% - white to yellow-brown to pink altered to clay or partially dissolved out of cobble; mafic minerals less than 5%. Friars Formation sand (SP) (typical) - medium grained, moderately to well sorted, angular, 20% qtz; 55% feldspar - altered, forms clay matrix; 10% biotite - fresh, black, up to coarse-grained dia., 15% lithic grains - black, green, pink, yellow; no reaction HCL.
3. Each screen interval is 3 inches.
4. Well construction materials: Sand - Cemex Lapis Lustre, #3 graded, clean, kiln dried Monterey Sand; Bentonite Pellets - Pel-Plug bentonite pellets, 2/3", TR-30.

Project #: SNDGO.C001.MVPR



Total Depth of Boring = 76' bgs



Approved by: _____

Date: October 24, 2014

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APPENDIX B

Comparison of Analytical Estimates from Two Laboratories

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APPENDIX B

COMPARISON OF ANALYTICAL ESTIMATES FROM TWO LABORATORIES

1Q 2014

The FGL reports for the January 2014 sampling event had a qualification regarding the quality control for some of the 1,2-dichlorobenzene and 4-bromofluorobenzene surrogate results. The results for these two surrogates were considered acceptable based on the Laboratory Control Standard/Sample or Continuing Calibration Verification (LCS/CCV) recovery. The Laboratory Control Standard/Sample is prepared to verify that the preparation process is not affecting analyte recovery and the Continuing Calibration Verification is an analysis to verify the instrument calibration is within criteria. Additionally, some of the Quality Control (QC) results for 1,2-dichlorobenzene and 4-bromofluorobenzene were determined such that the practical quantitation limits were adjusted to reflect the range for which FGL considered reliable.

The FGL reports for QC of the February 2014 sampling event had the same LCS/CCV recovery qualification discussed above attached to some of the potassium, bromide, chloride, nitrate, boron, iron and manganese results. Additionally, the reports had the same qualification for tert-butanol (TBA) and methyl tert-butyl ether (MTBE). All of the potassium, bromide, chloride, nitrate, boron, iron, manganese, TBA and MTBE results were considered to be acceptable.

2Q 2014

The FGL QC reports for the April 2014 sampling event had the same LCS/CCV recovery qualification discussed above attached to some of the potassium, iron, manganese, nitrate and bromide results. All of the potassium, iron, manganese, nitrate and bromide results were considered to be acceptable. The LCS/CCV results for naphthalene were above the acceptable range, therefore, samples with a detectable amount of naphthalene were not accepted and only samples that had concentrations below the detection limit were accepted.

3Q 2014

The FGL QC reports for the July 2014 sampling event had the same LCS/CCV recovery qualification discussed above attached to some of potassium, strontium, boron, iron, manganese, TBA and vinyl chloride results. All of the potassium, strontium, boron, iron, manganese, TBA and vinyl chloride results were considered to be acceptable. Additionally, the LCS/CCV results for TBA and MTBE were above the accepted range, therefore, samples with a detectable amount of TBA were not accepted and only samples that had concentrations below the detection limit were accepted.

4Q 2014

The FGL QC reports for the October 2014 sampling event had the same LCS/CCV recovery qualification discussed above attached to the some of potassium, boron, iron, manganese, chloride bromide, nitrate, and sulphate results. All of the potassium, boron, iron, manganese, chloride bromide, nitrate, and sulphate results were considered to be acceptable. Also, the baseline signal for iron did not return to an acceptable range. FGL accepted the results because the results were five times greater than the baseline vale or non-detect relative to the detection limit. The LCS/CCV results for TBA, were above the accepted range, therefore, samples with a detectable amount of TBA were not accepted and only samples that had concentrations below the detection limit were accepted.

Review of FGL's Analytical Results

The TBA results for 2014 were questioned by Geofirma Engineering in December and those that were reported with a LCS/CCV qualification were amended in December to revise the reported ND (Non-Detect) resultst. A corrected set of TBA results was issued.

The numerous qualifications of data provided by FGL prompted the need to compare the reported results to another laboratory to improve the understanding of how to interpret FGLs reported results. Groundwater samples collected from the third and fourth quarter monitoring events were sent to FGL and to the City of San Diego's laboratory (City Lab). The laboratories did not analyze the samples for all of the same parameters but there were nine parameters analyzed by both labs including: total iron, dissolved iron, total manganese, dissolved manganese, dissolved arsenic, dissolved barium, dissolved strontium, TBA and MTBE.

Figure 1 below shows a comparison of the City Lab results along the horizontal axis (abscissa) and the FGL results along the vertical axis (ordinate) for the inorganic parameters analyzed by both labs. Note the axes are in a logarithmic scale due to the wide range of concentrations (in $\mu\text{g/L}$). The solid black line is a 1:1 line where the analytical results would plot if both laboratories reported the same concentration. The majority of the results are near the 1:1 line with some arsenic and manganese exceptions. The logarithmic scale minimizes the difference between the data points and the 1:1 line, which makes it appear as though the laboratories are reporting values that are closer to each other than they really are.

Figures 2 and 3 follow the same format, i.e., Figure 2 shows the MTBE results and Figure 3 the TBA results. For results that were reported as ND (Non-Detect) the detection limit was report (City Lab MTBE = $0.4 \mu\text{g/L}$, TBA = $1 \mu\text{g/L}$; FGL MTBE = $1 \mu\text{g/L}$, TBA = $2 \mu\text{g/L}$). The City Lab did not report a value for the third quarter MW-3 Port 5 sample for MTBE. This result is shown as a concentration of $0 \mu\text{g/L}$ in Figure 2. The MTBE results generally have good agreement with the FGL showing slightly higher concentrations which is likely due to the larger detection limit that represents the concentrations as $1 \mu\text{g/L}$. The two MTBE concentrations reported by FGL near $4 \mu\text{g/L}$ are approximately $1 \mu\text{g/L}$ greater than the concentrations reported by the City Lab.

The TBA concentrations are shown in Figure 3. Two, 3Q results reported by the City Lab were greater than the results reported by FGL. All of the remaining 3Q and 4Q results reported by the City Lab were lower than the results reported by FGL. However, FGL did amend their reported TBA values based on the CCV results as discussed above; these amended data are shown in Figure 3. Qualified TBA values up to 46 $\mu\text{g/L}$ were reported as below the detection limit by the City Lab. However, two ND results reported by FGL were reported as 2.92 and 2.63 $\mu\text{g/L}$ by the City Lab. The qualifications provided by FGL combined with this comparison of City Lab to FGL results suggest the FGL TBA results are not considered reliable and consequently have not been used in this Post-Remediation GWQ Report.

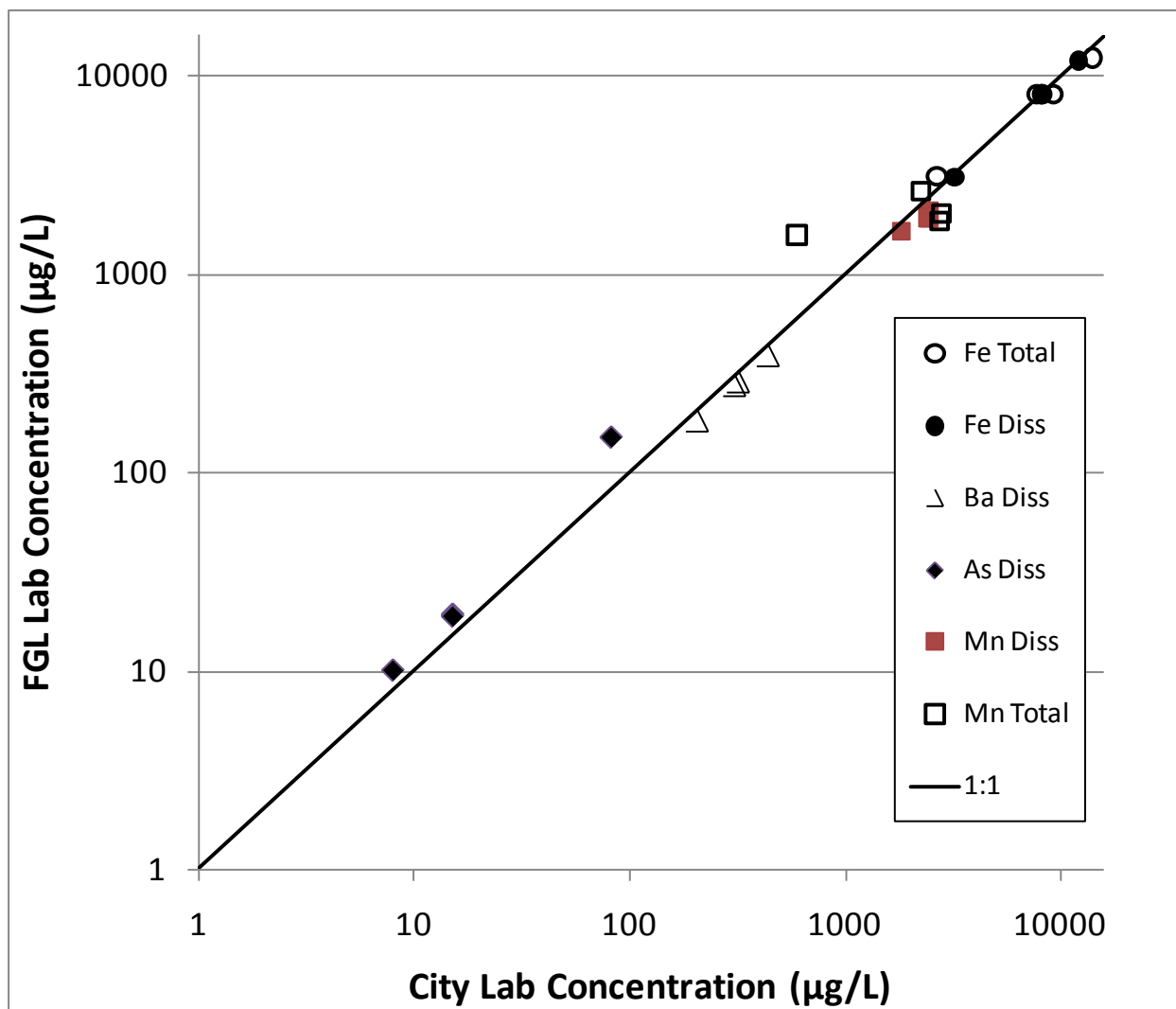


Figure 1. Comparison of analytical results ($\mu\text{g/L}$) for inorganic parameters analyzed by the City Lab (horizontal axis) and FGL (vertical axis) for samples obtained during 3Q and 4Q 2014 monitoring events.

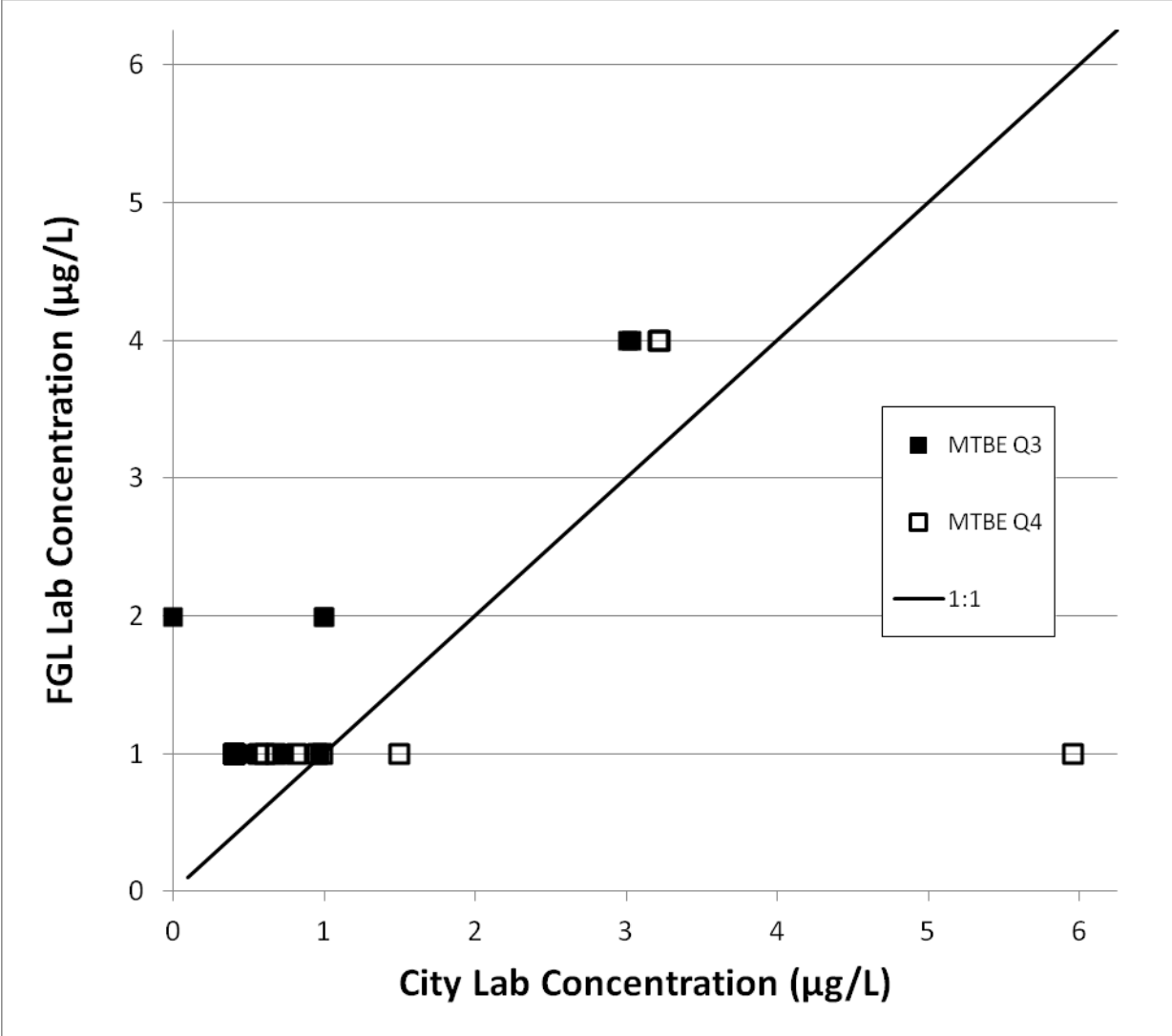


Figure 2. Comparison of analytical results for MTBE concentrations (µg/L) analyzed by the City Lab (horizontal axis) and FGL (vertical axis) for samples obtained during 3Q and 4Q 2014 monitoring events.

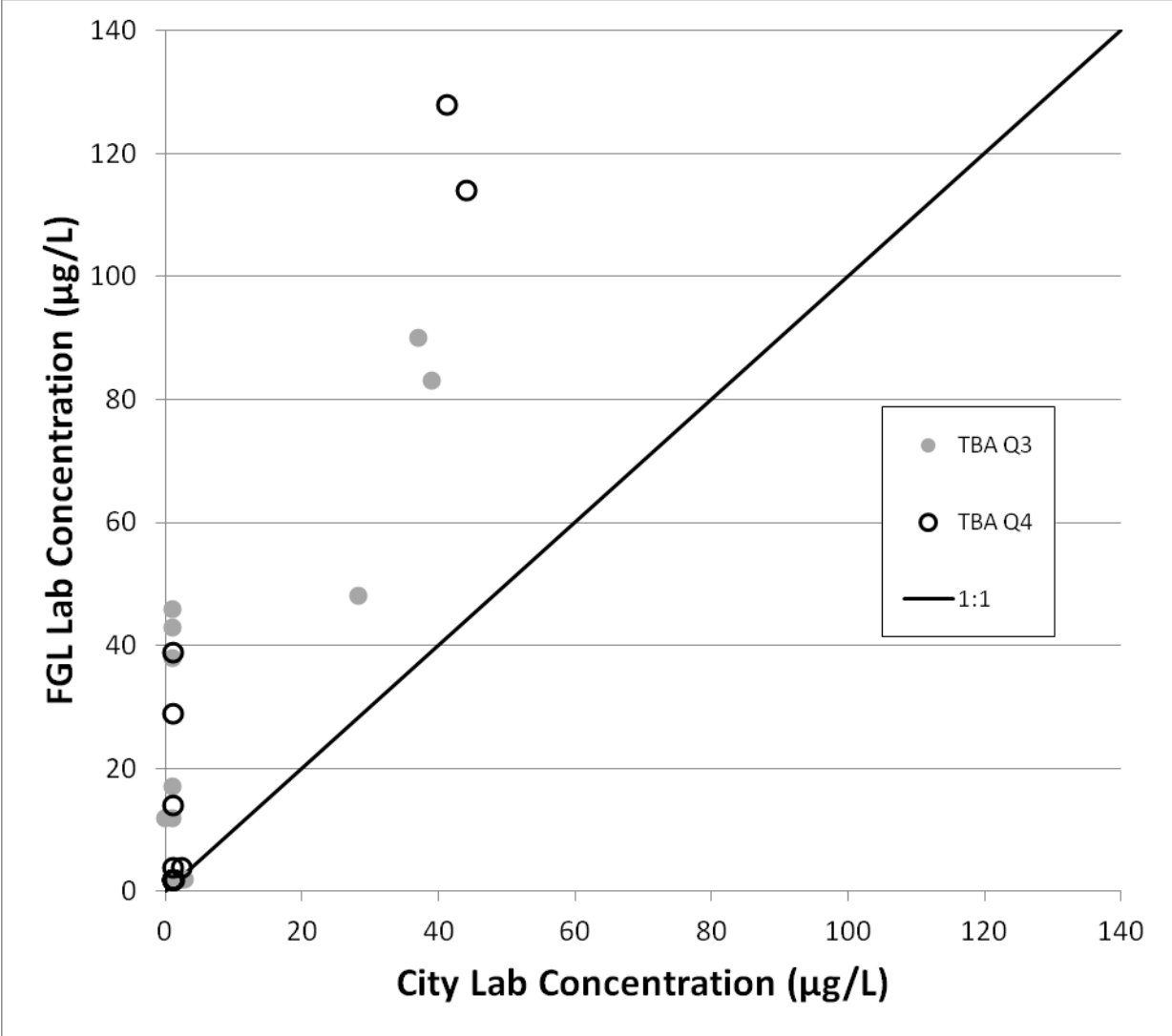


Figure 3. Comparison of analytical results for TBA concentrations (µg/L) analyzed by the City Lab (horizontal axis) and (amended) FGL (vertical axis) for samples obtained during 3Q and 4Q 2014 monitoring events.

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APPENDIX C

Analytical Data for City Monitoring Wells

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Table C.1 GWQ data: 2Q 2011, 2Q 2013 and 3Q 2013

Monitoring Period:		2011-04-11		2013-05-13			2013-06-28					2013-08-14		
Monitoring Well:		DB-1	DB-2	DB-1	DB-2a	DB-2b	MW-1 Port 6	MW-1 Port 2	MW-1 Port 3	MW-1 Port 4	MW-1 Port 5	DB-1	DB-2a	DB-2b
Port:		-	-	-	-	-	-	-	-	-	-	-	-	-
Depth (ft BGS):		34-57	40-70	34-57	8-26	40-70	14	20	24.5	30	37.5	34-57	8-26	40-70
Water Level (ft BGS):														
Lab Parameter	Units													
Arsenic ¹	ug/L	<2.0	<2.0	8.3	13.5	157	8.3	7.6	10	9.5	2.4	-	-	-
Barium ¹	ug/L	90	290	202	291	468	341	230	183	189	160	-	-	-
Calcium ¹	mg/L	160	172	171	172	122	220	261	246	234	187	-	-	-
Iron ¹	ug/L	4110	7830	4550	9110	17000	2360	3040	2160	8430	3070	-	-	-
Magnesium ¹	mg/L	67.6	62.1	63.8	65.2	82.2	65.5	72.5	69.9	77	48.6	-	-	-
Manganese ¹	ug/L	1660	2610	2070	2720	3460	9380	12000	11600	8090	1730	-	-	-
Potassium ¹	mg/L	-	-	5.49	7.44	5.11	6.24	9.66	11.9	19.6	12.4	-	-	-
Silica ¹	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium ¹	mg/L	233	263	267	258	473	460	531	515	586	339	-	-	-
Strontium ¹	ug/L	-	-	997	969	890	993	1290	1330	1340	1290	-	-	-
Boron - Total ¹	mg/L	-	<0.05	0.23	0.196	0.555	0.423	0.403	0.418	0.477	0.466	-	-	-
Boron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron - Total ¹	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese - Total ¹	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromide ¹	mg/L	-	-	1.4	3.8	2.3	4.3	4.7	6	6	4.6	-	-	-
Chloride ¹	mg/L	545	555	603	637	695	1200	1390	1320	1540	998	-	-	-
Nitrate Nitrogen ¹	mg/L	<0.05	0.14	<0.4	<0.4	<1.0	-	-	-	-	-	-	-	-
Total Dissolved Solids ¹	mg/L	1540	1640	-	-	-	2070	2460	2540	2420	1680	-	-	-
Sulfate ¹	mg/L	203	212	202	209	43.9	133	220	243	388	132	-	-	-
tert-Butanol ¹	ug/L	<2	11.2	<100	<100	<100	<2	<2	<2	<2	<2	<2	<2	21
tert-Butanol ²	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-Butyl Ether ¹	ug/L	<1	4.21	<0.5	3.1	<0.5	<1	<1	<1	<1	<1	-	-	-
Dissolved Organic Carbon ¹	mg/L	-	-	3.5	4.1	20.8	17.8	19.7	20.5	25.7	11.6	-	-	-
TCE ¹	ug/L	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Methane ¹	ppm	-	-	0.013	0.012	0.640	0.19	0.064	0.037	0.0046	0.0077	-	-	-
Lab Alkalinity ¹	mg/L	-	-	347	316	841	534	519	466	444	338	-	-	-
δ ¹⁸ O ¹	‰ VSMOW	-	-	-	-	-	-	-	-	-	-	-	-	-
δ ² H ¹	‰ VSMOW	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Parameters	Units													
Temperature ³	°C	--	--	22.45	22.07	22.19	--	--	--	--	--	--	--	--
pH ³	pH Units	7.7	7.09	6.67	6.67	6.76	--	--	--	--	--	--	--	--
EC ³	µS/cm	2710	2650	2578	3286	2621	--	--	--	--	--	--	--	--
Turbidity ³	NTU	42	55	13	2	0	--	--	--	--	--	--	--	--
Potentiometric DO ³	mg/L	--	--	1.76	0.39	0.39	--	--	--	--	--	--	--	--
ORP ³	mV	--	--	-41.4	-130.2	-139.7	--	--	--	--	--	--	--	--
Water Removed ³	mL	--	--	486425	45425	316082	--	--	--	--	--	--	--	--
Colorimetric DO ³	mg/L	--	--	0.6	0.5	2	--	--	--	--	--	--	--	--
Colorimetric Iron ³	mg/L	--	--	3.4	4.2	3	--	--	--	--	--	--	--	--
Colorimetric Sulfide ³	mg/L	--	--	0	0	0	--	--	--	--	--	--	--	--
Field Alkalinity ²	mg/L	--	--	NV	NV	NV	--	--	--	--	--	--	--	--

Notes - 1 parameter analyzed by contracted lab; 2 parameter analyzed by City Lab; 3 parameters analyzed in the field by Blain Tech Services Inc.

4 charge balance calculated using laboratory Ca, Mg, Na, K, SO₄, Cl and field-measured alkalinity; (-) indicates no result available;

-- indicates sample not analyzed for this analyte

Table C.2 GWQ data: 1Q January 2014

Monitoring Period: Monitoring Well: Port: Depth (ft BGS):		2014-01-14 to 2014-01-16									
		MW-1 Port 6	MW-1 Port 2	MW-1 Port 3	MW-1 Port 4	MW-1 Port 5	MW-2 Port 4	MW-2 Port 6	MW-3 Port 4	MW-3 Port 5	MW-3 Port 6
Water Level (ft BGS):		13.55	13.49	13.5	14.1	13.52	37.3	37.2	34.81	34.85	34.87
Lab Parameter	Units										
Arsenic ¹	ug/L	33	26	30	23	16	3	5	9	6	10
Barium ¹	ug/L	466	236	260	115	135	62.2	30.7	180	65.1	104
Calcium ¹	mg/L	236	228	259	209	243	234	81	155	123	99
Iron ¹	ug/L	4330	5870	5620	3530	3470	340	1140	4990	2590	2100
Magnesium ¹	mg/L	74	63	73	70	55	70	28	51	49	30
Manganese ¹	ug/L	10300	12700	16300	7760	1580	1470	170	1300	850	390
Potassium ¹	mg/L	5	5	5	12	9	4	21	9	16	13
Silica ¹	mg/L	-	-	-	-	-	-	-	-	-	-
Sodium ¹	mg/L	495	502	467	648	409	393	512	573	567	374
Strontium ¹	ug/L	953	1340	1040	1180	1870	1210	999	993	925	790
Boron - Total ¹	mg/L	0.4	0.4	0.4	0.7	0.7	0.4	1.3	0.4	0.7	0.9
Boron	mg/L	-	-	-	-	-	-	-	-	-	-
Iron - Total ¹	mg/L	-	-	-	-	-	-	-	-	-	-
Manganese - Total ¹	mg/L	-	-	-	-	-	-	-	-	-	-
Bromide ¹	mg/L	2.34	2.59	2.34	3.00	1.77	1.59	2.13	1.18	1.91	1.62
Chloride ¹	mg/L	910	1040	1000	1180	620	680	700	600	720	550
Nitrate Nitrogen ¹	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Total Dissolved Solids ¹	mg/L	2080	2240	2210	2520	1860	1800	1520	1340	1870	1230
Sulfate ¹	mg/L	104	156	173	122	280	330	270	300	290	146
tert-Butanol ¹	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	5	5
tert-Butanol ²	ug/L	-	-	-	-	-	-	-	-	-	-
Methyl tert-Butyl Ether ¹	ug/L	<1	<1	<1	<1	<1	<1	<1	1	2	<1
Dissolved Organic Carbon ¹	mg/L	3.2	3.5	2.2	8.6	7.3	1.3	5.5	2.5	1.4	1.9
TCE ¹	ug/L	-	-	-	-	-	-	-	-	-	-
Methane ¹	ppm	0.18574	0.03098	0.01522	0.16942	0.33212	0.0011	0.0042	0.00232	0.01858	0.00517
Lab Alkalinity ¹	mg/L	-	-	-	-	-	-	-	-	-	-
δ ¹⁸ O ¹	‰ VSMOW	-	-	-	-	-	-	-	-	-	-
δ ² H ¹	‰ VSMOW	-	-	-	-	-	-	-	-	-	-
Field Parameters	Units										
Temperature ³	°C	22.2	20.2	20.9	17.4	21.5	20.3	17.8	22.3	18.5	19.6
pH ³	pH Units	6.48	6.57	6.61	6.79	6.61	7.00	7.96	6.83	6.74	6.57
EC ³	µS/cm	3640	3815	3791	4190	3057	19.82	2816	3269	3277	2395
Turbidity ³	NTU	4	3	2	34	9	87	88	65	103	89
Potentiometric DO ³	mg/L	0.6	0.4	0.7	0.3	0.6	4.2	4.4	5.0	5.1	2.9
ORP ³	mV	-167	-230	-229	-229	-240	38	-127	-71	-93	-22
Water Removed ³	mL	3000	3000	3000	600	5250	1150	4300	1404	3450	3160
Colorimetric DO ³	mg/L	1	1	1	4	1	6	6	5	4	3
Colorimetric Iron ³	mg/L	3.2	9.4	9.6	7.8	4.8	0	0	0	0	0
Colorimetric Sulfide ³	mg/L	0	0	0	0	0	0	0	0	0	0
Field Alkalinity ³	mg/L	380	380	380	340	400	200	160	220	770	385

Notes - 1 parameter analyzed by contracted lab; 2 parameter analyzed by City Lab; 3 parameters analyzed in the field by Blain Tech Services Inc.

4 charge balance calculated using laboratory Ca, Mg, Na, K, SO₄, Cl and field-measured alkalinity; (-) indicates no result available;

Table C.3 GWQ data: 1Q February 2014

Monitoring Period:		2014-02-10 to 2014-02-13													
Monitoring Well:		MW-1	MW-1	MW-1	MW-1	MW-1	MW-2	MW-2	MW-3	MW-3	DB-1	DB-2	DB-2a	DB-2b	
Port:		Port 6	Port 2	Port 3	Port 4	Port 5	Port 4	Port 6	Port 4	Port 5	Port 6	-	-	-	-
Depth (ft BGS):		14	20	24.5	30	37.5	50.1	75.1	44.1	59.1	67.1	34-57	40-70	8-26	40-70
Water Level (ft BGS):		13.55	13.55	13.65	14.95	16.3	32.8	32.95	30.38	30.52	30.62	11.21	19.75	19.56	19.7
Lab Parameter	Units														
Arsenic ¹	ug/L	40	37	40	28	20	12	4	8	7	<2	8	17	61	15
Barium ¹	ug/L	418	217	261	104	120	65.2	20.1	50	99	213	176	298	230	278
Calcium ¹	mg/L	231	228	253	211	235	237	95	174	181	82	183	190	115	195
Iron ¹	ug/L	4520	5980	5450	4030	3480	710	150	380	1410	100	3230	8540	5490	9070
Magnesium ¹	mg/L	72	63	71	68	50	70	27	57	65	23	68	70	44	73
Manganese ¹	ug/L	10100	12900	15800	8350	1460	1780	190	1560	1490	390	1910	2600	1470	2620
Potassium ¹	mg/L	4	4	4	10	7	2	13	5	9	7	6	9	31	9
Silica ¹	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium ¹	mg/L	481	521	493	589	391	375	401	460	415	287	315	309	239	316
Strontium ¹	ug/L	923	1470	1100	1180	1750	1110	1100	865	1010	732	924	935	609	951
Boron - Total ¹	mg/L	0.4	0.4	0.4	0.7	0.6	0.3	1.2	0.3	0.3	0.7	0.2	0.2	0.3	0.2
Boron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron - Total ¹	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese - Total ¹	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromide ¹	mg/L	2.08	2.26	2.32	2.76	1.41	1.38	1.56	1.65	1.53	1.17	1.02	1.02	0.64	1.13
Chloride ¹	mg/L	890	950	950	1090	590	620	520	670	650	403	570	600	360	590
Nitrate Nitrogen ¹	mg/L	<0.1	0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Dissolved Solids ¹	mg/L	2080	2250	2240	2440	1800	1860	1440	1860	1750	1020	1520	1560	1170	1600
Sulfate ¹	mg/L	103	152	181	133	290	310	280	310	205	101	207	206	129	208
tert-Butanol ¹	ug/L	<2	<2	<2	13	<2	<2	5	<2	5	3	<2	<2	<2	33
tert-Butanol ²	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-Butyl Ether ¹	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	4	<1	4
Dissolved Organic Carbon ¹	mg/L	2.8	2.7	2.3	7.6	7.9	2.1	7.1	1.2	1.3	8.4	0.9	1.1	2.4	1.1
TCE ¹	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methane ¹	ppm	0.23981	0.03452	0.02084	0.15776	0.25314	0.00048	0.00275	0.00362	0.01177	0.00497	0.0065	0.00566	0.00934	0.00471
Lab Alkalinity ¹	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
δ ¹⁸ O ¹	‰ VSMOW	-6.2	-6	-6	-6.1	-5.4	-5.5	-5.8	-5.8	-5.7	-5.5	-4.9	-4.8	-5.5	-4.9
δ ² H ¹	‰ VSMOW	-48	-46	-47	-47	-39	-43	-39	-43	-44	-37	-37	-36	-37	-36
Field Parameters	Units														
Temperature ³	°C	220.0	21.2	21.9	20.3	22.1	16.2	26.5	20.2	23.4	24.9	21.8	21.1	22.3	21.2
pH ³	pH Units	6.70	6.80	6.70	6.50	6.80	7.00	7.70	7.40	7.20	7.20	6.77	6.86	6.80	6.85
EC ³	µS/cm	3543	3676	3675	4002	2953	2797	2663	3092	2921	2070	2704	2754	2088	2719
Turbidity ³	NTU	3	2	1	39	8	44	9	>1000	688	51	2	2	3	0.55
Potentiometric DO ³	mg/L	0.4	0.8	0.5	1.0	0.4	6.1	4.1	7.3	3.5	4.6	1.0	0.3	0.3	0.5
ORP ³	mV	-117	-181	-142	-209	-164	-150	-167	-101	-85	-124	-264	-166	-194	-114
Water Removed ³	mL	3000	3000	3000	800	3000	2300	2350	1400	1300	6700	484533	533743	51103	317975
Colorimetric DO ³	mg/L	1	2	1	2.5	0.8	8	5	8	6	6	1	1	0.5	1
Colorimetric Iron ³	mg/L		3	3	2.5	3.5	1.5	0	0.8	2	0	2.6	1.2	0.8	2
Colorimetric Sulfide ³	mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Alkalinity ³	mg/L	770	380	450	770	770	385	385	385	770	385	616	577.5	962.5	731.5

Notes - 1 parameter analyzed by contracted lab; 2 parameter analyzed by City Lab; 3 parameters analyzed in the field by Blain Tech Services Inc.

4 charge balance calculated using laboratory Ca, Mg, Na, K, SO₄, Cl and field-measured alkalinity; (-) indicates no result available;

Table C.4 GWQ data: 2Q April 2014

Monitoring Period: Monitoring Well: Port: Depth (ft BGS): Water Level (ft BGS):		2014-04-14 to 2014-04-17																
		MW-1 Port 6	MW-1 Port 2	MW-1 Port 3	MW-1 Port 4	MW-1 Port 5	MW-2 Port 3	MW-2 Port 4	MW-2 Port 5	MW-2 Port 6	MW-3 Port 3	MW-3 Port 4	MW-3 Port 5	MW-3 Port 6	DB-1	DB-2	DB-2a	DB-2b
		14	20	24.5	30	37.5	36.1	50.1	60.1	75.1	36.1	44.1	59.1	67.1	34-57	40-70	8-26	40-70
		13.27	13.29	13.25	13.25	13.25	29.16	29.1	29.23	29.06	26.53	26.33	26.3	26.27	11.31	19.85	19.58	19.79
Lab Parameter	Units																	
Arsenic ¹	ug/L	35	31	35	24	20	5	14	68	6	9	6	8	3	8	16	117	16
Barium ¹	ug/L	449	261	324	133	128	64.8	64.4	41.5	28.4	55.9	46.6	64.0	201	193	317	258	306
Calcium ¹	mg/L	216	227	232	201	211	196	207	118	124	187	172	171	99	168	178	115	177
Iron ¹	ug/L	3780	5730	4860	3910	3420	750	190	150	210	950	200	1180	100	3010	7950	8410	8030
Magnesium ¹	mg/L	67	65	67	64	45	45	65	28	31	69	56	60	26	62	68	59	66
Manganese ¹	ug/L	9150	12800	14400	8450	1260	1200	1540	670	308	1750	1500	1580	500	1700	2400	2200	2320
Potassium ¹	mg/L	3	3	3	7	6	3	2	4	11	9	4	7	7	6	9	21	9
Silica ¹	mg/L	42	40	38	32	23	23	27	29	15	25	21	26	20	22	25	34	25
Sodium ¹	mg/L	424	452	416	539	330	332	336	781	441	384	413	426	292	284	293	368	281
Strontium ¹	ug/L	878	1390	978	1110	1620	1160	1060	2100	1490	965	794	877	834	852	896	649	863
Boron - Total ¹	mg/L	0.4	0.4	0.4	0.7	0.6	0.3	0.3	0.8	1.1	0.4	0.3	0.3	0.7	0.1	0.1	0.2	0.1
Boron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron - Total ¹	mg/L	3.91	6.17	5.44	5.03	3.65	1.05	2.53	6.58	2.92	137	5.68	19.5	15.9	1.77	4.55	4.18	4.43
Manganese - Total ¹	mg/L	9.53	13.8	16.2	9.13	1.33	1.11	1.54	0.75	0.35	5.92	1.49	1.70	0.75	0.98	1.34	1.06	1.28
Bromide ¹	mg/L	2.36	2.56	2.52	2.74	1.63	1.81	1.54	1.59	1.60	1.63	1.67	1.61	1.15	1.64	1.75	1.70	1.75
Chloride ¹	mg/L	890	940	930	1000	560	680	620	600	490	670	660	640	409	550	610	470	610
Nitrate Nitrogen ¹	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.3	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1
Total Dissolved Solids ¹	mg/L	2170	2320	2340	2410	1810	1790	1780	2870	1680	1900	1880	1850	1170	1590	1650	1480	1620
Sulfate ¹	mg/L	107	157	180	167	237	244	245	780	345	243	251	197	43.9	213	213	74.3	214
tert-Butanol ¹	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	6	8	26	<2	12	<2	23
tert-Butanol ²	ug/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-Butyl Ether ¹	ug/L	<1	<1	<1	<1	<1	<1	1	1	<1	<1	<1	1	<1	2	4	<1	4
Dissolved Organic Carbon ¹	mg/L	1.7	1.5	1.4	4.6	5.0	1.1	1.2	22.3	9.1	1.4	0.7	0.7	27.2	0.8	0.9	3.1	0.9
TCE ¹	ug/L	-	-	-	-	-	<0.5	1.8	2.5	3.8	<0.5	3.6	4.1	1.7	-	-	-	-
Methane ¹	ppm	0.22423	0.04869	0.03195	0.15949	0.31389	0.00045	<0.0002	0.00124	0.00726	0.02583	<0.0002	0.01207	0.04135	0.0099	0.0079	0.1168	0.0082
Lab Alkalinity ¹	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
δ ¹⁸ O ¹	‰ VSMOW	-6.0	-6.0	-6.1	-6.1	-5.4	-5.8	-5.4	-5.5	-6.0	-5.7	-5.6	-5.6	-5.6	-5.0	-4.8	-5.5	-4.9
δ ² H ¹	‰ VSMOW	-49	-47	-46	-47	-38	-44	-43	-43	-40	-43	-44	-44	-39	-37	-36	-38	-36
Field Parameters	Units																	
Temperature ³	°C	21.5	21.2	21.4	21.1	21.6	19.1	16.4	18.8	23.1	15.4	16.5	23.2	24.8	21.7	21.0	21.8	21.1
pH ³	pH Units	6.70	6.70	6.70	6.70	6.80	6.70	7.80	7.70	6.70	8.00	7.50	7.40	6.50	6.60	6.50	6.50	6.60
EC ³	µS/cm	3806	3999	3982	4281	3036	2942	2898	4832	2328	2948	3251	3018	2138	2870	2974	2889	2981
Turbidity ³	NTU	1	1	1	18	1	55	>1000	5	6	83	>1000	>1000	839	1	2	5	1
Potentiometric DO ³	mg/L	0.6	0.6	0.5	1.0	0.7	1.1	9.1	8.3	7.4	10.7	10.8	6.2	4.9	1.3	0.6	0.7	0.6
ORP ³	mV	-149	-162	-133	-205	-200	-90	-77	-11	104	-148	-139	-164	-124	-91	-130	-122	-113
Water Removed ³	mL	3400	3400	3400	1800	3400	1200	1400	1550	1700	400	1500	1580	2400	486425	539421	49210	316082
Colorimetric DO ³	mg/L	1	1	1	1	1	5	9	8	7	10	10	6	4	1	1	1	1
Colorimetric Iron ³	mg/L	2	1.6	1.5	1.6	0.8	1	0	0	0	0.6	0	0	0	2.4	1	1	0
Colorimetric Sulfide ³	mg/L	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Field Alkalinity ³	mg/L	1155	1155	777	770	1540	385	770	770	385	385	770	385	385	385	385	770	770

Notes - 1 parameter analyzed by contracted lab; 2 parameter analyzed by City Lab; 3 parameters analyzed in the field by Blain Tech Services Inc.

4 charge balance calculated using laboratory Ca, Mg, Na, K, SO₄, Cl and field-measured alkalinity; (-) indicates no result available;

Table C.5 GWQ data: 3Q July 2014

Monitoring Period: Monitoring Well: Port: Depth (ft BGS): Water Level (ft BGS):		2014-07-21 to 2014-07-24																		
		MW-1 Port 6	MW-1 Port 2	MW-1 Port 3	MW-1 Port 4	MW-1 Port 5	MW-2 Port 2	MW-2 Port 3	MW-2 Port 4	MW-2 Port 5	MW-2 Port 6	MW-3 Port 2	MW-3 Port 3	MW-3 Port 4	MW-3 Port 5	MW-3 Port 6	DB-1	DB-2	DB-2a	DB-2b
Lab Parameter	Units	13.62	13.65	13.28	13.65	13.52	26.15	26.23	26.08	26.12	26.15	22.96	23.01	22.93	22.93	22.92	12.31	20.92	20.89	20.88
Arsenic ¹	ug/L	37	33	37	21	19	13	6	8	54	9	6	7	5	11	17	8	17	84	17
Barium ¹	ug/L	459	280	371	139	124	76.5	88.8	84.7	95.5	30.3	43.4	55.3	56.9	76.7	255	206	320	435	315
Calcium ¹	mg/L	233	263	264	205	215	164	208	214	115	153	204	197	209	213	101	191	193	125	190
Iron ¹	ug/L	3640	6090	4870	3490	3990	120	1130	620	930	2210	150	2030	1350	2470	690	3440	8560	12800	8380
Magnesium ¹	mg/L	69	71	71	64	43	44	50	78	20	33	60	68	66	68	26	68	70	78	68
Manganese ¹	ug/L	9540	14100	15200	8400	1190	0.8	1480	1820	530	450	2.5	1880	1760	2070	530	1930	2530	2570	2440
Potassium ¹	mg/L	4	4	3	7	6	3	2	2	4	10	3	4	3	5	7	7	9	7	9
Silica ¹	mg/L	47	43	40	33	24	18	26	32	31	17	31	25	22	24	20	25	27	47	26
Sodium ¹	mg/L	427	440	421	612	321	331	303	308	607	433	376	349	<2	318	248	294	288	498	280
Strontium ¹	ug/L	875	1380	978	1130	1540	529	1530	949	5900	1680	772	791	891	959	809	922	911	707	887
Boron - Total ¹	mg/L	0.5	0.4	0.4	0.5	0.6	0.2	0.2	0.2	0.5	1.3	0.4	0.3	0.3	0.4	0.7	0.2	0.2	0.5	0.2
Boron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron - Total ¹	mg/L	3.84	6.01	4.92	5.83	4.17	0.46	1.35	42.1	2.01	4.74	0.3	100	81.2	424	250	3.51	8.57	12.7	8.36
Manganese - Total ¹	mg/L	9.72	13.7	15.3	8.78	1.19	0.01	1.38	2	0.55	0.49	<0.01	3.2	3.1	8.88	4.66	1.89	2.53	2.56	2.43
Bromide ¹	mg/L	2.56	2.75	2.71	2.91	1.66	1.86	1.85	1.52	1.67	1.68	1.77	1.78	1.73	1.71	1.36	1.81	1.88	2.82	1.88
Chloride ¹	mg/L	860	930	910	970	510	630	650	610	560	460	640	640	620	610	422	580	610	670	610
Nitrate Nitrogen ¹	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1	3.4	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Dissolved Solids ¹	mg/L	2300	2530	2630	2580	1810	1770	1870	1810	2450	1650	1950	1920	1720	1760	1030	1640	1730	1880	1710
Sulfate ¹	mg/L	111	168	192	172	203	282	277	261	543	348	263	242	232	223	16.4	186	178	4.5	180
tert-Butanol ¹	ug/L	<2	<2	<2	38	12	<2	<2	<2	48	43	<2	17	<2	12	46	<2	83	<2	90
tert-Butanol ²	ug/L	<1	<1	<1	<1	<1	<1	2.9	2.6	28	<1	<1	<1	<1	<1	<1	<1	39	<1	37
Methyl tert-Butyl Ether ¹	ug/L	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	2	2	<1	<1	4	<1	4
Dissolved Organic Carbon ¹	mg/L	2.1	1.7	1.6	4.3	5.2	0.6	1.5	0.9	8.1	3.6	0.9	1.6	1.6	1	11.1	0.7	0.7	4.6	0.8
TCE ¹	ug/L	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
Methane ¹	ppm	0.22156	0.06030	0.03306	0.15301	0.37157	<0.00022	0.00023	0.01261	0.00134	0.01256	0.00483	0.02009	0.02195	0.07083	0.27977	0.0080	0.0063	1.6044	0.0077
Lab Alkalinity ¹	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
δ ¹⁸ O ¹	‰ VSMOW	-6.2	-5.9	-6.0	-6.0	-5.4	-5.9	-5.7	-5.6	-5.4	-5.8	-5.8	-5.7	-5.6	-5.6	-5.5	-4.9	-4.8	-5.5	-4.8
δ ² H ¹	‰ VSMOW	-48	-47	-47	-47	-39	-44	-44	-44	-43	-39	-43	-43	-43	-44	-38	-37	-36	-39	-36
Field Parameters	Units																			
Temperature ³	°C	25.6	23.9	23.7	23.9	25.0	24.2	24.9	24.8	25.1	24.8	24.6	24.1	25.0	25.3	25.1	21.9	21.3	22.6	21.4
pH ³	pH Units	6.59	6.59	6.60	6.67	6.68	7.04	6.76	6.87	7.20	6.31	6.53	6.62	6.77	7.01	7.20	6.47	6.58	6.44	6.58
EC ³	µS/cm	3633	3833	3808	4160	2860	2755	2940	3020	3764	2651	3084	3012	3015	2814	1958	2732	2804	3402	2808
Turbidity ³	NTU	2	1	1	12	2	138	4	>1000	10	3	4	>1000	>1000	>1000	22	1	1	1	2
Potentiometric DO ³	mg/L	0.3	0.2	0.2	0.7	0.5	3.3	0.4	0.2	2.2	1.4	2.9	0.6	0.2	0.3	0.7	0.1	0.1	0.1	0.1
ORP ³	mV	-192	-191	-176	-268	-255	357	-36	-193	-98	260	295	-103	-179	-301	-202	-91	-118	-132	-131
Water Removed ³	mL	3400	2800	2800	1600	3400	900	900	1200	900	1200	900	900	1200	1200	1200	476962	528065	41640	310404
Colorimetric DO ³	mg/L	1	1	1	1	1	3	1	1	2	1	3	1	1	1	1	1	1	1	1
Colorimetric Iron ³	mg/L	2.8	1.8	1.8	2.6	2.6	0	0.8	1	1	2.2	0	1.2	2.6	0	1.2	1.6	2	2.2	2.6
Colorimetric Sulfide ³	mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Alkalinity ²	mg/L	505	432	411	620	440	356	205	279	310	336	335	410	365	341	354	312	308	686	285

Notes - 1 parameter analyzed by contracted lab; 2 parameter analyzed by City Lab; 3 parameters analyzed in the field by Blain Tech Services Inc.

4 charge balance calculated using laboratory Ca, Mg, Na, K, SO₄, Cl and field-measured alkalinity; (-) indicates no result available;

Table C.6 GWQ data: 4Q October 2014

Monitoring Period: Monitoring Well: Port: Depth (ft BGS):		2014-10-20 to 2014-10-22																			
		MW-1 Port 6	MW-1 Port 2	MW-1 Port 3	MW-1 Port 4	MW-1 Port 5	MW-2 Port 2	MW-2 Port 3	MW-2 Port 4	MW-2 Port 5	MW-2 Port 6	MW-3 Port 1	MW-3 Port 2	MW-3 Port 3	MW-3 Port 4	MW-3 Port 5	MW-3 Port 6	DB-1	DB-2	DB-2a	DB-2b
Water Level (ft BGS):		13.76	13.81	13.9	15.02	16.82	23.95	24.01	23.99	24.01	24.02	21.15	21.16	21.12	21.11	21.14	21.24	12.1	20.75	20.59	20.73
Lab Parameter	Units																				
Arsenic ¹	ug/L	29	30	30	18	12	6	5	7	24	8	12	5	4	4	6	11	8	15	82	15
Barium ¹	ug/L	483	301	416	183	119	87.9	134	83.7	113	28.7	42.8	54.9	53.1	64.7	70.7	180	207	320	438	306
Calcium ¹	mg/L	218	231	241	236	192	195	228	211	128	178	157	208	185	210	206	87	175	183	117	184
Iron ¹	ug/L	3680	5140	4100	3570	3620	110	870	470	580	2190	110	120	1760	890	2080	1390	3240	8250	12200	8290
Magnesium ¹	mg/L	67	65	68	68	40	47	52	72	25	36	55	65	66	68	68	22	65	69	76	69
Manganese ¹	ug/L	9130	12900	14600	10600	910	<0.5	1710	1750	620	570	<0.5	1.9	1820	1750	1820	460	1850	2470	2490	2440
Potassium ¹	mg/L	3	3	3	5	5	2	2	1	3	9	4	2	3	3	3	5	6	9	7	9
Silica ¹	mg/L	47	42	41	37	23	16	28	29	31	19	33	33	24	21	24	20	24	27	47	26
Sodium ¹	mg/L	417	434	421	471	304	376	337	311	526	431	371	343	334	339	326	251	291	291	514	290
Strontium ¹	ug/L	849	1420	1030	1110	1450	624	1320	974	7380	1940	652	825	763	913	956	726	885	898	696	889
Boron - Total ¹	mg/L	0.5	0.5	0.5	0.4	0.5	0.2	0.3	0.3	0.4	1.4	0.4	0.3	0.3	0.3	0.3	0.6	0.3	0.2	0.6	0.2
Boron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron - Total ¹	mg/L	3.81	5.43	4.65	5.14	4.09	0.13	0.91	0.5	22.8	4.1	0.11	0.12	1.76	0.94	2.29	177	2.68	9.21	13.9	7.66
Manganese - Total ¹	mg/L	9.38	14.8	3.47	11	0.99	<0.01	1.85	1.64	1.16	0.372	<0.01	<0.01	1.82	1.84	1.96	3.38	0.6	2.71	2.77	2.22
Bromide ¹	mg/L	2.65	1.94	2.84	2.17	1.21	1.83	1.37	2.09	2.01	1.66	1.38	2.04	1.76	1.82	1.7	0.9	2.14	2.12	2.93	2.07
Chloride ¹	mg/L	850	910	640	740	370	640	490	650	640	470	<1	720	720	650	640	268	620	630	59	640
Nitrate Nitrogen ¹	mg/L	0.1	0.1	0.2	0.1	0.1	0.9	<0.1	<0.1	0.2	0.2	0.9	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Dissolved Solids ¹	mg/L	2140	2290	2290	2310	1600	1760	1860	1820	1900	1890	1770	1810	1770	1760	1750	990	1710	1640	1930	1650
Sulfate ¹	mg/L	100	156	179	113	128	250	173	250	280	510	340	300	290	250	250	36	213	211	7	210
tert-Butanol ¹	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
tert-Butanol ²	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	2.26	5.95	<1	<1	<1	<1	<1	<1	1.23	41.2	<1	44.1
Methyl tert-Butyl Ether ¹	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	1	<1	1	4	<1	4
Dissolved Organic Carbon ¹	mg/L	2.2	1.8	1.5	2.8	3.6	0.8	0.9	0.8	3.9	11.8	1.1	1	0.9	0.9	0.8	1.5	0.8	0.8	4.6	0.9
TCE ¹	ug/L	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
Methane ¹	ppm	0.42339	0.09885	0.04721	0.14765	0.38551	0.00026	0.00129	0.02628	0.00689	0.00486	<0.00022	<0.00022	0.01609	0.01760	0.01848	7.05189	0.00940	0.01482	2.49858	0.01583
Lab Alkalinity ¹	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
δ ¹⁸ O ¹	‰ VSMOW	-6.1	-6.0	-5.9	-6.0	-5.3	-5.6	-5.8	-5.7	-5.6	-5.8	-5.6	-5.6	-5.6	-5.6	-5.5	-5.5	-5.0	-4.8	-5.6	-4.8
δ ² H ¹	‰ VSMOW	-47	-46	-45	-46	-37	-43	-44	-43	-42	-38	-41	-42	-42	-43	-42	-37	-36	-35	-38	-35
Field Parameters	Units																				
Temperature ³	°C	25.6	24.1	23.0	21.2	22.2	25.2	25.2	23.3	22.8	25.4	25.3	25.6	25.1	24.2	24.1	24.9	22.0	21.3	23.9	21.2
pH ³	pH Units	6.75	6.78	6.77	6.76	6.79	7.15	6.84	6.80	7.10	6.73	7.17	6.85	6.84	6.84	6.88	7.45	6.67	6.80	6.66	6.77
EC ³	µS/cm	3781	3854	3890	4029	2789	3026	3003	3059	3355	2928	2922	3107	3034	3012	2979	1831	2782	2876	3479	2875
Turbidity ³	NTU	3	4	3	7	3	2	5	8	215	24	2	2	3	2	5	>1000	4	3	7	4
Potentiometric DO ³	mg/L	0.2	0.8	0.2	0.5	0.2	4.0	0.4	0.7	2.4	1.8	3.3	3.7	0.3	0.3	0.2	0.8	0.1	0.1	0.6	0.1
ORP ³	mV	-86	-60	-98	-146	-181	87	24	-47	-128	-208	-14	106	11	18	-28	-63	-38	-75	-98	-76
Water Removed ³	mL	3600	3600	3600	2025	3600	3600	3600	4200	900	900	3600	4200	3600	3600	3600	1200	126.5 gal	141 gal	11 gal	82.5 gal
Colorimetric DO ³	mg/L	0.3	0.7	0.2	0.7	0.4	4	0.5	0.7	4	2	3	4	0.3	0.5	0.3	1	0.2	0.05	0.6	0.1
Colorimetric Iron ³	mg/L	2.6	4.8	4.4	2.8	2.2	0	1.2	0.8	0.8	2.2	0	0	3	1.2	2.4	0	2.4	2.2	3.2	6
Colorimetric Sulfide ³	mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Alkalinity ²	mg/L	511	468	423	468	411	289	243	336	362	294	275	282	324	355	353	304	318	303	729	300

Notes - 1 parameter analyzed by contracted lab; 2 parameter analyzed by City Lab; 3 parameters analyzed in the field by Blain Tech Services Inc.

4 charge balance calculated using laboratory Ca, Mg, Na, K, SO₄, Cl and field-measured alkalinity; (-) indicates no result available;

Table C.7 GWQ data: 1Q January 2015

Monitoring Period: Monitoring Well: Port: Depth (ft BGS): Water Level (ft BGS):	2015-1-26 to 2015-1-29																				
	MW-1	MW-1	MW-1	MW-1	MW-1	MW-2	MW-2	MW-2	MW-2	MW-2	MW-3	MW-3	MW-3	MW-3	MW-3	DB-1	DB-2	DB-2a	DB-2b		
	Port 6	Port 2	Port 3	Port 4	Port 5	Port 2	Port 3	Port 4	Port 5	Port 6	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	-	-	-	-	
	14	20	24.5	30	37.5	30.1	36.1	50.1	60.1	75.1	24.1	30.1	36.1	44.1	59.1	67.1	34.57	40.70	8.26	40.70	
	13.22	13.17	13.19	13.37	13.46	23.04	23.04	23.02	23.05	23.08	15.71	15.7	15.66	15.71	15.67	15.66	10.93	19.53	19.33	19.61	
Lab Parameter	Units																				
Arsenic ¹	ug/L	23.7	26.4	28.8	15.8	9.78	2.80000	3.94	4.20000	10.7	5.84	3.67	3.33	1.72	1.54	4.14	7.56	4.71	11.7	87.8	11.3
Barium ¹	ug/L	425	257	362	166	103	78.8	55.8	83.6	146	28.1	44.2	55.1	45.1	56.4	65.9	147	191	417	314	289
Calcium ¹	mg/L	243	253	277	260	199	166	208	227	157	182	177	196	192	217	212	132	186	203	124	203
Iron ¹	ug/L	3800	4900	3860	4690	3530	<50	<50	317	971	919	<50	<50	2640	1430	2730	569	3780	9650	11000	9570
Magnesium ¹	mg/L	72.3	70.9	71.8	70.9	41.0	44.3	64.6	80.1	34.9	37.2	61.1	62.2	67.4	69.3	67.7	35.9	70.8	78.7	68.7	78.8
Manganese ¹	ug/L	9160	12900	15100	10600	776	1.0	1.7	1750	742	446	<1	<1	1730	1650	1660	385	2010	2720	2340	2590
Potassium ¹	mg/L	3.71	3.47	2.88	5.44	5.05	2.21	2.24	1.60	3.51	7.66	3.15	2.29	2.33	3.17	2.91	11.9	6.03	8.68	17.2	8.69
Silica ¹	mg/L	21.2	19	18.4	17.3	10.6	6.94	14.4	13.9	16.9	8.20	14.5	13.8	9.93	9.27	10.4	62.2	11.0	12.6	16.9	12.5
Sodium ¹	mg/L	468	439	468	523	320	373	371	338	496	451	407	357	339	341	335	240	293	299	354	298
Strontium ¹	ug/L	0.959	1.4	1.05	1.16	1.49	0.617	0.829	1.04	10.6	1.94	0.782	0.844	0.850	0.964	0.985	0.755	0.868	0.923	0.638	0.886
Boron - Total ¹	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Boron	mg/L	0.435	0.398	0.403	0.461	0.555	0.199	0.379	0.322	0.372	1.38	0.368	0.358	0.307	0.288	0.275	0.639	0.212	0.227	0.434	0.211
Iron - Total ¹	mg/L	3.69	5.14	3.73	6.05	3.57	<0.05	1.30	0.319	2.00	2.35	<0.05	<0.05	6.07	3.39	4.56	52.9	3.86	9.81	10.9	9.58
Manganese - Total ¹	mg/L	9.09	13.7	14.4	8.31	0.789	0.00140	1.54	1.71	0.677	0.475	<0.001	0.00151	1.72	1.61	1.70	1.38	2.02	2.49	2.11	2.4
Bromide ¹	mg/L	2.9	3.1	2.9	3.5	1.8	1.9	2.0	1.9	1.9	1.7	1.8	1.8	2.1	2.1	2.00	1.4	1.9	2.1	2.0	2.1
Chloride ¹	mg/L	810	1100	850	940	480	630	680	660	640	420	630	620	660	660	620	350	580	620	490	630
Nitrate Nitrogen ¹	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	1.3	<0.10	<0.10	<0.10	<0.10	0.48	0.19	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total Dissolved Solids ¹	mg/L	2030	2280	2500	2400	1660	1670	1820	1850	1870	1740	1920	1910	1980	2080	2000	1000	1680	1320	1360	1560
Sulfate ¹	mg/L	82	180	170	94	140	250	250	260	250	400	300	280	290	260	260	15	200	190	65	190
tert-Butanol ¹	ug/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	13	<10	<10	<10	<10	<10	<10	<10	63	<10	53
tert-Butanol ²	ug/L	<1	<1	<1	<1	<1	<1	<1	3.13	<1	<1	<1	<1	<1	<1	4.33	4.23	37.5	<1	36.6	
Methyl tert-Butyl Ether ¹	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.56	0.68	<0.50	<0.50	<0.50	<0.50	0.73	1.3	<0.50	1.5	2.9	<0.50	2.7
Methyl tert-Butyl Ether ²	ug/L	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	0.702	0.621	<.4	<.4	0.533	0.714	1.11	<.4	1.223	2.358	<.4	2.308
Dissolved Organic Carbon ¹	mg/L	33	27	37	45	27	5.8	21	22	15	45	20	18	14	24	20	14	19	21	28	15
TPH as Gasoline	ug/L	<50	<50	<50	<50	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCE ¹	ug/L	<0.50	0.84	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	-	-
Methane ¹	ppm	0.139	0.0364	0.0107	0.0332	0.124	<0.001	<0.001	0.00441	0.00308	0.00121	<0.001	<0.001	0.0092	0.0197	0.0	1.99	0.00	0.00776	0.0511	0.00868
Lab Alkalinity ¹	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
δ ¹⁸ O ¹	‰ VSMOW	-6.3	-6.1	-6.1	-6.1	-5.4	-5.7	-5.8	-5.8	-5.8	-5.9	-5.7	-5.8	-5.7	-5.7	-5.7	-5.5	-5	-4.9	-5.4	-4.9
δ ² H ¹	‰ VSMOW	-48	-45	-46	-46	-38	-41	-43	-43	-43	-38	-42	-41	-42	-42	-43	-37	-37	-36	-38	-36
Field Parameters	Units																				
Temperature ³	°C	22.0	21.6	21.8	19.1	20.8	24.3	24.5	22.7	23.9	20.2	23.5	22.9	24.2	24.3	24.1	22.8	21.7	21.1	23.0	21.0
pH ³	pH Units	6.75	6.81	6.76	6.85	6.78	6.75	6.79	6.75	6.81	6.45	6.98	6.68	6.79	6.80	6.80	7.28	6.69	6.75	6.67	6.73
EC ³	µS/cm	3936	4107	4081	4396	2793	3115	3281	3362	3396	3112	3373	3287	3323	3363	3305	2003	3022	2159	2944	3184
Turbidity ³	NTU	4	3	3	8	4	5	5	5	246	5	2	2	266	5	14	84	1	5	7	2
Potentiometric DO ³	mg/L	0.5	0.8	0.8	0.5	0.6	2.8	0.5	0.5	1.4	1.2	3.0	3.3	0.5	0.6	0.8	1.3	0.4	0.3	0.6	0.3
ORP ³	mV	-161	-162	-199	-244	-245	-71	-168	-208	-259	-256	24	23	-281	-285	-34	-302	-50	-63	-80	-83
Water Removed ³	mL	3600	3000	3000	1.125	3600	3000	3000	3000	1050	3000	3000	3600	3600	3600	3600	1200	108 gal	144 gal	13 gal	84 gal
Colorimetric DO ³	mg/L	0.5	1	0.5	0.5	0.5	3	1	0.5	1	1	3	3	1	1	1	1	0.6	0.4	0.7	0.3
Colorimetric Iron ³	mg/L	438	2.2	2.2	2.4	2.8	0	0	0.4	0.4	0	0	0	0	0	0.2	0	3	5.6	4.4	5.2
Colorimetric Sulfide ³	mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Field Alkalinity ³	mg/L	438	408	440	478	385	190	203	361	259	325	261	231	285	295	287	223	296	326	472	294

Notes - 1 parameter analyzed by contracted lab; 2 parameter analyzed by City Lab; 3 parameters analyzed in the field by Blain Tech Services Inc.

4 charge balance calculated using laboratory Ca, Mg, Na, K, SO₄, Cl and field-measured alkalinity; (-) indicates no result available;

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APPENDIX D

Evaluation of Historical Water Levels in MVT Groundwater Monitoring Wells

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APPENDIX D

Evaluation of Historical Water Levels in MVT Groundwater Monitoring Wells: Monitoring the Groundwater Recovery to Pre-GWE Levels and TBA Rebound

Introduction

This Appendix documents the timing and magnitude of the groundwater level recovery since the termination of groundwater extraction (GWE) in the off-terminal portion of the MVT. GWE in the distal off terminal portion of the MTBE/TBA plume ended in December, 2013, since which time groundwater levels beneath these areas have begun to return toward pre-GWE elevations. Those elevations may be influenced by both the GWE wells and natural climate-related variations in recharge. Analytical results from groundwater samples collected in 2014 from monitoring wells across the site have demonstrated that TBA contamination has rebounded in multiple wells and may continue to rebound as groundwater rises through layers of “stranded” contamination in fine-grained sediments within the Mission Valley Aquifer.

Water level data was obtained from the California State Water Quality Control Board Geotracker website: (http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL607392800), from monitoring well boring logs and from selected early project reports (Simon Hydro-Search, 1992; Harding Lawson Associates, 1999). The selected wells are located within the Mission Valley Aquifer (MVA) as defined in previous reports (Geofirma/INTERA, 2011; Sengebusch, et al., 2015); all of these wells lie within the distal off-Terminal portion of the MTBE/TBA plume.

In the following sections we evaluate the water-level decline from the mid-2000s to Q4 2013, followed by water-level recovery during 2014. We then evaluate TBA contamination rebound observed as the water levels recovered.

Groundwater Elevation Trends Since 2002

Figure D.1 is a site aerial photograph showing the location of the monitoring wells and remediation wells used in this study. Figures D-2 through D-12 present groundwater elevation hydrographs for selected wells positioned in the northern and southern portions of the Qualcomm Stadium area. These hydrographs should be viewed simultaneously with Figures 4.1 and 4.2 in the main report. In addition to the hydrographs, the attached figures include the following information, where available:

- a) TBA concentrations where detectable,
- b) Production rates from nearby GWE wells, and
- c) a lithologic log segment from the well log in the interval of the water level change.

The selected monitoring wells shown in following pages of this Appendix are: R-85AS (Fig D.2), R-42AS (Fig D.3), R-42AM (Fig D.4), R-69AS (Fig D.5), R-69AM (Fig D.6), R-80AS (Fig D.7), R-

81AS (Fig D.8), R-21AM (Fig D.9), R-7 (Fig D.10), R-23AM (Fig D.11) and R-28AM (D.11), of which R-28AM and R-23 AM are located south of the San Diego River (SDR). In addition, Figures 4.1 and 4.2 show a number of hydrographs for other KMEP monitoring wells.

The AS monitoring-well water levels are from screens across the water table, while the AM well water levels are from screens in the “middle” zone, which is below the water table but with water levels that are typically nearly equivalent to the AM levels. No deep AD monitoring wells are included in this analysis. The water level elevations on the hydrographs in both this Appendix and in Figures 4.1 and 4.2 were gauged during quarterly monitoring events by Arcadis. In addition, some hydrographs contain a dot which represents the depth of water encountered during drilling of the monitoring wells and obtained from the monitoring-well boring logs. The drilling depth-to-water is not necessarily a stable water elevation but can be an approximation of it. There is a hiatus in water level data between the drilling depth-to-water and the start of monitoring in most of the wells. The GWE graphs on the figures present the production rate (gallons per minute, gpm) in the GWE wells and some of the graphs are a sum of the rates, correlated in time with the water level hydrographs. These data are approximate and were compiled from records contained in quarterly monitoring reports.

Figure 4.1 shows a number of KMEP monitoring wells located northeast of the Qualcomm Stadium including R-7, R-9, R-10, R-11, R-12, R-16, R-18 and R-38AS. Remediation wells near these monitoring wells are RW-2, RW-3A, RW-7A, RW 107, RW-108, RW-8 and RW-9, the last four of which are shown in Figure 2.2. Note that monitoring well R-7 is located on the north end of the MVT tank farm, i.e., on-Terminal area.

Figure 4.2 presents KMEP monitoring wells in the southern area of the Qualcomm Stadium including R-17, R-19, R-20, R-21AS, R-48AS, R69-AS, R-80AS and R-81AS. The remediation wells spatially associated with these wells are shown in Figure 2.3. The hydrograph date ranges vary, depending on when the wells were drilled, but most of the monitoring well water elevation data begins in the early- to mid-2000s and continues through the second quarter of 2014.

Table D-1 presents the water-level elevation maxima and minima for the wells in Figures D-2 through D-12, as well as the amount of recovery in these wells following the cessation of groundwater extraction operations in December 2013. Data for this Table are from quarterly reports summarized in Geotracker and from compilations of quarterly data that precede entry in Geotracker. The most recent data is from 3Q 2014.

These data indicate that the wells with water levels influenced by GWE in both the northern and southern areas of the Qualcomm Stadium had an average elevation of 40 ft amsl prior to the beginning of GWE and an average drawdown during GWE of 11 ft. North of the MVT, R-7 had a mean water level elevation of 69.02 ft amsl and was not influenced by GWE. South of the San Diego River, wells R-23AM and 28AM had a mean of 36 ft amsl, with little or no direct influence from GWE, although groundwater flow in the MVA was reduced by KMEP’s GWE operations and would have had some influence on R-23AM and R-28AM.

Table D-1 Water Level Data through Q3 2014

1	2	3	4	5	6	7	8	9	10	11
Pre GWE				During GWE						
Well ID	Maximum (ft amsl)	Minimum (ft amsl)	Mean (ft amsl)	Overall Maximum (ft amsl) (same as pre GWE)	Overall Minimum (ft amsl) (due to GWE)	Total Maximum Drawdown (ft) (5-6)	Elev. 3Q 2014 (ft amsl)	Recovery based on GWE mean (pre-GWE mean - 3Q elev, ft) (4-8)	Mean - Overall Minimum (ft) (4-6)	Recovery in % ((10-9)/10)*100
R-85AS	NA1	NA1	NA1	39.25	27.87	11.38	39.25	NA1	NA1	NA1
R-42AS	42.40	39.85	40.69	42.40	30.11	12.29	38.91	1.78	10.58	83.16
R-42AM	42.19	39.86	40.68	40.24	28.89	11.35	38.98	1.70	11.79	85.55
R-69AS	40.14	37.87	39.09	40.14	30.94	9.20	38.28	0.81	8.15	90.09
R-69AM	40.37	37.80	39.05	40.37	28.68	11.69	38.32	0.73	10.37	92.96
R-80AS	40.23	38.24	39.22	40.23	31.45	8.78	38.25	0.97	7.77	87.56
R-81AS	40.81	38.98	39.84	40.81	31.73	9.08	38.25	1.59	8.11	80.36
R-21AM	40.05	37.68	38.91	40.05	29.76	10.29	37.74	1.17	9.15	87.20
MWs not influenced by GWE										
R-7	70.65	67.68	69.02	70.65	67.68	2.97	NM	NA2	NA2	NA2
R-23AM	38.44	34.50	36.18	38.44	34.50	3.94	34.71	NA2	NA2	NA2
R-28AM	37.55	33.97	35.04	37.55	33.97	3.58	34.01	NA2	NA2	NA2

Notes: NA1: not applicable, wells installed during or after GWE; NA2: not applicable, wells not influenced by GWE; NM: not measured in Q3 2014

Figures D-2 through D-12 show that during 2014, with the exceptions of R-23 and R-28, the water levels in these wells have mostly recovered to their mean pre-GWE elevations. The question arises: how much of the water level elevation decline over time was attributable to pumping from the remediation wells and how much was attributable to natural trend in the water levels? The hydrographs of the three wells that are apparently outside the remediation system influence (R-7, R-23AM, and R-28AM) provide clues to this question.

R-7 (Fig D.10) is located approximately 2,600 feet north of the stadium parking lot in Murphy Canyon, near the north end of the MVT. This well was not influenced by GWE operations. The data shows a water-level elevation mean of approximately 69 ft amsl from approximately 2002 to 2014. A water level drop of about 2 ft occurred between 2007 and 2009 but the levels returned to ~69 ft in 2009 and remained relatively steady through the end of 2013. There is no consistent decline during the years of remediation well pumping or rebound at the end of the pumping period and in fact there is a 2 ft upward trend to the hydrograph. Therefore this well appears to be uninfluenced by the GWE operations and is a good example of natural water levels over time.

Likewise wells R-23AM and R-28AM, located south of and near the San Diego River, show a relatively steady-state hydrograph with variation of about 2 ft above and below 35 – 36 ft amsl and a decline over time of less than one foot in both wells. There is no evident decline related to the period of highest GWE from 2012 to 2014, nor is there a rebound at the end of 2013 when pumping ended. Thus these wells appear to be uninfluenced by GWE operations and are also good examples of the absence of an overall trend in natural water levels within the MVA.

Evaluation of these hydrographs demonstrates that there has been no significant trend in the hydraulic-head elevations in the MVA from causes other than the extraction well pumping and confirms that water level decline on the order 11 ft in most of the monitoring wells is related directly to the remediation system well pumping. The water-level rebound in the GWE-influenced wells since early 2014 has been 7 – 9 ft (through Q3 2014) feet and these wells have an additional 1 to 2 feet of rise to go before reaching their respective mean pre-GWE levels.

Contamination Rebound Related to Water Level Recovery

The preceding section suggests that significant water-level recovery has taken place as of mid 2014 but that additional recovery is expected occur over the coming year. Drawdown was implemented throughout the off-Terminal portion of the site to allow the soil vapor extraction system to operate within the vadose zone and also to pump and treat remediation of dissolved-phase groundwater contamination. The gasoline (LNAPL) contamination has been remediated by these methods but residual contamination has been predicted to occur in fine-grained layers within the MVA (Geofirma and INTERA, 2013, pp.42-43) when such layers are dewatered by drawdown associated with the SVE operations, which lowered the water table by approximately 11 ft. This is because both SVE and GWE tend to selectively remediate coarser-grained sediments, leaving residual contaminant concentrations stranded in finer-grained layers. Even where analytical results from groundwater sampling indicate contaminant concentrations below

regulatory benchmarks, such concentrations can rebound through the process of back diffusion after water level recovery. Back diffusion of TBA has been identified in a similar aquifer at Vandenberg AFB by Rasa, et al. (2011) and by Geofirma and INTERA (2013).

This section interprets the attached Figures with respect to the observed TBA appearances as the water level recovers and contacts residual contamination stranded in finer-grained layers. The figures show water-level elevations plotted adjacent to the lithologic log of the well, showing the position of the water-level recovery in relation to the coarse- or fine-grained units in the MVA for those locations. The Figures also show the extraction rate from remediation wells (combined for a local area) that have influenced the water levels.

Figure D-2 for R-85AS shows the steep water-level decline associated with groundwater extraction from RW-8, RW-9, RW-107 and RW-108 to a drawdown elevation of 27.87 ft amsl. The lithologic log for this well, depicted adjacent to the water level and TBA time series graphs, indicates the presence of a silty sand layer at 27 to 33 ft amsl, which is within the interval of water level recovery since early 2014. (The screen interval at this elevation is for the AM interval even though the hydrograph is for the AS water levels). The February 2014 measurement of 39 μg TBA/L may be due to the silty sand unit shown, i.e., stranded TBA contamination, or to continuing releases from the TBA contamination at R-43 shown in Figure 2.15.

Figures D-3 and D-4 for R-42AS and R-42AM show a similar result. As the water level rebounded past the “sandy, clayey silt” at 32 to 35 feet amsl, the TBA concentrations increased in both monitoring wells to over 50 $\mu\text{g}/\text{L}$. Likewise for R-69AS (Figure D.5), the TBA concentration spiked to 97 $\mu\text{g}/\text{L}$ as the water table inundated a silty sand unit at 30 to 33 feet amsl but then disappears in the next sampling round as the water level inundated a well-graded sand interval from 33.5 to 36.88 ft amsl (May 2014). R-69AM (Figure D.6) also shows an increase in TBA as silty sand units are inundated.

A number of monitoring wells have not yet shown any sudden increase in TBA as formerly dewatered silty sand units become inundated, i.e., R-80AS (Figure D-7), R-81AS (Figure D-8), and R-21AM (Figure D-9). R-7 (Figure D.10) is up-gradient of the groundwater contamination.

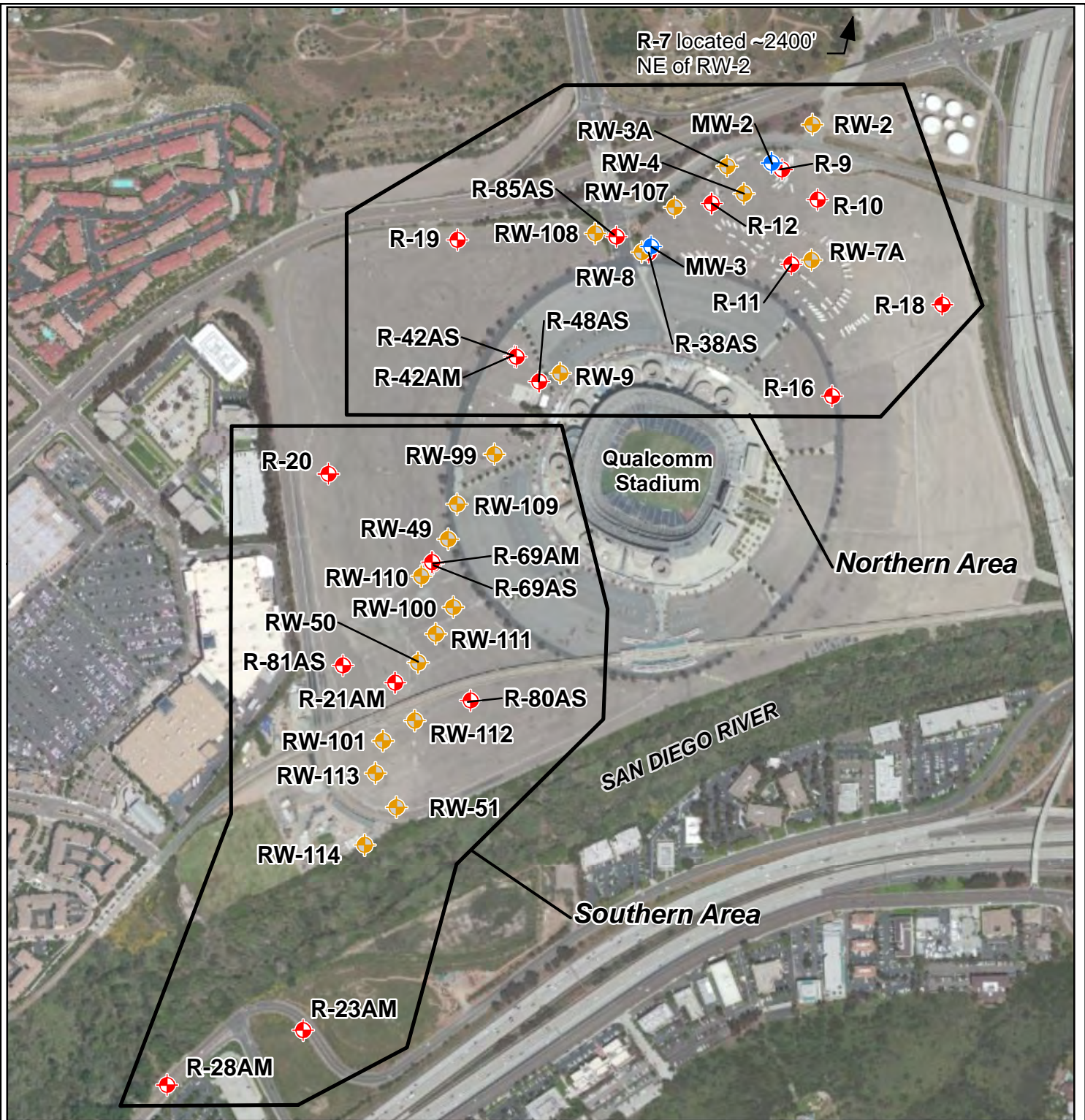
Back diffusion due to the inundation of dewatered silty sand units by a rising water table does not explain the increases in TBA observed in R-23AM (14 $\mu\text{g}/\text{L}$) and R-28AM (~950 $\mu\text{g}/\text{L}$) in early 2014 as shown in Figure 2.15 and Figures D.11 and D.12. In these monitoring wells the fugitive TBA plume, which was beyond the hydraulic influence of the KMEP GWE wells, is migrating to the southwest within the MVA and will continue towards the DB monitoring wells.

In summary, the water levels in most of the monitoring wells in the MVA declined approximately 11 ft due to drawdown from the GWE system during 2005-2013, then rebounded about 7 ft during the first three quarters of 2014. Another 1 to 2 feet of recovery can be expected before the water table reaches the pre-extraction elevations. TBA concentrations >12 $\mu\text{g}/\text{L}$ have occurred because of (i) back diffusion from finer-grained units and (ii) groundwater transport of TBA from other isolated zones, e.g., R-43.

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FIGURES

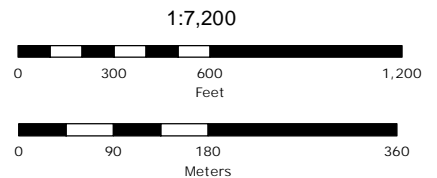
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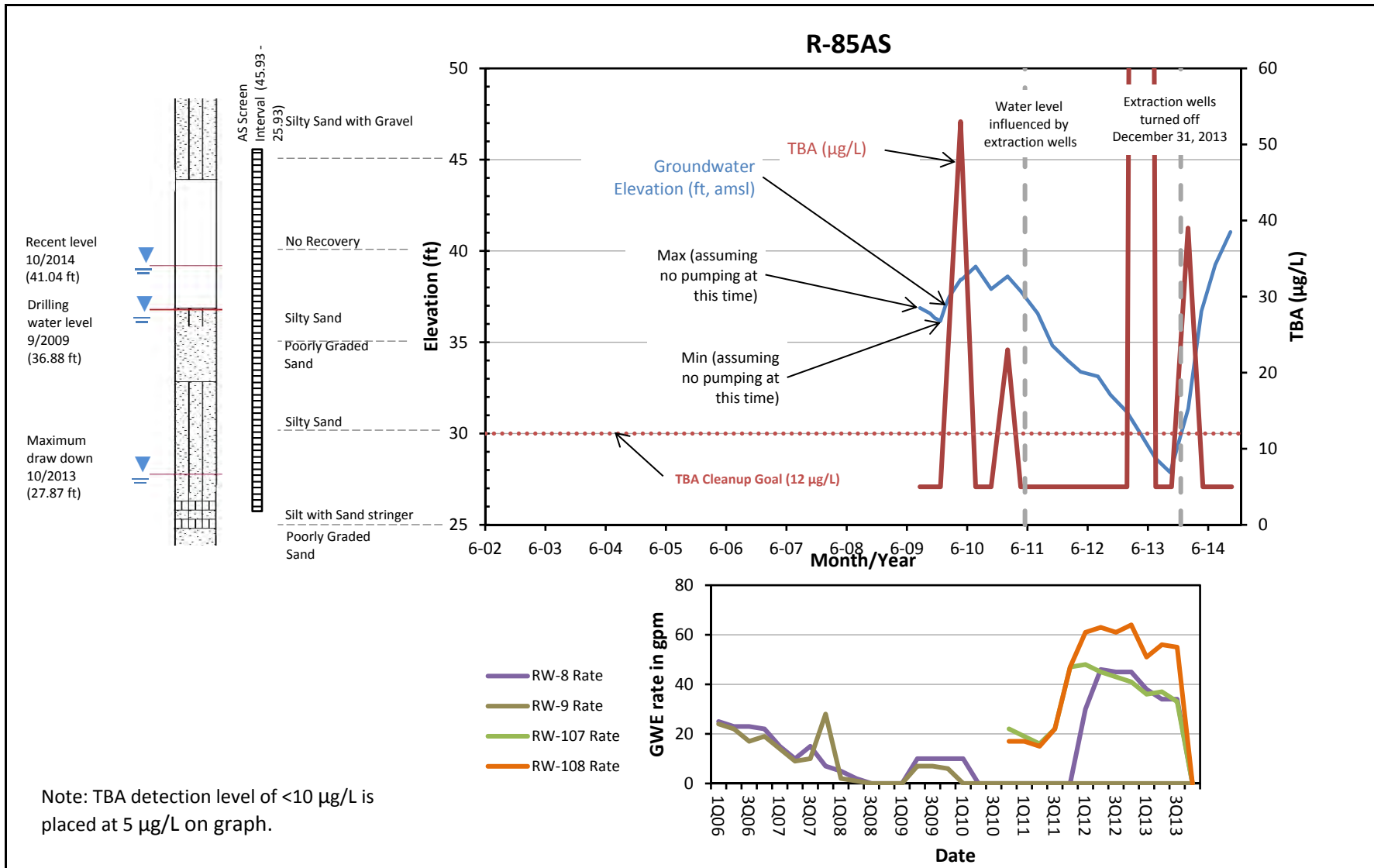
Well location map,
San Diego River Valley and Murphy Canyon

Legend

-  KMEP Monitoring Well
-  KMEP GWE Well
-  City Monitoring Well



PROJECT No. 07-204-1	
PROJECT Mission Valley Terminal Remediation	
DESIGN: CAD/GIS: LEB CHECK: REV:	D-1
Date: 2/19/2015	



R-85AS water level elevation time series (to 4Q 2014)
with lithologic column,
Mission Valley Terminal, San Diego, CA

Project: Mission Valley Terminal Remediation

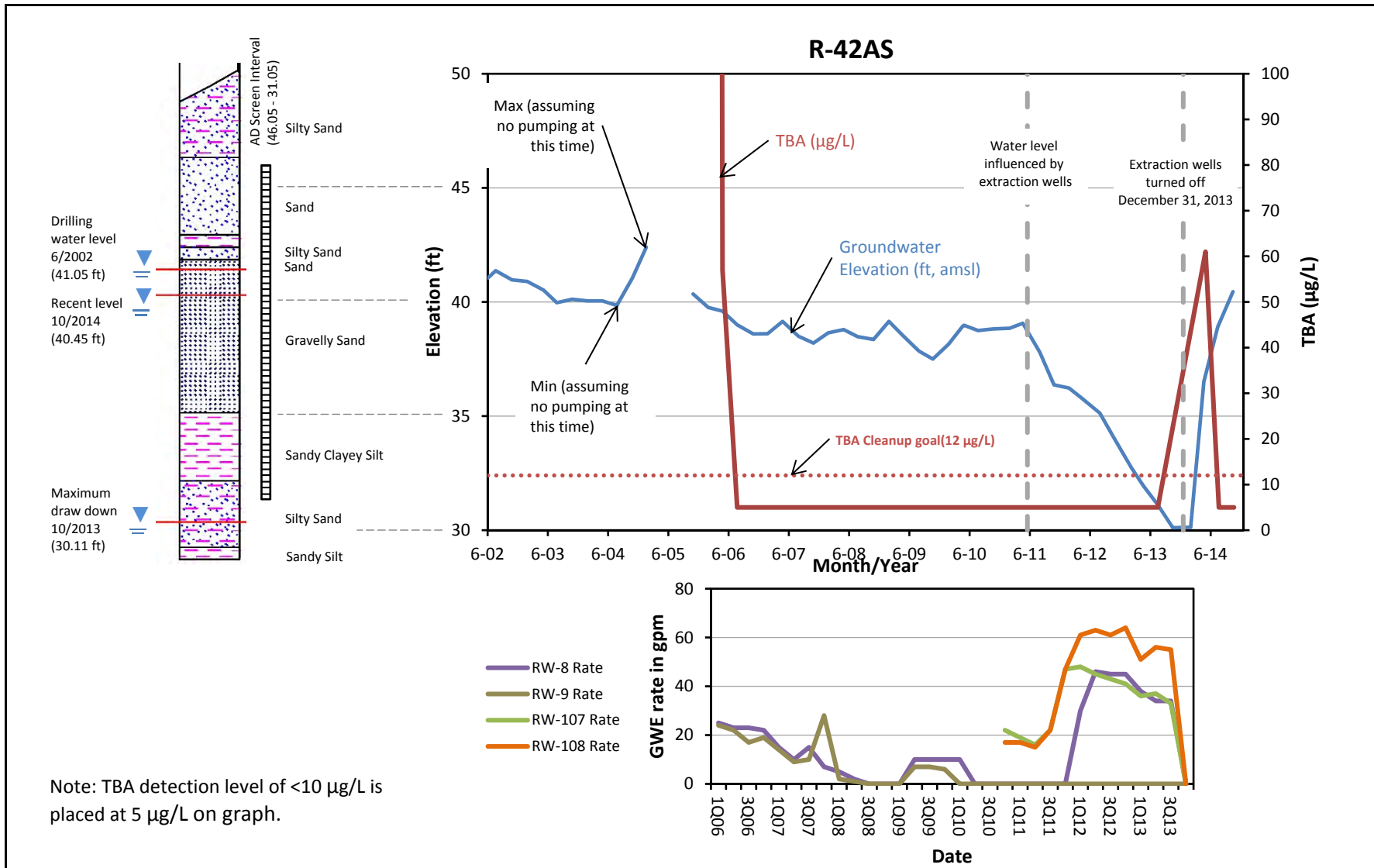


Source: Water Levels - Geotracker, Lithology - LFR, 2009

PROJECT No. 07-204-1

Date: 3/9/2015

D-2



Note: TBA detection level of <10 µg/L is placed at 5 µg/L on graph.

R-42AS water level elevation time series (to 4Q 2014)
with lithologic column,
Mission Valley Terminal, San Diego, CA

Project: Mission Valley Terminal Remediation

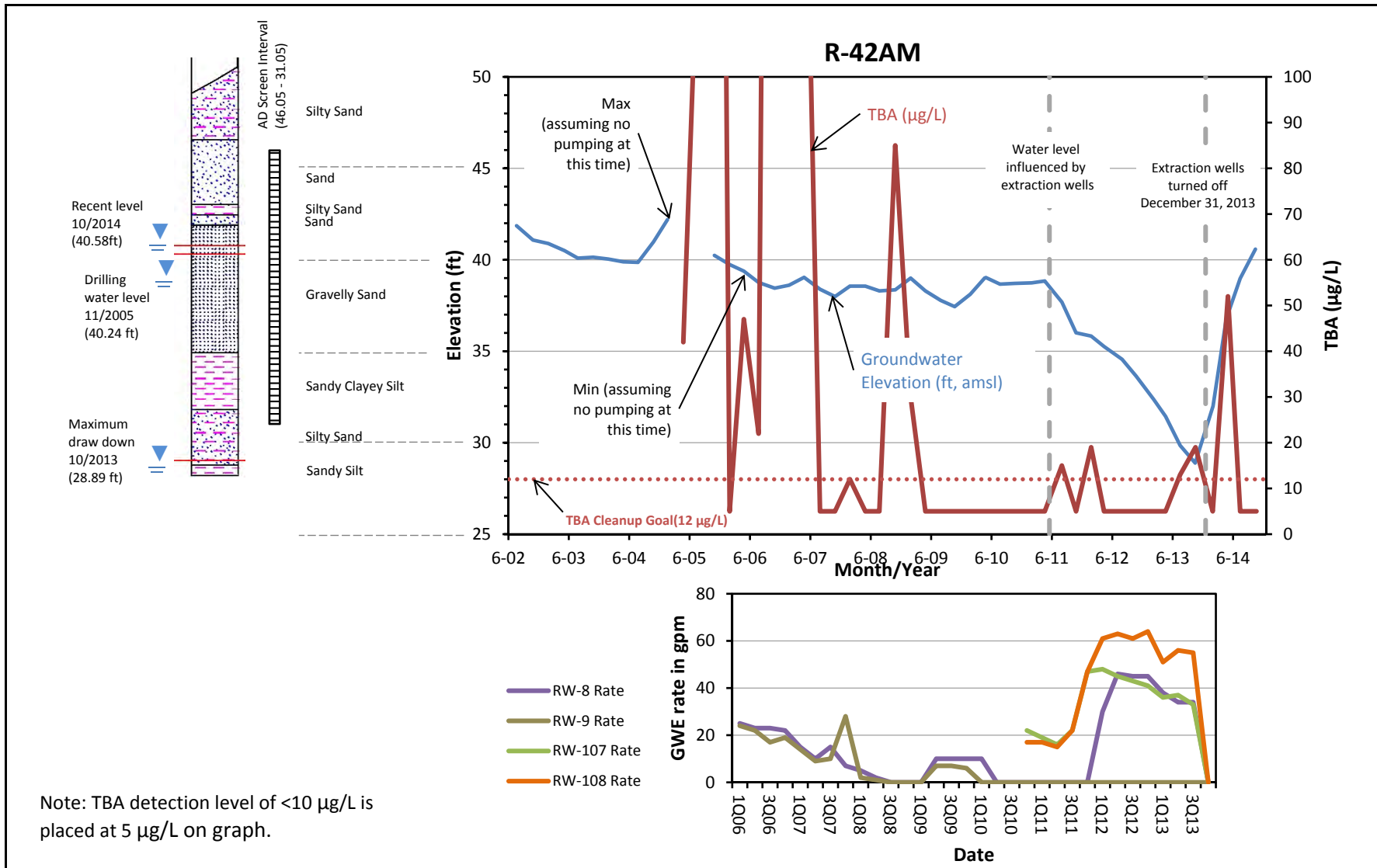


Source: Water Levels - Geotracker, Lithology - LFR, 2002

PROJECT No. 07-204-1

Date: 3/9/2015

D-3



Note: TBA detection level of <10 µg/L is placed at 5 µg/L on graph.

R-42AM water level elevation time series (to Q4 2014)
 with Lithologic column,
 Mission Valley Terminal, San Diego, CA

Project: Mission Valley Terminal Remediation

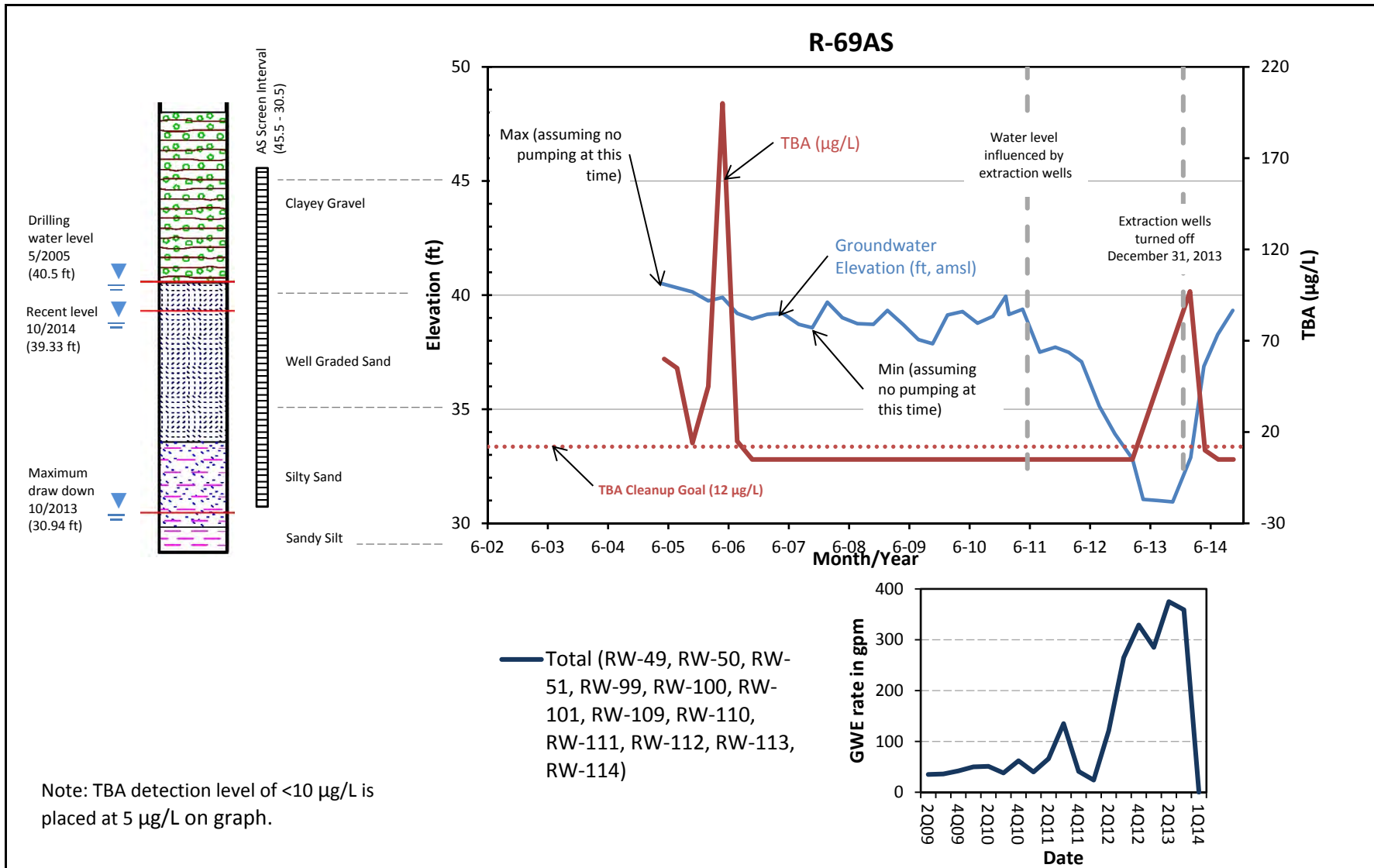


Source: Water Levels - Geotracker, Lithology - LFR, 2002

PROJECT No. 07-204-1

Date: 3/9/2015

D-4



R-69AS water level elevation time series (to 4Q 2014)
with lithologic column,
Mission Valley Terminal, San Diego, CA

Project: Mission Valley Terminal Remediation



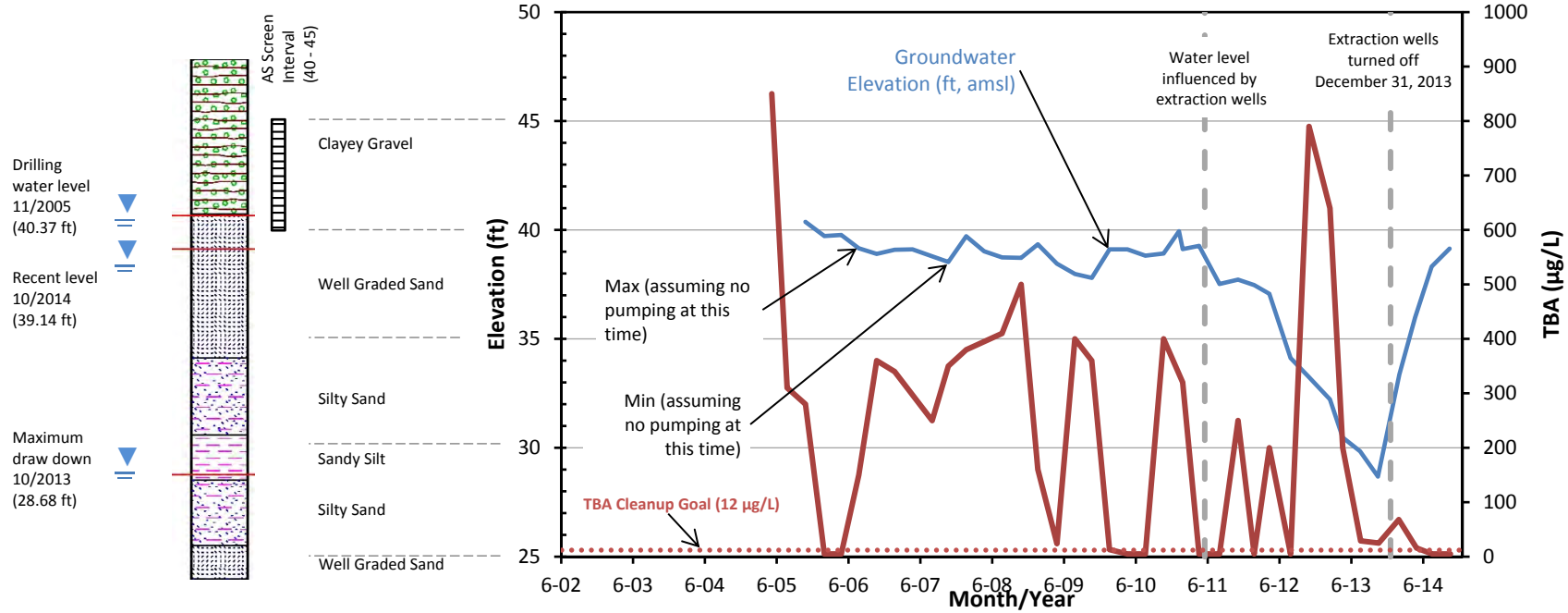
Source: Water Levels - Geotracker, Lithology - LFR, 2005

PROJECT No. 07-204-1

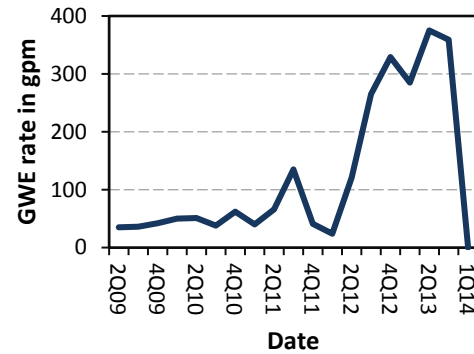
Date: 3/9/2015

D-5

R-69AM



— Total (RW-49, RW-50, RW-51, RW-99, RW-100, RW-101, RW-109, RW-110, RW-111, RW-112, RW-113, RW-114)



Note: TBA detection level of <10 µg/L is placed at 5 µg/L on graph.

R-69AM water level elevation time series (to 4Q 2014)
with lithologic column,
Mission Valley Terminal, San Diego, CA

Project: Mission Valley Terminal Remediation



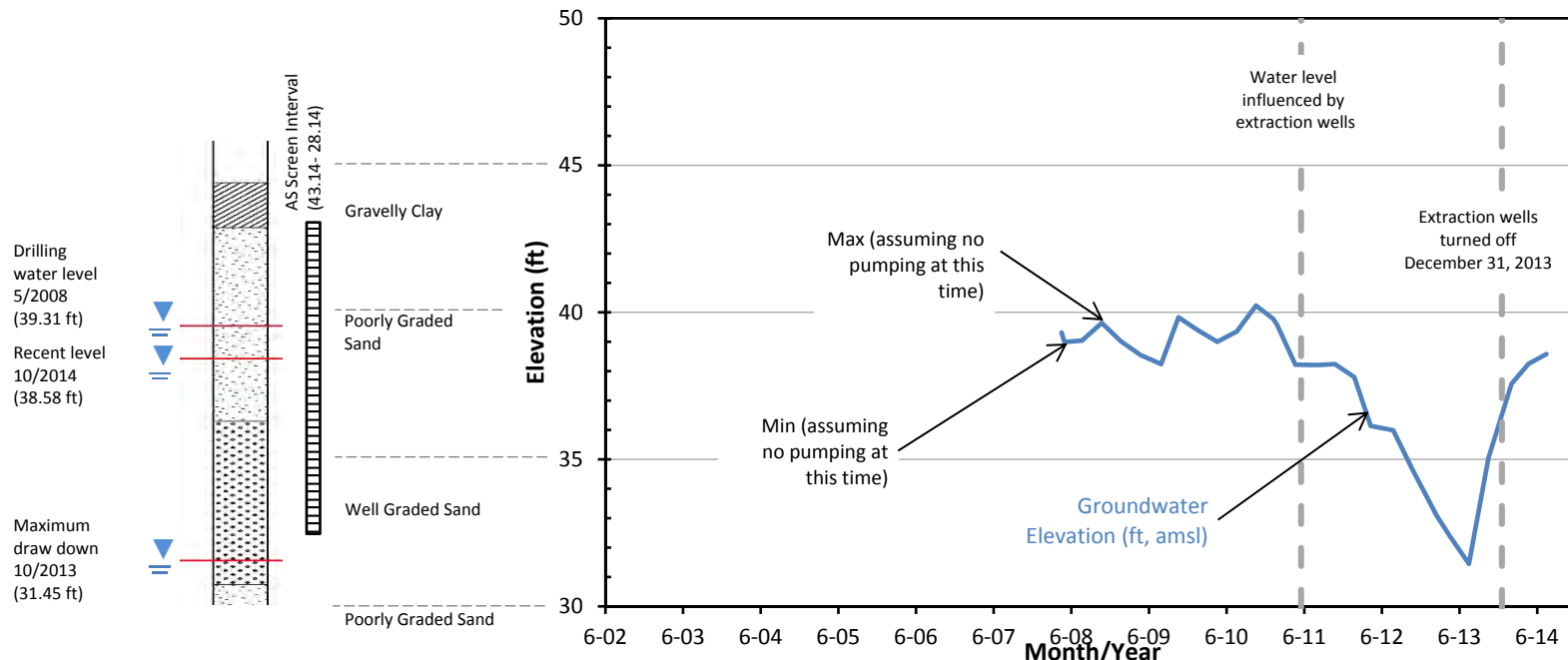
Source: Water Levels - Geotracker, Lithology - LFR, 2005

PROJECT No. 07-204-1

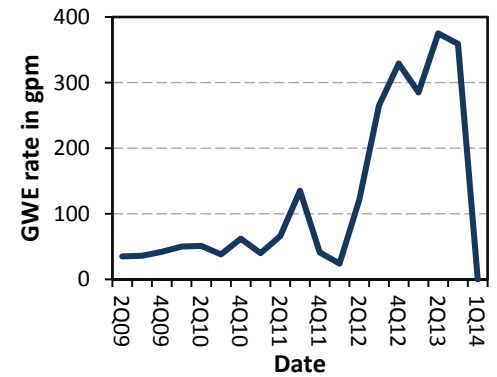
Date: 3/9/2015

D-6

R-80AS



— Total (RW-49, RW-50, RW-51, RW-99, RW-100, RW-101, RW-109, RW-110, RW-111, RW-112, RW-113, RW-114)



R-80AS water level elevation time series (to 4Q 2014) with lithologic column, Mission Valley Terminal, San Diego, CA

Project: Mission Valley Terminal Remediation

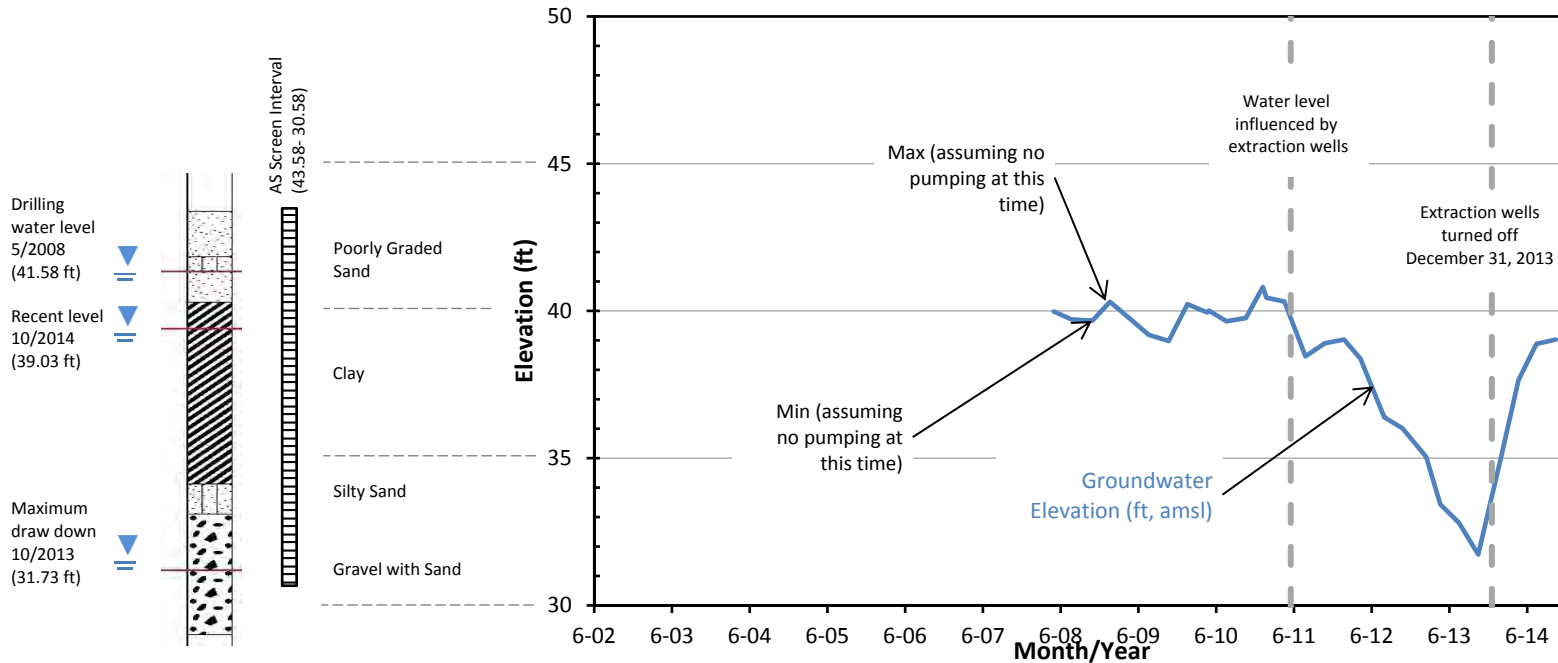


Source: Water Levels - Geotracker, Lithology - LFR, 2008

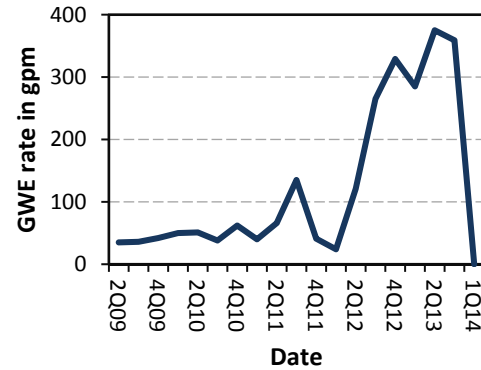
PROJECT No. 07-204-1
Date: 3/9/2015

D-7

R-81AS



— Total (RW-49, RW-50, RW-51, RW-99, RW-100, RW-101, RW-109, RW-110, RW-111, RW-112, RW-113, RW-114)



R-81AS water level elevation time series (to 4Q 2014)
with lithologic column,
Mission Valley Terminal, San Diego, CA

Project: Mission Valley Terminal Remediation



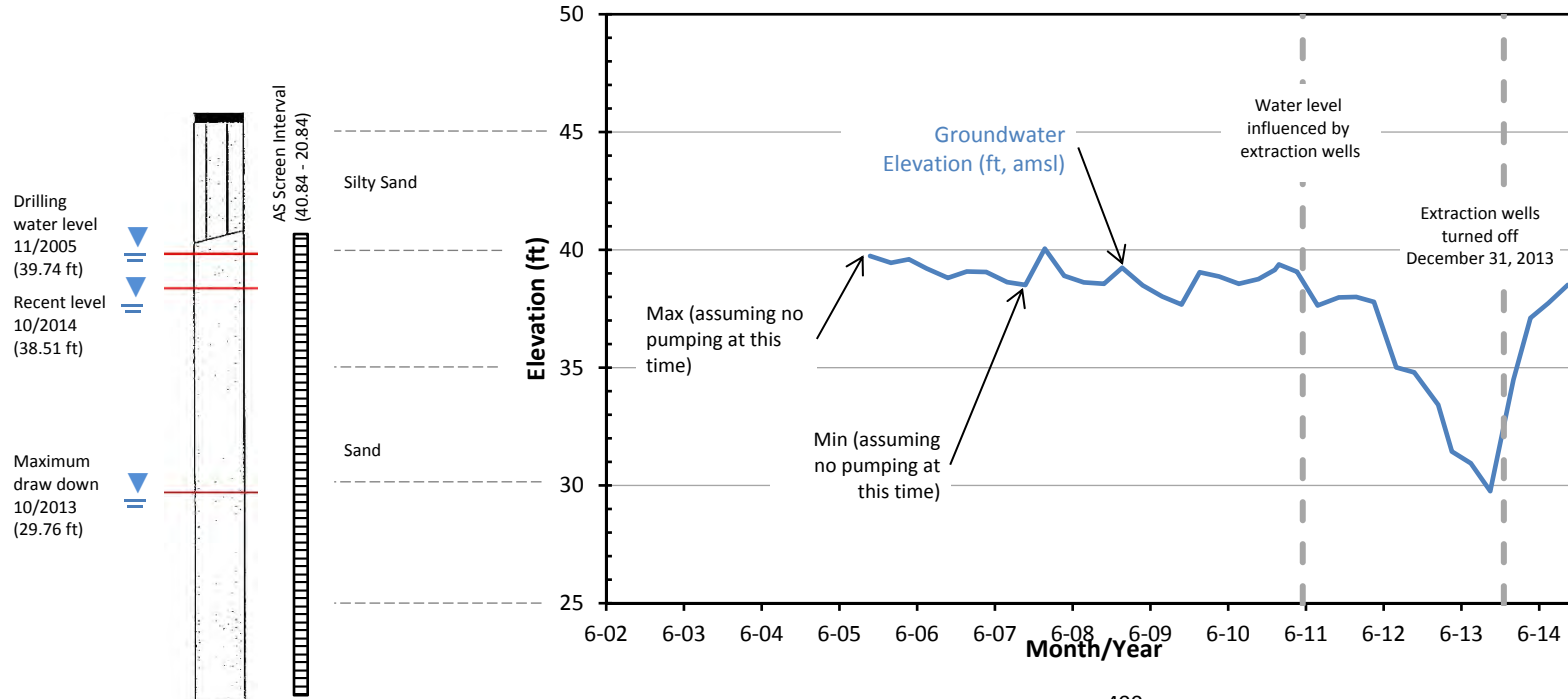
Source: Water Levels - Geotracker, Lithology - LFR, 2008

PROJECT No. 07-204-1

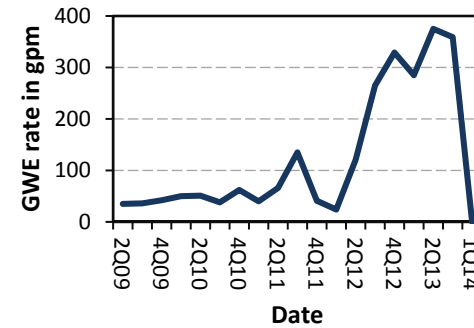
Date: 3/9/2015

D-8

R-21AM



— Total (RW-49, RW-50, RW-51, RW-99, RW-100, RW-101, RW-109, RW-110, RW-111, RW-112, RW-113, RW-114)



R-21AM Water level elevation time series (to 4Q 2014)
with lithologic column,
Mission Valley Terminal, San Diego, CA

Project: Mission Valley Terminal Remediation



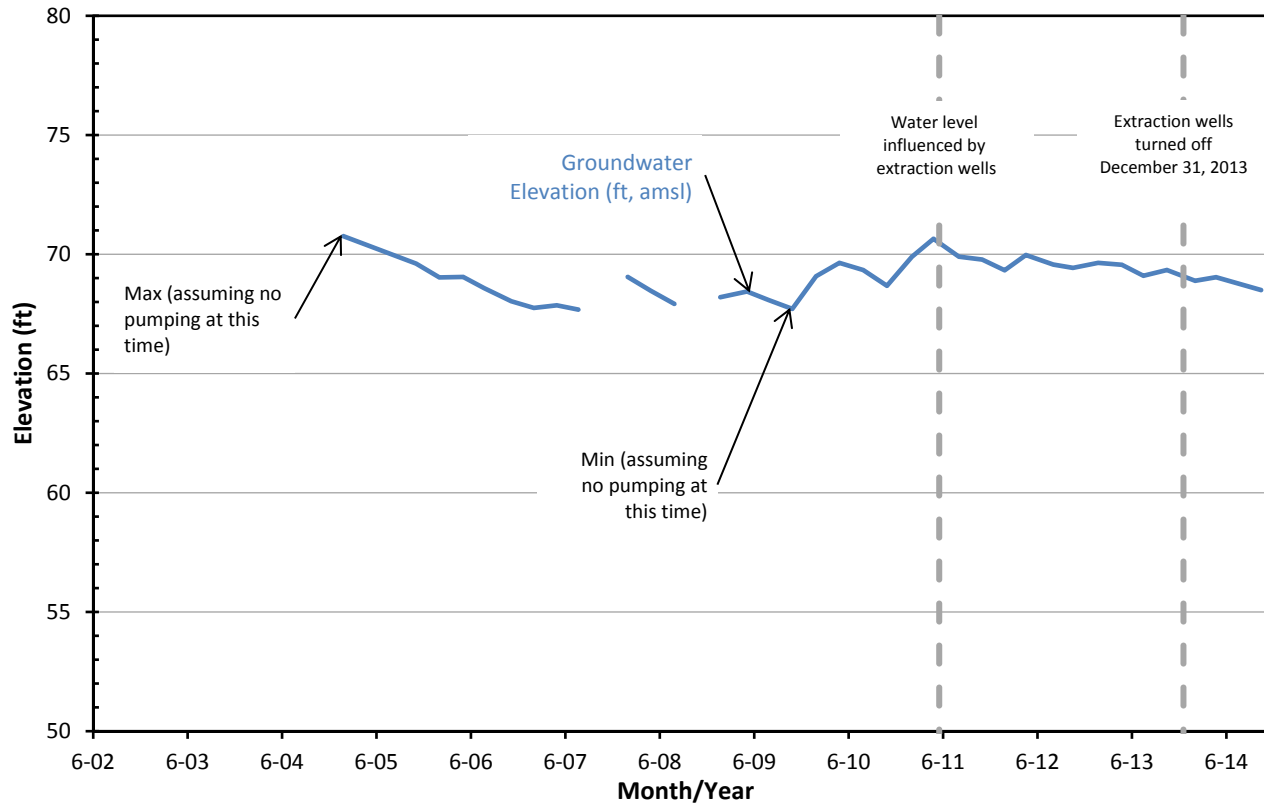
Source: Water Levels - Geotracker, Lithology - HLA, 1998

PROJECT No. 07-204-1

Date: 3/9/2015

D-9

R-7



R-7 water level elevation time series (to 4Q 2014),
Mission Valley Terminal, San Diego, CA

Project: Mission Valley Terminal Remediation



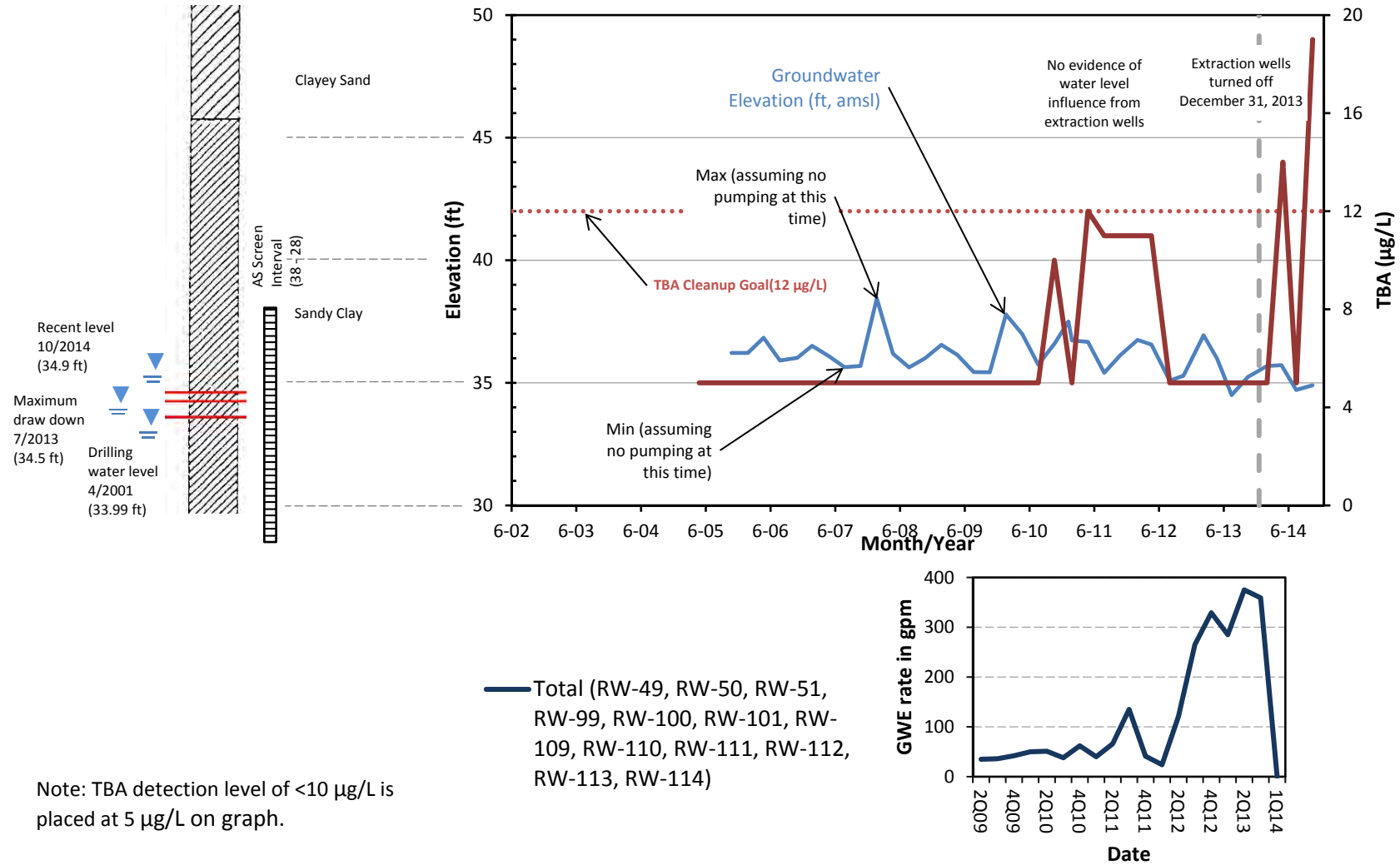
Source: Water Levels - Geotracker

PROJECT No. 07-204-1

Date: 3/9/2015

D-10

R-23AM



R-23AM water level elevation time series (to 4Q 2014)
 with lithologic column,
 Mission Valley Terminal, San Diego, CA

Project: Mission Valley Terminal Remediation

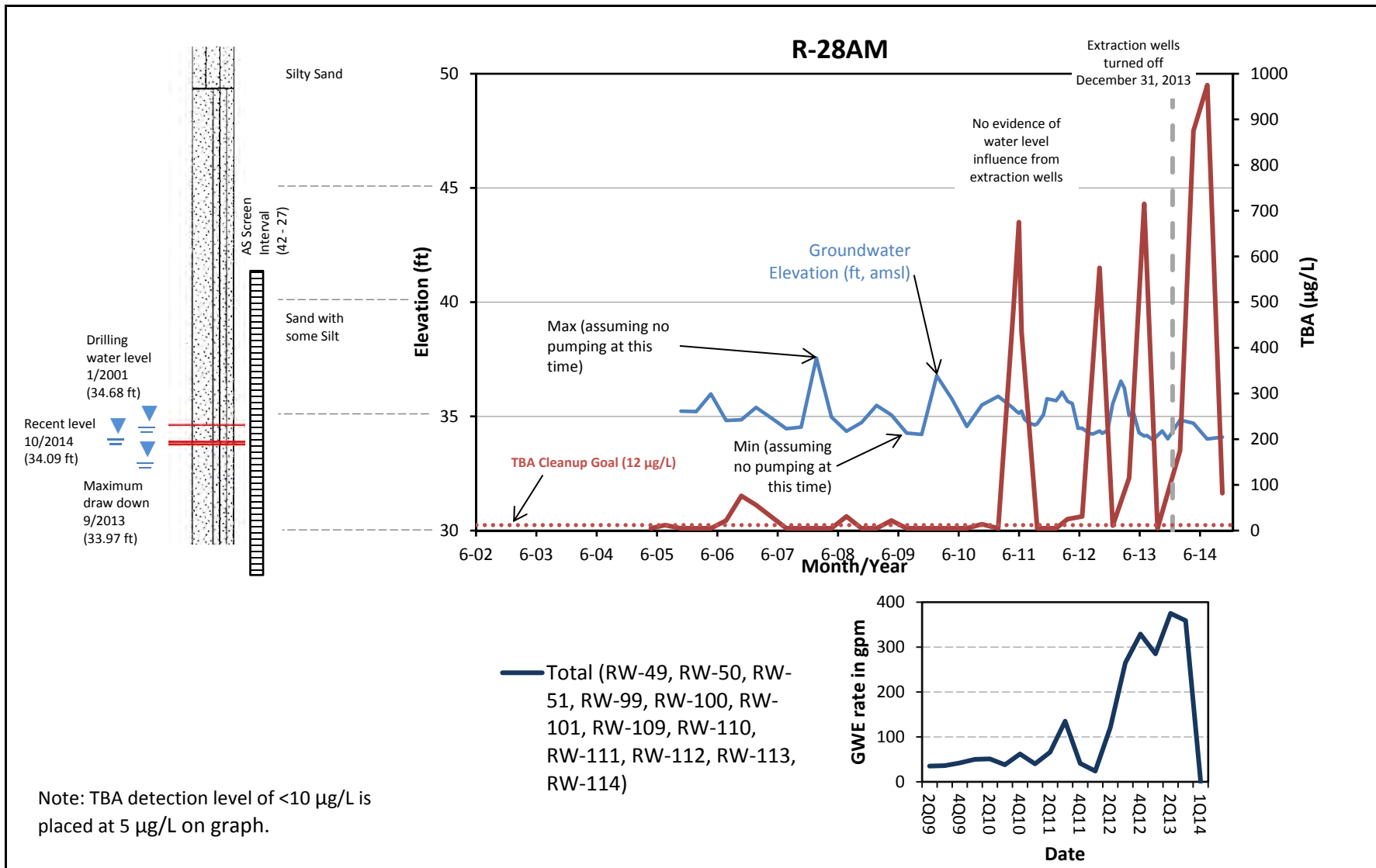


Source: Water Levels - Geotracker, Lithology - LFR, 2001

PROJECT No. 07-204-1

Date: 3/9/2015

D-11



R-28AM water level elevation time series (to 4Q 2014)
with lithologic column,
Mission Valley Terminal, San Diego, CA

INTERA Source: Water Levels - Geotracker, Lithology - LFR, 2001

Project: Mission Valley Terminal Remediation

PROJECT No. 07-204-1
Date: 3/9/2015

D-12

Appendix C
Pertinent Agency
File Review Records

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Converse Consultants

Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

60th Anniversary

1946 - 2006

January 3, 2006

Mr. George McCandless
County of San Diego
Department of Environmental Health
P.O. Box 129261
San Diego, CA 92112-9261

Subject: Qualcomm Stadium
Tanker Spill and Fire
9449 Friars Road
San Diego, CA 92101

Dear Mr. McCandless:

Converse Consultants (Converse) has completed the clean up of the San Diego River as agreed upon in the December 20, 2005 meeting. On behalf of Van Dyk Tank Lines, Converse is submitting this application for the assessment and remediation of the areas of the spill, fire and adjacent parking lot within your Voluntary Assistance Program (VAP). Attached please note the application and copy of check. The originals are being sent overnight to you. You should receive them no later than January 5, 2006.

Please note that the Responsible Party still is:

Van Dyk Tank Lines
P.O. Box 341
Bloomington, CA 92316-4723
Attn: Jim Welch

Any help expediting this process is greatly appreciated.

If you have any question please feel free to contact William Ragsdale at 909 796-0544 or John Ziegler at 626 930-1234.

Sincerely,


William Ragsdale, REA
Project Environmental Scientist


John R. Ziegler
Senior professional



Printed on
Recycled
Paper

10391 Corporate Drive, Redlands, California 92374

Telephone: (909) 796-0544 ♦ Facsimile: (909) 796-7675 ♦ e-mail: redlands@converseconsultants.com

P.O. BOX 129261
 SAN DIEGO, CA 92112-9261
 ATTN: NASSER SIONIT
 (619) 338-2239
 (619) 338-2315 (FAX)
 WEB SITE: www.co.san-diego.ca.us/deh/lwq/sam



FOR OFFICE USE:	
Date Received	1-10-06
Submission Fee Paid	\$230.00
Establishment #	H21360-001

JAN 9 AM 11 37
 MAIL ROOM

COUNTY OF SAN DIEGO
 DEPARTMENT OF ENVIRONMENTAL HEALTH
VOLUNTARY ASSISTANCE PROGRAM
APPLICATION FOR ASSISTANCE
 (PLEASE READ BOTH PAGES OF THIS APPLICATION PRIOR TO COMPLETION)

A. Site Name <u>Qualcomm Stadium</u>		Assessors Parcel Number <u>433-250-13-00</u>	
Site Address <u>9449 Friars Road</u>	<u>San Diego</u>	<u>CA</u>	<u>92108</u>
Street	City	State	Zip Code
B. Property Owner <u>City of San Diego</u>			
Mailing Address <u>San Diego city Attorney</u>			
<u>1200 Third Avenue, Suite 1100, San Diego, CA 92101</u>			
Street	City	State	Zip Code
Contact Person <u>Daniel F. Bamberg, Deputy City Attorney</u>		Telephone <u>(619) 533-5800</u>	
<u>Civil Division</u>			
C. Application Submitted By:			
Contact Person <u>William Ragsdale</u>		Telephone <u>(909) 796-0544</u>	
Company Name <u>Converse Consultants</u>		<u>cell (951) 264 5145</u>	
Mailing Address <u>10391 Corporate Drive, Redlands, CA 92374</u>			
Street	City	State	Zip Code
Note: Invoices will be sent to the applicant at this address unless other arrangements are made.			
D. Brief Project Description <u>Remediation of gasoline impacted soils at the site of</u>			
<u>the December 7, 2005, tanker spill and fire near the intersection of</u>			
<u>Mission Village Drive and Friars Road.</u>			
Type of Assistance Requested <u>Oversight remedial activities.</u>			

I accept the application requirements and project review conditions listed on Page 2 of 2 and I agree to pay all costs associated with DEH staff time and services within 30 days of receiving an invoice.

James L Welch
 Original Signature of Applicant

James L Welch H
 Printed Name

1-4-06
 Date

From: Jim Welch [jwelch@meritoil.com]
Sent: Tuesday, January 03, 2006 3:18 PM
To: William L. Ragsdale(Red.)
Cc: jwellons@shieldengineering.com; John R. Ziegler(Monr.); Stanley G. White(CM)
Subject: RE: Voluntary Assistance Program (VAP) Application

Importance: High

William,

Converse Consultants has my authorization to sign VAP application on behalf of Van Dyk Tank Lines Inc.

Jim Welch

-----Original Message-----

From: William L. Ragsdale(Red.) [mailto:WRagsdale@ConverseConsultants.com]
Sent: Tuesday, January 03, 2006 2:59 PM
To: jwelch@meritoil.com
Cc: jwellons@shieldengineering.com; John R. Ziegler(Monr.); Stanley G. White(CM)
Subject: Voluntary Assistance Program (VAP) Application

Jim,

Here is a copy of the VAP Application. This will put you into oversight with the County of San Diego Department of Environmental Health (DEH) for the area of the spill and adjacent parking lot. This was a request that was made by all parties involved and agreed upon in the December 20th meeting. The advantage we have by entering the VAP is from this point on we will be under the direction/oversight of only one regulatory agency which has a very defined and well published guidelines (Site Assessment and Mitigation (SAM) Manual).

Please respond via e-mail or fax that Converse has been authorized to sign this application on your behalf. This application, with appropriate fees and cover letter identifying Van Dyk Tank Lines as the Responsible Party (RP) needs to be sent to San Diego DEH today or tomorrow.

I will follow up with you today with a phone call.

Sincerely,

William Ragsdale

Project Environmental Scientist
Converse Consultants
Office 909 796-0544
Fax 909 796-7675
Cell 951 264-5145

P.O. BOX 129261
SAN DIEGO, CA 92112-9261
ATTN: NASSER SIONIT
(619) 338-2239
(619) 338-2315 (FAX)
WEB SITE: www.co.san-diego.ca.us/deh/lwq/sam



CHECK # 73428

FOR OFFICE USE:
Date Received 1-10-06 1-10-06
Submittal Fee Paid \$ 230.00
Establishment # #21360-001

MAIL ROOM

COUNTY OF SAN DIEGO
DEPARTMENT OF ENVIRONMENTAL HEALTH
VOLUNTARY ASSISTANCE PROGRAM
APPLICATION FOR ASSISTANCE

(PLEASE READ BOTH PAGES OF THIS APPLICATION PRIOR TO COMPLETION)

A. Site Name Qualcomm Stadium Assessors Parcel Number 433-250-13-00
Site Address 9449 Friars Road San Diego CA 92108
Street City State Zip Code

B. Property Owner City of San Diego
Mailing Address San Diego city Attorney
1200 Third Avenue, Suite 1100, San Diego, CA 92101
Street City State Zip Code
Contact Person Daniel F. Bamberg, Deputy City Attorney Telephone (619) 533-5800
Civil Division

C. Application Submitted By:
Contact Person William Ragsdale Telephone (909) 796-0544
Company Name Converse Consultants
Mailing Address 10391 Corporate Drive, Redlands, CA 92374
Street City State Zip Code

Note: Invoices will be sent to the applicant at this address unless other arrangements are made.

D. Brief Project Description Remediation of gasoline impacted soils at the site of
the December 7, 2005, tanker spill and fire near the intersection of
Mission Village Drive and Friars Road.

Type of Assistance Requested Oversight remedial activities.

I accept the application requirements and project review conditions listed on Page 2 of 2 and I agree to pay all costs associated with DEH staff time and services within 30 days of receiving an invoice.


Original Signature of Applicant

William Ragsdale
Printed Name

1/3/06
Date

COUNTY OF SAN DIEGO
DEPARTMENT OF ENVIRONMENTAL HEALTH
VOLUNTARY ASSISTANCE PROGRAM

The Voluntary Assistance Program is designed to provide the applicant with staff consultation, project review, and public health assessment pertaining to properties suspected or known to be contaminated with hazardous substances. California Health and Safety Code Sections 101480-101490 authorize the County Department of Environmental Health (DEH) to enter into voluntary agreements for the oversight of remedial action at sites contaminated by wastes.

The DEH staff will review and manage all projects in accordance with applicable regulatory requirements, industry practices, and the current version of the DEH Site Assessment and Mitigation Manual. Our goal throughout project review is the protection of human health, water resources and the environment. Upon completion of a project, DEH will issue a letter addressing the applicant's specific project goals. Open lines of communication between DEH and the applicant provide the best opportunities for expedient review and successful project resolution.

Application Requirements

- Sections A, B, C, and D must be completed on the "Application for Assistance" form (Page 1 of 2), along with the applicant's original signature.
- Fully describe your project and your specific request(s) for DEH review and written response (Section D). As necessary, include a cover letter to clarify your project needs.
- Submit all relevant documentation/reports with the application. All documents containing geologic and/or contaminant migration interpretations must be signed by an experienced professional with the appropriate California registration or certification.
- An **initial fee of \$230, payable to the County of San Diego**, is required at the time of application submittal. This fee covers two (2) hours of staff review time. Staff time in excess of two hours will be invoiced to applicant and must be paid within 30 days of receipt of the invoice. The staff billing rate is currently \$115/hour. **Staff assistance will not be provided on delinquent accounts.**

Project Review Conditions

- Within five (5) workdays of DEH receipt of your complete application, the project is identified by a DEH Case No. and assigned to a DEH project manager.
- The DEH will notify the Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB) that the project has been submitted for DEH review.
- A copy of all written DEH correspondence will be sent to the applicant and forwarded to the legal property owner. Project files will be available for public review.
- DEH has the option of referring the project to the DTSC or RWQCB at any time during the project review process. If the applicant ceases work, or requests DEH to cease work, on a project prior to resolving site contamination issues, then DEH would refer the project to the appropriate agency and/or identify the project as unresolved in the DEH database.

McCandless, George

From: Long, Brad
Sent: Friday, December 30, 2005 8:25 AM
To: McCandless, George; Sionit, Nasser
Cc: Burton, Todd; Cammall, David; Vent, Nick
Subject: FW: Results from San Diego River/Outfall soil removal
Attachments: Maps.pdf

Updated from the Qualcomm clean-up, additional e-mail to follow.

Brad Long
w-619-338-2216

c-619-778-4917

From: William L. Ragsdale(Red.) [mailto:WRagsdale@ConverseConsultants.com]
Sent: Thursday, December 29, 2005 12:28 PM
To: jprescot@ospr.dfg.ca.gov; dorsk@rb9.swrcb.ca.gov
Cc: Long, Brad; Daniel Bamberg; jwelch@meritoil.com; jwellons@shieldengineering.com; John R. Ziegler(Monr.); Stanley G. White(CM)
Subject: Results from San Diego River/Outfall soil removal

As requested Converse has overseen the removal of Gasoline impacted soil from out fall area within the San Diego River. The two areas of removal were identified as Pond 1 and Pond 2 (see attached drawings). Pond 1 an average of one foot of soil was removed from that area. Pond 2 vegetation (reeds) and an average of 4 inches of soil was removed from that area. Five confirmation samples were collected from each pond and analyzed for 8015m Carbon Chain and 8260B for Volatile Organic Compounds (VOCs). Attached, *in the following e-mail*, are the results from the background and confirmation sampling along with a table comparing the reported concentration to residential Preliminary Remediation Goals (PRGs).

It is Converse's opinion that reported concentration are well below regulatory levels and that no further removal is warranted

Please review the results and comment.

FYI BG4 is from the outfall to the west

William Ragsdale

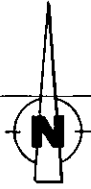
Project Environmental Scientist
Converse Consultants
Office 909 796-0544
Fax 909 796-7675
Cell 951 264-5145

12/30/2005

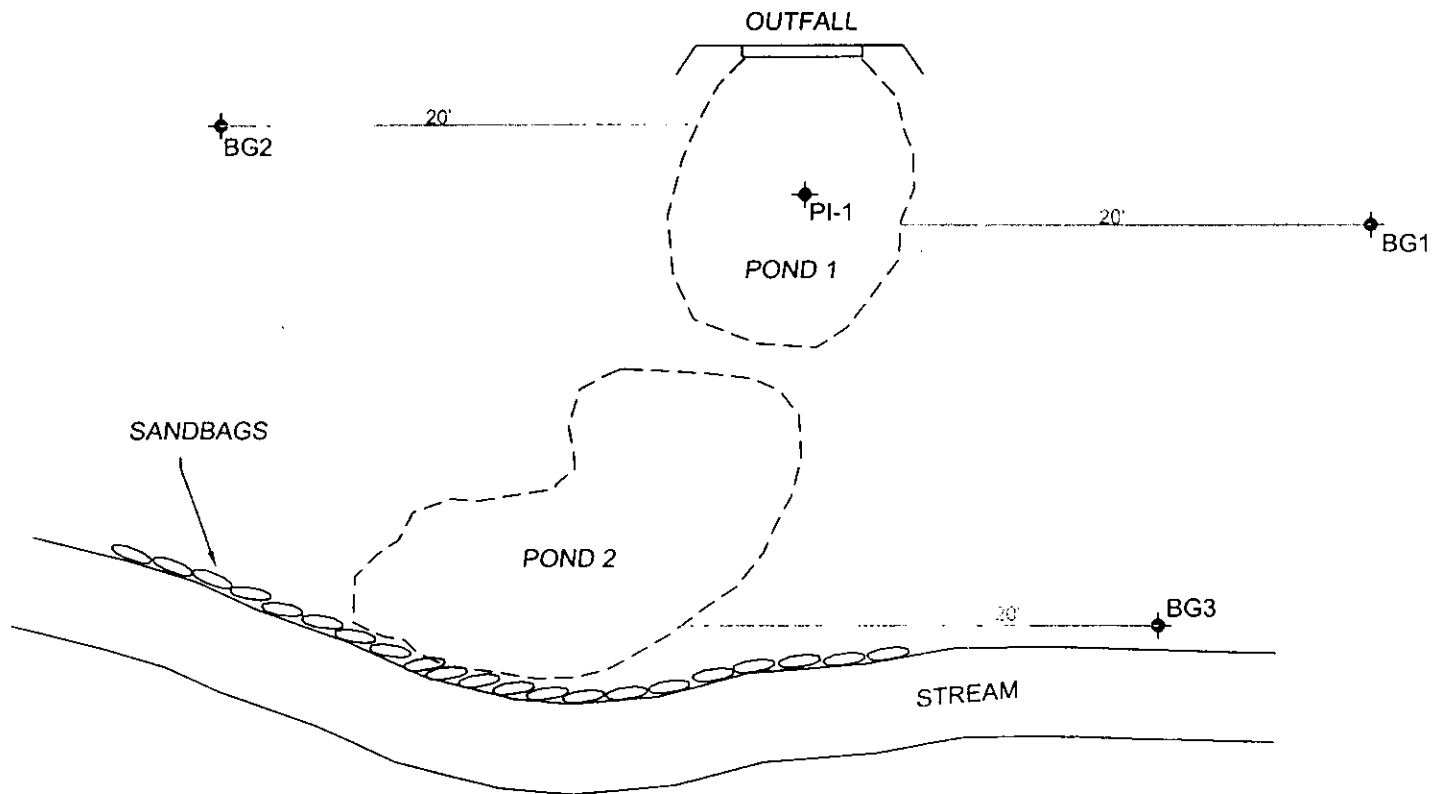
PARKING LOT

CHAINLINK FENCE

GATE



NOT TO SCALE



BORING LOCATION MAP



Converse Consultants

VAN DYKE
QUALCOMM STADIUM
SAN DIEGO, CALIFORNIA

Project No.
05-16-255-01

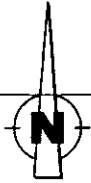
Figure No.

1

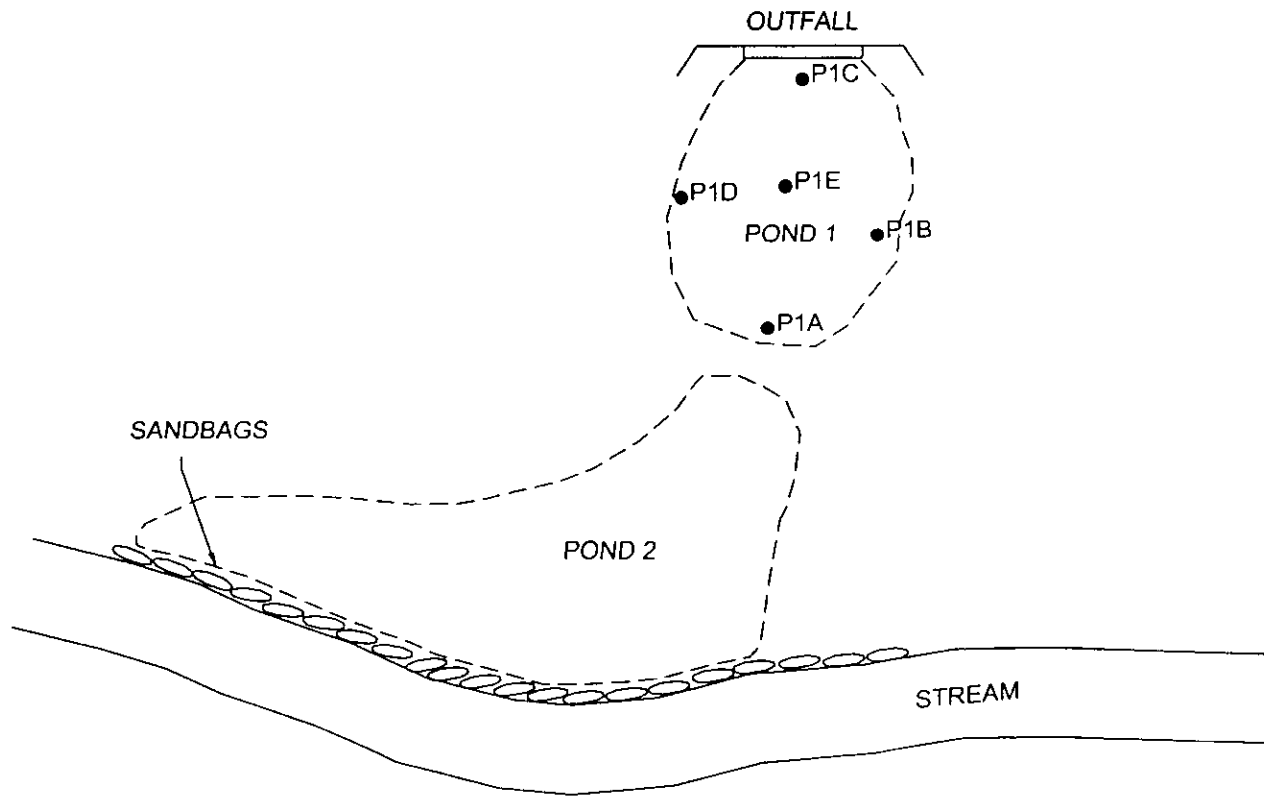
PARKING LOT

CHAINLINK FENCE

GATE



NOT TO SCALE



BORING LOCATION MAP



Converse Consultants

VAN DYKE
QUALCOMM STADIUM
SAN DIEGO, CALIFORNIA

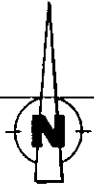
Project No.
05-16-255-01

Figure No.
2

PARKING LOT

CHAINLINK FENCE

GATE



NOT TO SCALE

OUTFALL

POND 1

SANDBAGS

P2D

P2A

P2C

P2E

POND 2

P2B

STREAM

BORING LOCATION MAP



Converse Consultants

VAN DYKE
QUALCOMM STADIUM
SAN DIEGO, CALIFORNIA

Project No.
05-16-255-01

Figure No.

3

McCandless, George

From: Long, Brad
Sent: Friday, December 30, 2005 8:41 AM
To: McCandless, George; Sionit, Nasser
Cc: Burton, Todd; Cammall, David; Vent, Nick
Subject: FW: Laboratory Results and Table for Qualcomm Stadium
Attachments: BG4 results4final 1.pdf; Lab Results 122005.pdf; Confirmation Results 122305-final 1.pdf; table1 Final.xls

Update on the Qualcomm clean-up.

Based on the latest clean-up and sample results there I see no further concern/need for clean-up at the storm water outfall, form HMDs/ER for "Hazardous Waste Standards".

The remaining area of concern for HMD/ER remains at the site of the roll-over. George, Nasser, Has the consultant or the RP applied/accepted to VAP? During the last meeting it was decided that clean-up would continue after/on Jan 1st, If they are in VAP have they been provide with any guidance from VAP?

Brad Long
w-619-338-2216

c-619-778-4917

From: William L. Ragsdale(Red.) [mailto:WRagsdale@ConverseConsultants.com]
Sent: Thursday, December 29, 2005 12:28 PM
To: jprescot@ospr.dfg.ca.gov; dorsk@rb9.swrcb.ca.gov
Cc: Long, Brad; jewelh@meritoil.com; jwellons@shieldengineering.com; Daniel Bamberg; John R. Ziegler(Monr.); Stanley G. White(CM)
Subject: Laboratory Results and Table for Qualcomm Stadium

Attached Laboratory results and table

William Ragsdale

Project Environmental Scientist
Converse Consultants
Office 909 796-0544
Fax 909 796-7675
Cell 951 264-5145

12/30/2005

Sionit, Nasser

From: McCandless, George
Sent: Friday, December 30, 2005 2:01 PM
To: Long, Brad; Sionit, Nasser
Cc: Burton, Todd; Cammall, David; Vent, Nick
Subject: RE: Laboratory Results and Table for Qualcomm Stadium

Brad,

To the best of my knowledge the RP and/or the consultant have NOT applied to VAP.

Thus we have not provided any guidance.

Thanks George

George McCandless, Supervising Environmental Health Specialist
Site Assessment and Mitigation Program
Land and Water Quality Division
San Diego County, Department of Environmental Health
Phone 619-338-2259 Fax 619-338-2315

From: Long, Brad
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1/3/2006

Subject: Laboratory Results and Table for Qualcomm Stadium

Attached Laboratory results and table

William Ragsdale

Project Environmental Scientist

Converse Consultants

Office 909 796-0544

Fax 909 796-7675

Cell 951 264-5145

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Sent: Thursday, December 29, 2005 12:28 PM
To: jprescot@ospr.dfg.ca.gov; dorsk@rb9.swrcb.ca.gov
Cc: Long, Brad; jewelch@meritoil.com; jwellons@shieldengineering.com; Daniel Bamberg; John R. Ziegler(Monr.); Stanley G. White(CM)
Subject: Laboratory Results and Table for Qualcom Stadium

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William Ragsdale

Project Environmental Scientist
Converse Consultants
Office 909 796-0544
Fax 909 796-7675
Cell 951 264-5145

Sionit, Nasser

From: Long, Brad
Sent: Friday, December 30, 2005 8:25 AM
To: McCandless, George; Sionit, Nasser
Cc: Burton, Todd; Cammall, David; Vent, Nick
Subject: FW: Results from San Diego River/Outfall soil removal
Attachments: Maps.pdf

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Cc: Long, Brad; Daniel Bamberg; jwelch@meritoil.com; jwellons@shieldengineering.com; John R. Ziegler(Monr.); Stanley G. White(CM)
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Please review the results and comment.

FYI BG4 is from the outfall to the west

William Ragsdale

Project Environmental Scientist
Converse Consultants
Office 909 796-0544
Fax 909 796-7675
Cell 951 264-5145

Sionit, Nasser

From: McCandless, George
Sent: Tuesday, December 27, 2005 9:49 AM
To: Sionit, Nasser
Subject: FW: minutes of the first meeting

Attachments: minitues of the first meeting



minitues of the first
meeting

Nasser,

FYI - Qualcomm Tanks Fire Minutes.

Please let Dan Bamberg, Grace Lowenberg, and me know when the responsible party (Van Dyke Tank Lines) applies to the Voluntary Assistance Program.

Thanks George

-----Original Message-----

From: Daniel Bamberg [mailto:DBamberg@sandiego.gov]
Sent: Tuesday, December 27, 2005 9:34 AM
To: McCandless, George
Subject: Fwd: minitues of the first meeting

George:

Let me know when the responsible party (Van Dyke Tank Lines) applies to the Voluntary Assistance Program. Mr. Ragsdale said he would get right on it.

Dan

McCandless, George

From: Long, Brad
Sent: Thursday, December 22, 2005 4:05 PM
To: McCandless, George; Sionit, Nasser
Cc: Burton, Todd; Cammall, David; Vent, Nick
Subject: FW: Results from Background sampling
Attachments: Lab Results 122005.pdf

George, Nasser

You will probably get the attached sample results as Van Dyke enters the VAP. In short the BGx samples are to establish background in the river area. The P1 sample was pulled to determine how far to dig to remove the contamination that exceeds the Hazardous Waste levels.

On Friday NRC will remove about 1' of soil in the are immediately around the storm drain exit, Pond 1.

After that my only area of continued interest are the soils below the utility box at the point of the turnover. Work in the area is not sechulded to begin until after Jan 1. In the mean time the consultant is going to pull more samples in the same area and review RWQCB.

Brad Long
w-619-338-2216

c-619-778-4917

From: William L. Ragsdale(Red.) [mailto:WRagsdale@ConverseConsultants.com]
Sent: Thursday, December 22, 2005 2:30 PM
To: jprescott@ospr.dfg.ca.gov; dorsk@rb9.swrcb.ca.gov; Long, Brad
Cc: dbamberg@sandiego.gov; John R. Ziegler(Monr.); Stanley G. White(CM)
Subject: Results from Background sampling

FYI,

attached are a copy of the results from the background sampling requested on 12/20/05.

Locations:

BG1 at 0.5 feet, 20 feet east of Pond 1 (up stream)
BG2 at 0.5 feet, 20 feet west of Pond 1 (down stream)
BG3 at 0.5 feet, 20 feet east of Pond 2 at waters edge (up stream)
P1 at 1.0 feet, center of Pond 1(this sample was collected to assist in determining depth of removal)

We are still scheduled to conduct the remedial activities in Pond 1 and 2 on Friday December 23, 2005 (7:00 AM)

Please feel free to contact myself or John Ziegler for any questions

12/27/2005

William Ragsdale

Project Environmental Scientist

Converse Consultants

Office 909 796-0544

Fax 909 796-7675

Cell 951 264-5145

or

John Ziegler

Senior Professional

Converse Consultants


(626) 930-1234

(626) 930-1212 fax

jziegler@converseconsultants.com

Meeting w/ City Atty
 Qualcomm Stadium
 Parker Touch Spide
 12/20/05
 12/23/05



STATE OF CALIFORNIA 

Kelly Dorsey
 Engineering Geologist

California Regional Water Quality Control Board
 San Diego Region
 9174 Sky Park Court, Suite 100
 San Diego, CA 92123-4340
 Internet Website: www.swrcb.ca.gov/rwqcb9

(858) 467-2980 CALNET 734-2980
 dorsk@rb9.swrcb.ca.gov FAX (858) 571-6972



Converse Consultants
 Geotechnical Engineering
 Environmental & Groundwater Science
 Inspection & Testing Services


William Ragsdale, REA
 Project Environmental Scientist

10391 Corporate Drive
 Redlands, CA 92374

TEL (909) 796-0544
 FAX (909) 796-7675
 CELL (951) 264-5145

wragsdale@converseconsultants.com
 http://www.converseconsultants.com



STATE OF CALIFORNIA 

Kristin K. Schwall, P.E.
 Water Resource Control Engineer

California Regional Water Quality Control Board
 San Diego Region
 9174 Sky Park Court, Suite 100
 San Diego, CA 92123-4340
 Internet Website: www.swrcb.ca.gov/rwqcb9

(858) 467-2345 CALNET 734-2345
 schwk@rb9.swrcb.ca.gov FAX (858) 571-6972



Converse Consultants
 Geotechnical Engineering
 and Environmental Sciences

John R. Ziegler, AIA
 Senior Professional

222 E. Huntington Drive
 Suite 211
 Monrovia, CA 91016

TEL (626) 930-1234
 CEL (626) 807-3426
 FAX (626) 930-1212

jziegler@converseconsultants.com
 http://www.converseconsultants.com



THE CITY OF SAN DIEGO

CHERYL LESTER, REA
 Hazardous Materials Program Supervisor
 Environmental Protection Division • Environmental Services

9601 Ridgehaven Ct., Suite 320, MS 1103B • San Diego, CA 92123-1636
 (858) 492-5004 • (858) 492-5089 (FAX)
 email: CLester@sandiego.gov



3500 Estudillo St.
 San Diego, CA 92110

Emergency Response
 1-800-33 SPILL

Kelly Brandenburg
 Operations Manager

3500 Estudillo St.
 San Diego, CA 92110

Phone: 619-235-3322
 Fax: 619-232-4093
 Cell: 619-952-4978
 Cell: 714-412-7188

kbrandenburg@nrccs.com
www.nrccs.com



3500 Estudillo St.
 San Diego, CA 92110

Emergency Response
 1-800-33 SPILL

Victor Murillo
 ER Supervisor
 Resource Coordinator

3500 Estudillo St.
 San Diego, CA 92110

Phone: 619-235-3333
 Fax: 619-232-4092
 Cell: 714-412-7130
 Cell: 619-952-3628

vmurillo@nrccs.com
www.nrccs.com

Qualcomm

McCandless, George

From: Long, Brad
Sent: Monday, December 19, 2005 3:29 PM
To: McCandless, George
Cc: Sionit, Nasser
Subject: FW: Tanker Fire Meeting 12/20

9:00 AM

FYI,

From: Cheryl Lester [mailto:CLester@sandiego.gov]
Sent: Friday, December 16, 2005 2:58 PM
To: jprescot@ospr.dfg.ca.gov; Long, Brad
Subject: Tanker Fire Meeting 12/20

Here are the details for the meeting to bring all the regulators together on this tanker fire incident:

9AM
Qualcomm Stadium
Club #4 - Club Level
Enter through the security office at Gate A

Please let me know if you are able to attend. Call if you have any questions.
Thanks Cheryl
858-492-5004

*(858) 518-3100
Grace Lowenberg*

McCandless, George

From: Long, Brad
Sent: Friday, December 16, 2005 5:11 PM
To: Vent, Nick; McPherson, Mark; McCandless, George; Dorsey, Michael
Cc: Sionit, Nasser; Misleh, John
Subject: RE: Qualcomm clean-up

Just checking in.

I recived an email for the meeting from Cheryl Lester, to attend a meeting at the Stadium, next Tuesday 12/20, at 9am. "We inviting all the environmental regulators that have responded to this incident, the responsible part for the tanker, and the City so together, we can discuss the environmental issues at the site. The focus of the meeting is to bring everyone up to speed on the environmental issues remaining at the site and see which regulator may be taking the lead on the final clean up.

Kelly Dorsey RWQCB 858-467-2980, Has been informally involved in the progress of the clean-up. Last I spoke with her on Thursday Am, she did not know if the RWQCB was going to get fromally involved.

Brad Long

c 619-778-4917

-----Original Message-----

From: Vent, Nick
Sent: Fri 12/16/2005 1:36 PM
To: McPherson, Mark; McCandless, George; Long, Brad; Dorsey, Michael
Cc: Sionit, Nasser; Misleh, John
Subject: RE: Qualcomm clean-up

My understanding is it has been difficult to get RWQCB staff to want to take any action.

From: McPherson, Mark
Sent: Friday, December 16, 2005 1:21 PM
To: Vent, Nick; McCandless, George; Long, Brad; Dorsey, Michael
Cc: Sionit, Nasser; Misleh, John
Subject: RE: Qualcomm clean-up

Just make sure that we are not stepping on the RWQCB's toes.

Mark McPherson
Chief
Land and Water Quality Division
Department of Environmental Health
County of San Diego
5201 Ruffin Road, Suite C
San Diego, CA, 92123
Office: (858) 495-5572

12/19/2005

Fax: (858) 694-3670
MS 0564

HEALTHY PEOPLE IN HEALTHY COMMUNITIES
FREE FROM DISEASE DUE TO THE ENVIRONMENT

From: Vent, Nick
Sent: Friday, December 16, 2005 11:15 AM
To: McCandless, George; McPherson, Mark; Long, Brad; Dorsey, Michael
Cc: Sionit, Nasser; Misleh, John
Subject: RE: Qualcomm clean-up

I agree – this is more likely a RWQCB case at this point than anything DEH would work on.

Nick

From: McCandless, George
Sent: Thursday, December 15, 2005 5:36 PM
To: McPherson, Mark; Long, Brad; Dorsey, Michael; Vent, Nick
Cc: McCandless, George; Sionit, Nasser; Misleh, John
Subject: FW: Qualcomm clean-up

Mark, Mike, Nick, & Brad:

Nasser received a request from Grace Lowenberg with the City Attorney's office for SAM staff to attend Tuesday's meeting at Qualcomm regarding the Tanker Truck Spill.

I just got off the phone with Grace and told her that Nasser or I would be able to attend the meeting to could give an overview of what assistance we could provide through the VAP. I told her that the RWQCB may wish to take the lead in the site cleanup given their work with the Tank Farm.

Thanks, George

From: Sionit, Nasser
Sent: Thursday, December 15, 2005 3:14 PM
To: McCandless, George
Subject: FW: Qualcom clean-up

George:

I received a phone call from one of the City attorneys, Grace Lowenberg, regarding this issue. Grace is the City attorney who arranged several meetings with you, Tony and me about two years ago at the beginning of opening Hanson Aggregate VAP case. She is asking for someone to attend their meeting scheduled for Tuesday, December 20th, at 9 o'clock. I am going to transfer her voice mail message to you for your info. Please advise.

Thank you,
Nasser

12/19/2005

McCandless, George

From: McCandless, George
Sent: Thursday, December 15, 2005 5:36 PM
To: McPherson, Mark; Long, Brad; Dorsey, Michael; Vent, Nick
Cc: McCandless, George; Sionit, Nasser; Misleh, John
Subject: FW: Qualcomm clean-up
Attachments: 2005-354 Official Notice 12-15-05.doc

PHG
Benzine . 0.15
PP6
RRG
6.4 E-1
.64
BUL
VS
Residue #

Tracking:	Recipient	Delivery	Read
	McPherson, Mark	Delivered: 12/15/2005 5:36 PM	
	Long, Brad	Delivered: 12/15/2005 5:36 PM	
	Dorsey, Michael	Delivered: 12/15/2005 5:36 PM	Read: 12/15/2005 7:18 PM
	Vent, Nick	Delivered: 12/15/2005 5:36 PM	
	McCandless, George	Delivered: 12/15/2005 5:36 PM	Read: 12/15/2005 5:36 PM
	Sionit, Nasser	Delivered: 12/15/2005 5:36 PM	
	Misleh, John	Delivered: 12/15/2005 5:36 PM	Read: 12/16/2005 8:06 AM

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Thank you,
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From: Long, Brad
Sent: Thursday, December 15, 2005 12:57 PM
To: Dorsey, Michael; McCandless, George; Sionit, Nasser

Cc: Misleh, John
Subject: Qualcomm clean-up

Mike, Nick, George

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Attached is the most recent Official Notice, I have sent to Van Dyke. As usual this becoming less of a Hazardous waste clean-up and more a ground and surface water issue.

Brad Long
Environmental Health Specialist III
County of San Diego
Dept of Environmental Health
1255 Imperial Ave.
San Diego, Ca 92101
619-338-2216
f 619-338-2139
c 619-778-4917

**MINUTES OF THE TANKER FIRE TASK FORCE
FIRST MEETING – 12/15/05
CENTER CITY PLAZA
11TH FLOOR CONFERENCE ROOM #5**

Present

* Erik Stover	Stadium Manager	641-3102
* John Henze	Civil Investigator	533-6390
* Dan Bamberg	Deputy City Attorney	67729
* Tim Miller	Deputy City Attorney	34513
* Sim Von Kalinowski	Sr. Deputy City Attorney	35803
* Grace Lowenberg	Deputy City Attorney	36459
* Kelly Salt	Deputy City Attorney	66469
* John Serrano	Deputy City Attorney	34512
* Joan Dawson	Deputy City Attorney	533-6292
* Peter Yee	Risk Management	36188
* Cheryl Lester	Environmental Services Department	492-5004

Background

On December 7, 2005 a tanker-trailer owned by Vandyke Transportation overturned on San Diego Mission Road at the entrance to Qualcomm Stadium. Approximately 4,000 gallons of fuel was onboard the vehicle. The fuel spilled, caught fire and contaminated the area. The folks at the first Tanker Fire Task Force meeting were called together in order to coordinate the City's response to the events of December 7th.

Report(s)

Cheryl Lester, the Supervisor of the City's Environmental Services Hazardous Materials Program provided those attending the meeting with a copy of her written report dated December 13, 2005 entitled "Tanker Fire Clean Up Activities and Observations." She summarized her report, telling the group that the responsible party for the December 7th fire and resulting contamination (Vandyke Transportation) had retained a toxic waste

Commerce Consultant
'William's Residence'

"remediation" company (NRC) to do what was necessary to prevent further contamination and initiate clean-up operations.

Cheryl reported that NRC has, thus far, been cooperative and was conducting prevention and clean-up operations as well as could be expected. However, NRC needs direction and is seeking guidance with its continuing efforts to prevent further contamination and to remediate the damage caused by the December 7th spill and fire.

Although representatives from the County Department of Environmental Health, the Regional Water Quality Control Board, and the California Department of Fish and Game have visited the site, none of those agencies has come forward to take the lead in determining clean up actions and to address any residual contamination. NRC and Erik Stover (the General Manager of Qualcomm Stadium) are looking for direction with the continuing effort to "fix the problem(s)."

Of immediate concern, Ms. Lester reported, was the traffic control signal at the entrance to the stadium. This busy intersection is controlled by this traffic light that was contaminated with spilled fuel. There is a possibility that the traffic signal could catch fire and/or fail. NRC has been ventilating the base of the signal, but the situation is still unstable and needs immediate attention.

Erick Stover circulated a summary of the known and anticipated damages incurred by Qualcomm Stadium as a result of the tanker fire. The damages included everything from trees, shrubs and plants that were destroyed to portable toilets that melted from the intense heat.

Dan Bamberg reported that he has been tasked with the responsibility of recovering the expenses incurred by the City when responding to the fire and the expenses that have been or will be incurred by the City to clean up the mess. He told the group that all damage assessments from the various City departments involved in the response to the fire and/or the clean-up of the contamination should be routed to him through his Civil Investigator, John Henze. Also, any reports that address the cause of the roll-over and resulting fire and contamination should be routed through John Henze to him.

Action to be taken

Next Meeting: Cheryl Lester suggested that all (environmental) agencies that are directly and/or indirectly involved in the clean-up and remediation of the site meet and determine what it is that needs to be done. Those agencies also need to get the responsible person (Vandyke Transportation) involved in the process. To that end, it was determined that our group, the relevant agencies, and someone from Vandyke Transportation should meet as soon as practical.

That meeting has been set for Tuesday, December 20th at 9:00 a.m. at Qualcomm Stadium for the environmental agencies, etc. NRC and Vandyke Transportation will be invited to attend at 10:00 a.m.

The following agencies will be invited to attend the December 20th meeting:^{1/}

<u>Agency/Other Entity</u>	<u>Person to Contact the Agency</u>
* Regional Water Quality Control Board	Tim Miller
* County Department of Environmental Health	Cheryl Lester
* San Diego City Attorney's Office	Dan Bamberg, Tim Miller
* California Department of Fish & Game	Cheryl Lester
* Qualcomm Stadium	Erik Stover
* United States Army Corps of Engineers/ United States Coast Guard	Grace Lowenberg
* United States Wildlife and Fish Services	Cheryl Lester
* Vandyke Tank Lines	Dan Bamberg
* NRC Environmental	Dan Bamberg
* Hazardous Materials	Grace
* Risk Management	Peter Yee
* Storm Water Pollution Protection Program	Tim Miller
* Water Department	Grace Lowenberg

Other action to be taken:

Erik Stover will reserve a stadium box for our meeting next Tuesday; will obtain the television newscast(s) of the fire; and, will talk with the Fire Marshall about next Thursday's game and fireworks.

Peter Yee will make an assessment of the risk associated with the broken-up sidewalk and recommend appropriate action.

Tim Miller will coordinate the effort to assess the danger of the streetlight and whether or not to operate the light, etc.

¹ There is no need for the San Diego Police Department or the San Diego Fire Department to attend the meeting because neither will be involved in the remediation efforts.

McCandless, George

From: Long, Brad
Sent: Thursday, December 15, 2005 12:57 PM
To: Dorsey, Michael; McCandless, George; Sionit, Nasser
Cc: Misleh, John
Subject: Qualcom clean-up
Attachments: 2005-354 Official Notice 12-15-05.doc

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Environmental Health Specialist III
County of San Diego
Dept of Environmental Health
1255 Imperial Ave.
San Diego, Ca 92101
619-338-2216
f 619-338-2139
c 619-778-4917

12/15/2005



COUNTY OF SAN DIEGO

OFFICIAL NOTICE -

PAGE 1 OF 4
 DATE 12-15 /2005
 PERMIT #: HIRT 2005-354
 TIME START _____

 END _____
 BUS. CODE V61
 SPECIALIST Long

BUSINESS NAME Van Dyke tank Lines Inc
 ADDRESS Po Box 341,
 CITY/ZIP Bloomington, CA, 92316

OWNER'S NAME _____ PHONE 909-633-1010
 OWNER'S ADDRESS _____ CITY/ZIP _____

An inspection of your business was conducted, under the authority of Section 25185 of the California Health and Safety Code. This inspection was conducted with purpose of determining compliance with Chapters 6.5, 6.7, 6.95 in Division 20, of the California Health and Safety Code (H&S); Titles 19, 22 and 23 of the California Code of Regulations (CCR); and the San Diego County Code (SDCC). **The following statements describe conditions which are violations of the law or that require further investigation.** These observations require a formal response and/or immediate corrective action be taken. Failure to correct these violations or to provide information requested in a timely manner may be a factor in determining the course of further legal action.

NOTE: Reinspection fees may be charged if additional inspections are required to determine compliance.

Re: Hazardous waste cleanup related to the gasoline tanker rollover on 12-07-05, at San Diego Mission Rd. and the N. Entrance to Qualcomm Stadium.

On 12-14-2005 a fallow-up inspection and a review of a Preliminary Sample Analysis Report for samples taken post Initial Clean-up was made at Qualcomm Stadium. The Department of Environmental Health (DEH) currently recommends clean-up of contaminated soils continue at two locations; contaminated soils below the sidewalk/utility box at the tanker location (see Photo 1), and storm water outlet to the San Diego River (see Photo 3). Agencies/Parties Present during the inspection: DEH, NRC, Qualcomm Stadium Management, City of San Diego Streets Division, and Environmental Services. It is recommended all clean-up work be coordinated with Stadium Management and the City of San Diego.

Observation- On 12-14-05 the clean-up contractor NRC, removed contaminated soils accessible from the utility box opening (see photos 1 & 2), from the beneath the utility box/sidewalk at the location of the tanker rollover. Although samples of this area have not been taken Combustible Gas Indicator readings (~54% Lower Explosion Limit (LEL)) of the excavated space indicate significant contaminated soils remain. Continued removal of soils from this area is not accessible without removal of the sidewalk.

Recommended Action- Continue to remove observable contaminated soils in the observed area. Collect and analyze samples, post contaminated soil removal, to evaluate effectiveness of clean-up. Be advised this work will require the removal of the sidewalk, and must be coordinated with Stadium Management, and City of San Diego Streets Division. Initial discussions indicate this work will continue after Jan 01-06 due to Stadium Events. Although fire danger is unlikely it is recommended the excavation beneath the utility box be back filled with soil to prevent accumulation of flammable vapors, until clean-up continues.

Observation- Preliminary Sample Report Results of samples taken at the storm drain outlet, Pool 1 (see photo 3) , indicate levels of Benzene (3080 ug/kg & 2630 ug/kg) above hazardous waste standards (Benzene 0.5 mg/l, California Code Regulations (CCR) Title 22, Section 66261.24). Sample results for the Pool 2 location do not exceed hazardous waste (Benzene) levels.

Recommended Action- Remove observable contaminated soils in the pool 1 area of the storm drain outlet. Collect and analyze samples, post soil removal, to evaluate clean-up effectiveness. Contact then ARMY CORP OF ENGINEERS -S.D. REGULATORY BRANCH, Stacy Jenson 858-674-7641 for guidance on requirements for soil removal in this area.

Observations A review of the Preliminary Sample Report Results of soil samples taken on the soil embankment indicate the remaining contamination is below hazardous waste levels previously cited. Be advised a review of the Final Sample Report is needed; pending review additional clean-up in this area may be required. Please fax a copy of the Final Sample Report to 619-338-2139, Attn Brad Long



COUNTY OF SAN DIEGO

OFFICIAL NOTICE -

PAGE 2 OF 4
 DATE 12-15 /2005
 PERMIT #: _____
 TIME START _____ END _____
 BUS. CODE V61
 SPECIALIST Long _____
 INSPECTION CONTACT/TITLE
 Jim Welch

BUSINESS NAME Van Dyke tank Lines Inc
 ADDRESS Po Box 341,
 CITY/ZIP Bloomington, CA, 92316

Observation- CGI readings of the conduit risers in all the utility boxes do not indicate any significant contamination.

Observation- NRC removed observable contaminated soils from the utility box directly adjacent to the North Entrance Gate (see photo 1). CGI readings of utility box excavation indicate no significant contamination remains, no fire danger.

Observation- CGI readings of utility boxes on the north and west corners of the affected intersection indicate no fire danger.

Be advised the Regional Water Quality Control Board may require/request additional cleanup actions. It is recommended you contact the board for guidance.

Questions regarding this Notice may be directed to Brad Long W 619-338-2216, C 619-778-4917

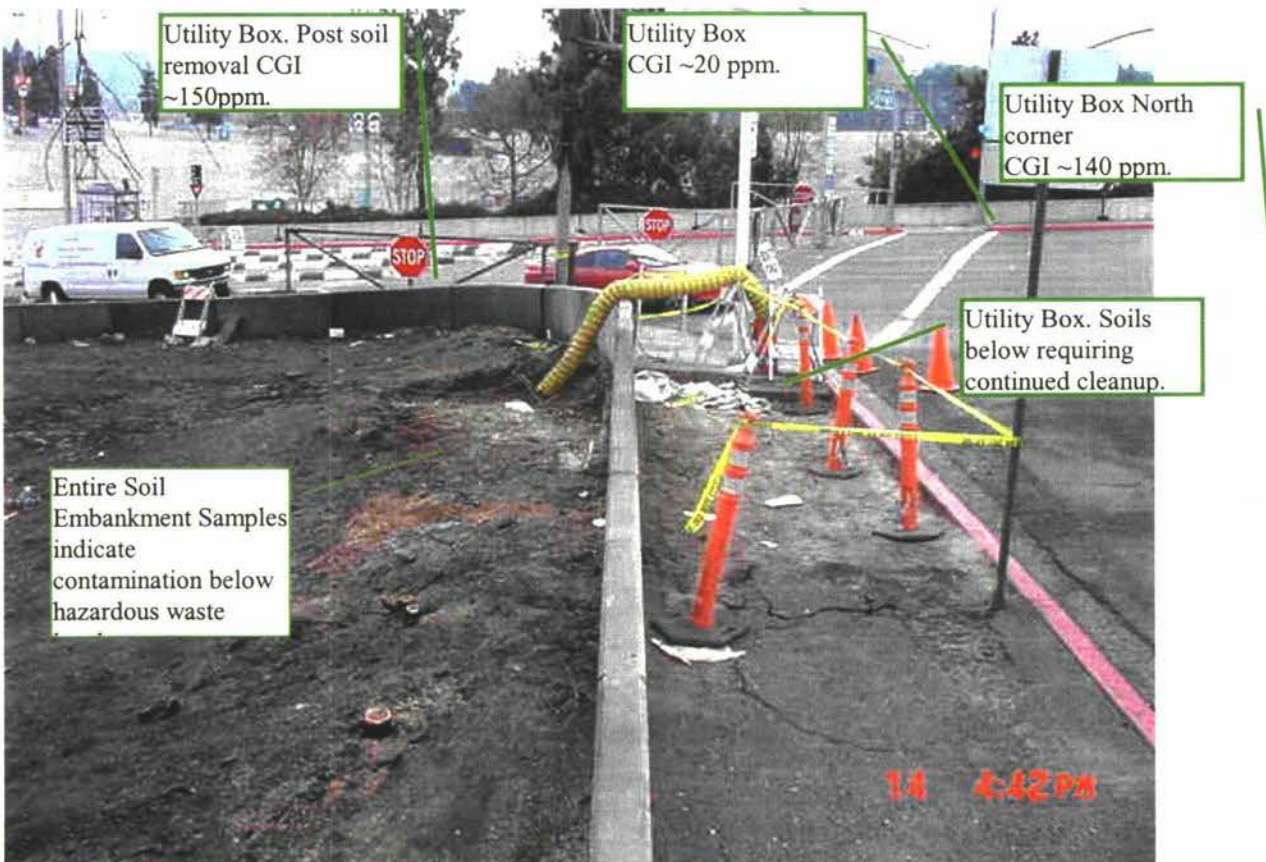


Photo 1 taken 12-14-05, Location- intersection of San Diego Mission Rd and the North entrance to the Qualcomm Stadium Parking lot looking west. The area surrounded by banner tape in the location of the tanker rollover.

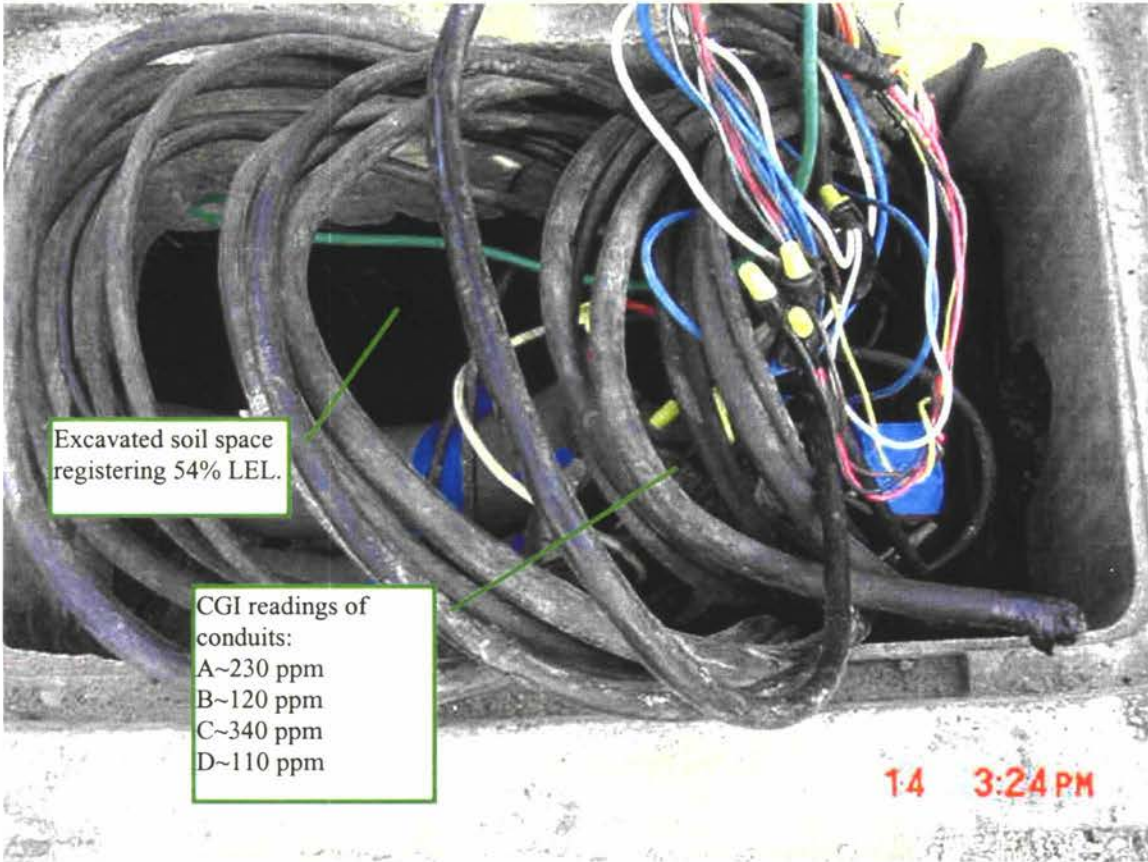


COUNTY OF SAN DIEGO

OFFICIAL NOTICE -

PAGE 3 OF 4
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BUSINESS NAME Van Dyke tank Lines Inc
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Excavated soil space
 registering 54% LEL.

CGI readings of
 conduits:
 A~230 ppm
 B~120 ppm
 C~340 ppm
 D~110 ppm

14 3:24 PM

Photo 2 taken 12-14-05, Location- intersection of San Diego Mission Rd and the North entrance to the Qualcomm Stadium Parking lot, looking into the utility box requiring continued clean-up.



COUNTY OF SAN DIEGO

OFFICIAL NOTICE -

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Photo 3 taken 12-14-05, Location- intersection the storm drain outfall from the Qualcomm Stadium parking lot into the San Diego river basin.

PRINT FULL NAME: _____ DATE: ____/____/____

 (SIGNATURE OF ESTABLISHMENT REPRESENTATIVE)
 JOB TITLE: _____

IDENTIFICATION (CA DRIVER'S LICENSE #, OR DATE OF BIRTH) _____

 SIGNATURE OF ENVIRONEMTNATL HEALTH SPECIALIST _____ / ____/____ Date

If this box is checked, provide written documentation of compliance with this notice to this office within 5 days. Section 66272.1 (d) of the CA Code of Regulations requires, that at a minimum, this documentation must state:

1. The corrective action to be taken, and
2. The expected date of completion.

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Sent: Thursday, December 15, 2005 12:57 PM
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Cc: Misleh, John
Subject: Qualcom clean-up

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**MINUTES OF THE TANKER FIRE TASK FORCE
FIRST MEETING – 12/15/05
CENTER CITY PLAZA
11TH FLOOR CONFERENCE ROOM #5**

Present

* Erik Stover	Stadium Manager	641-3102
* John Henze	Civil Investigator	533-6390
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* Tim Miller	Deputy City Attorney	34513
* Sim Von Kalinowski	Sr. Deputy City Attorney	35803
* Grace Lowenberg	Deputy City Attorney	36459
* Kelly Salt	Deputy City Attorney	66469
* John Serrano	Deputy City Attorney	34512
* Joan Dawson	Deputy City Attorney	533-6292
* Peter Yee	Risk Management	36188
* Cheryl Lester	Environmental Services Department	492-5004

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Peter Yee will make an assessment of the risk associated with the broken-up sidewalk and recommend appropriate action.

Tim Miller will coordinate the effort to assess the danger of the streetlight and whether or not to operate the light, etc.

¹ There is no need for the San Diego Police Department or the San Diego Fire Department to attend the meeting because neither will be involved in the remediation efforts.

QUALCOMM ROLLOVER FIRE



HAZMAT PHOTOS

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Spill Report

for

APEX Tank Lines, Inc.

Ethanol Spill Response

*Qualcomm Stadium
San Diego Mission Road and Mission Village Drive*

April 7, 2013



Prepared By:

*Kelly Brandenburg
Operations Manager/Project Manager*

*NRC Environmental
2950 Kurtz Street
San Diego, California 92110*

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- Appendix B – Maps
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1. INTRODUCTION

The purpose of this report is to document clean-up activities for the Apex Tank Lines, Inc. tanker rollover at Qualcomm Stadium. This report is based on daily activity reports, manifests, field notes, other documentation and verbal communication by NRC personnel. This report is not intended to serve as an environmental site assessment or to fulfill any legal or regulatory requirements.

2. PROJECT SPECIFIC SCOPE OF WORK

On April 7, 2013 at 2030 hours NRC Environmental Services, Inc (NRC) responded to a rolled tanker containing ethanol with trace gasoline spill at the main entrance of Qualcomm Stadium. The tanker had baffled compartments. The tanker held approximately 8,000 gallons of ethanol with trace gasoline. NRC recovered approximately 4,500 gallons (2,000 un-spilled out of damaged tanker, 2,500 out of puddles and in parking lot storm drain). An estimated 3,500 gallons of spilled liquids impacted the site. The impact of the spill affected to two distinct areas.

Area A

The point of release was at the corner of San Diego Mission Drive and Mission Village Road (main entrance of Qualcomm Stadium). Area A is defined as point of impact down the main entrance ramp of the Stadium and into the storm drain catch basin in the Northeast Parking Lot of Qualcomm Stadium. The storm drain was impacted from catch basin 1 through catch basin 7 (See Map Section). Soil berm was placed in the parking lot after impact to storm drains. Spilled liquids puddled on asphalt surface near entrance to stadium. Sand was dumped into catch basin 7 and catch basin 8 to prevent further spread of spilled liquids.

Area B

Area B is defined as impact to San Diego Mission Road between Mission Village Drive and the entrance to Kinder Morgan Tank Farm, including the Qualcomm parking area along San Diego Mission Drive. The street surface, curb, gutter and Qualcomm parking lot in this area were impacted by the spill. A sand berm was placed along curb across from the Kinder Morgan entrance that prevented the spill from reaching a storm drain on San Diego Mission Road. Rather, the spilled liquids entered into Qualcomm parking lot due to overflow from San Diego Mission Road.

A summary of spill response activities in each area is presented below. In order to highlight major spill response activities, some activities, personnel and equipment utilized during the spill response may not be described in this report:

April 7, 2013

- 2030 Received call from Apex Tank Lines, Terry Sheff, to respond to a rolled tanker loaded with ethanol with trace gasoline at main entrance to Qualcomm Stadium, San Diego, CA
- 2105 NRC's Victor Murillo arrived at incident command post located in the parking lot north of the Qualcomm entrance on Mission Village Dr. San Diego Fire Chief Glen Holder out of Battalion 7 was commander with County of San Diego, DEH Dave Cammall.
- 2130 NRC crew arrives at Lowe's parking lot and stages until Incident Command secures the site and allows access. Incident Command decides to dump sand into storm drains around ring of Qualcomm Stadium (Area A) to stop it from reaching the creek.
- 2200 Incident Command decides to allow NRC trucks access to site to start pumping down the spilled liquids that are puddling in the Qualcomm parking lot in Area A and Area B.
- 2300 Incident Command decides to approach cold tapping the tanker to allow NRC to pump out the product remaining in the damaged tanker.

April 8, 2013

- 0130 Incident Command gave the official go-ahead to allow NRC to begin vacuuming pools of spilled liquids from the parking lot and road.
- 0200 NRC begins transferring un-spilled liquids from damaged Apex tanker into NRC vacuum truck.
- 0330 All storm drain access grates in Area A, which is within the Northeast Section of Qualcomm's Parking Lot, are covered with visqueen and sandbags to ensure nothing (cigarette butts, water, debris) enters the contaminated storm drains.
- 0530 Damaged tanker is set upright and towed away. NRC vacuum truck loaded with approximately 2000 gallons of ethanol from the damaged tanker is offloaded into an APEX tanker for return/salvage of product.
- 0600 Two NRC vacuum trucks captured approximately 2500 gallons of spilled liquids from puddle recovery efforts. LEL levels in storm drains at 27% LEL methane calibrated results.
- 0630 NRC delivers roll-off bins while skidsteer loads berm sand from San Diego Mission Road into bins for storage. Three small NRC crews use pressure washers to wash contaminated street and sidewalk in Area A and Area B. Vacuum trucks collect rinsate water from two sides.
- 1200 Pressure washing the street, sidewalks and berms is completed.
- 1230 Guzzler operations begin at catch basin #7 and continue to catch basin #8 to remove sand that was dumped into the storm drain to prepare for jetting. Free product found and removed with vacuum truck. Vacuum truck pumps out Arcadis' monitoring well basin near San Diego Mission Road.
- 1400 Storm drain culverts were measured for jetting preparation. Damaged asphalt is measured.
- 1530 Decontaminate Guzzler. Crew moved to manhole #1 that runs from San Diego Mission Road to culvert and pumped out approximately 1500 gallons of liquid

from the manhole in response to City of San Diego's (Antonius Evans) request. DEH detected 20% LEL on the prior evening. The manhole recharged immediately and vacuum efforts ceased until more investigation could occur.

- 1630 Day crew begins demobilization. Night crew begins mobilization. Night crew continues washing stained asphalt areas in parking area. Refuel all vehicles, clean up trailers, transfer and consolidate liquid waste into 2 x 120 BBL, move all equipment into new staging area, pick up and line another 20 yard bin for following day operations, restock trailers provide security for all NRC equipment onsite and general housekeeping.

April 9, 2013

- 0600 Crew holds safety meeting and begins to setup jetting operations.
- 0800 Jack Prescott with Department of Fish and Wildlife requests a secondary plug install to ensure no breach. Mr. Prescott issues an ICS 202 Incident Objective Form with instructions.
- 0900 Site walk with Mr. Prescott. Objective added to sample the standing water for ethanol between San Diego Mission Road and Murphy Canyon Road runoff ditch.
- 1000 Jetting crew finds 6 inch rocks in storm drain and must make entry to remove rocks. Crew must move plug each time they finish a stretch of pipe. Air monitoring continues.
- 1030 Meeting at Qualcomm Stadium with stadium staff to discuss objectives and upcoming events at the stadium. At conclusion of meeting, we decided to gather some additional information and Water Board personnel then meet again at 4pm.
- 1200 County DEH and Federal EPA arrive to site and check LEL levels. County Hazmat assigns re-cleaning of surface near entrance.
- 1230 Crew continues jetting storm drain.
- 1600 Meet with Qualcomm Stadium personnel to summarize daily activities.
- 1700 Day crew begins demobilization. Jetting crew finished storm drain cleaning between catch basins #7, 8, and 9. Night crew begins mobilization.
- 1715 Wash asphalt of outlined area again per County Hazmat's requirement.
- 1800 Refuel all vehicles, clean up trailers, move all equipment into staging area, core sampling, take meter readings, create site map, calibrate meters, restock trailers provide security for all NRC equipment onsite and general housekeeping.

April 10, 2013

- 0600 Crew holds safety meeting and begins to setup jetting operations.
- 0630 Jetting operations at catch basin #6 and continue towards the west. Found pool of pure product between catch basin #4 and 5. Use vacuum truck to remove all liquids.
- 1030 Meeting held at City of San Diego facility on Ridgeline Court to discuss present actions, next steps, cost recovery and VAP process. The City of San Diego requests additional sampling in two soil areas they identified. The first sampling located near the entrance to the stadium and the second near the Arcadis vault.
- 1200 Sample the soil areas in the parking lot. One located near the entrance where a tree may have been and the other by the Arcadis collection vault.

- 1230 Continue jetting storm drain from catch basin #5 towards the west.
- 1600 Results from standing water between San Diego Mission Road and Murphy Canyon Road runoff come back non-detect for methanol and ethanol.
- 1730 Jetting concludes at catch basin #3. Day crew begins demobilization, night crew begins mobilization and holds safety meeting.
- 1800 Refuel all equipment, clean trailer, move equipment into staging area, calibrate meters, restock trailers, provide security for all NRC equipment and waste onsite, and general housekeeping.

April 11, 2013

- 0600 Crew holds safety meeting and begins to setup jetting operations.
- 0630 Jetting operations at catch basin #3 and continue towards the west.
- 1030 City of San Diego Environmental Services (Joy Newman and Andy Cerin) arrive with Regional Water Board representatives (Craig Carlisle and Tony Felix). Conduct another site walk to explain the event and cleanup activities. Upon conclusion, the Water Board was happy with the ongoing efforts but requested a condensed report of the event prior to their release. Ms. Newman reported that she is going to recommend to the City of San Diego that APEX complete the VAP Program in order for the City to agree that the property has been returned whole.
- 1200 Crew is jetting between catch basin #1 and 2 when they encountered a blockage. They were able to make entry and remove the blockage, which turned out to be broken concrete that appeared to be pieces of the drain. The crew isolated the area with a plug and BMPs over the drain grate. A camera will be used to identify the issue once the Qualcomm lot is open again.
- 1230 Continue cleaning catch basin 1 and light spray between catch basin #1 and 2. Begin offloading the 70BBL and transferring solids into roll-off bin.
- 1400 County of San Diego DEH representatives, Dave Cammall and Brad Long, arrive to test the storm drain for clearance. They determine at end of inspection that there are no immediate threats to human life. They request that we seal the cracks of the broken asphalt near the entrance puddle because they were getting high LEL levels in the cracks. Additionally, they suggested that the responsible party continue through the VAP process to clear the site of all environmental hazards.
- 1730 Day crew begins demobilization, night crew begins mobilization and holds safety meeting.
- 1800 Refuel all equipment, clean trailer, move equipment into staging area, calibrate meters, restock trailers, provide security for all NRC equipment and waste onsite, and general housekeeping.

April 12, 2013

- 0600 Crew holds safety meeting and begins to demobilize from site.
- 0630 –
- 1430 Move rolloff bins to corner of the property. Setup temporary fence around rolloff bins. Remove secondary storm drain plug near outfall. Transport all equipment offsite and return it to the San Diego yard. Two rolloff bins and one pipe plug remain onsite.

April 24, 2013

- 0630 Start time at the NRC yard in San Diego, CA
- 0715 Arrived at the Qualcomm Stadium and begin removing temporary fence and signing manifest for bin disposal to South Yuma County Landfill.
- 0730 Begin removing BMPs from storm drain catch basin # 1 and immediately after begin deflating storm drain pneumatic plug.
- 0800 Set up tripod and winch for confined space entry in order to remove pneumatic storm drain plug.
- 0905 Place ROVVER IPEK 125 into storm drain pipe and begin the video inspection of storm drain pipe section of catch basin #1 towards catch basin#2.
- 0935 ROVVER was not able to pass through concrete and asphalt debris at approximately 83 feet into the storm drain pipe from catch basin# 1 towards catch basin#2.
- 0940 Change out tires on ROVVER with larger tires than previously installed.
- 1030 Set up tripod and winch at catch basin #2 and placed ROVVER into storm drain pipe in the direction of catch basin #1.
- 1040 Catch basin #2 towards catch basin # 1 distance on ROVVER gauge begins at 284 feet. There is an approximately 200 feet distance from catch basin #2 to catch basin #1.
- 1140 Storm drain inspection video has been completed between catch basin #2 and catch basin #1 and ROVVER has been removed.
- 1200 Lunch
- 1230 Place ROVVER into catch basin #2 towards catch basin #3 in order to begin storm drain pipe video inspection.
- 1400 Remove ROVVER from catch basin #5 \and place storm drain catch basin grate.
- 1430 Demobilize equipment from site and return to NRC yard in San Diego, CA.

3. SAMPLING SUMMARY

The following summarizes the sampling activities that were conducted by NRC from April 7 to April 19, 2013, at which time the client entered the Voluntary Assistance Program through DEH. NRC hired SCS Engineers to manage the future sampling on the site in an effort to get closure for the client through the VAP process.

Solid Waste Disposal Sampling

Two rolloff bins containing sand contaminated with ethanol were generated and staged in a secure location in the parking lot of Qualcomm Stadium. The sand was used for berms and placed on the road, in the parking lot and in the storm drains to prevent further contamination of the site. Skidsteer loader was used to pick up and store all contaminated solids in two lined rolloff bins. Each bin was sampled using composite method and tested for BTEX, Flash Point and Fish Bioassay. Results are found in Appendix A.

Parking Area Sampling

Per the request of the City of San Diego, Environmental Services group, two areas nearby the puddles were sampled. PK1 is from a small square of soil located at the entrance of the stadium where a tree or lamp post may have been. PK2 is a small area of gravel located near the Kinder Morgan monitoring well vault along San Diego Mission Road. Maps are found in Appendix B. Both samples were taken via grab method and tested for VOCs plus fuel oxygenates (8260B) and Non-Halogenated Organics (8015B/D). Sample PK2 was confirmed before the report was released for both methods and results are indicated below:

EPA 8015B Ethanol

04/11/13	1.1 mg/kg
04/16/13	1.4 mg/kg

EPA 8260B Ethanol

04/13/13	ND (0.25 mg/kg)
04/16/13	ND (0.25 mg/kg)

Manhole Sampling

There is a manhole in the Qualcomm parking lot in between San Diego Mission Drive and Murphy Canyon Road runoff ditch. On the night of the spill, DEH detected the presence of a VOC in the manhole. At the time, it was unknown as to whether this manhole was impacted with spilled liquids or whether the VOCs were from another source. On April 8, 2013, NRC removed approximately 1500 gallons of water from this manhole per the request of the City of San Diego's Antonius Evans. The manhole recharged with water, at which time it was determined that the Murphy Canyon Road runoff ditch was feeding the manhole an endless supply of water. Jack Prescott with Department of Fish & Wildlife issued via ICS that the manhole be tested for ethanol on April 9. On April 12, City of San Diego requested that VOCs be added due to the MSDS that showed trace gasoline in the spilled load. A grab sample was taken on April 9 in an unpreserved glass vial with zero head space. The sample was sent to laboratory on the same day. On the same chain of custody, a sample was taken from each of the NRC vacuum tankers that were onsite (Units 3345 and 2064). There is no further discussion about the tanker samples as they do not impact cleanup, merely disposal options.

Initial results of manhole sample indicated non-detect for Ethanol via 8015B. When VOCs 8260B were run, a .55 ppm Ethanol was detected. Manhole sample was re-analyzed for Ethanol by both EPA 8015B and EPA 8260B using new sample aliquots. The EPA 8015B Ethanol re-analysis confirmed the initial non-detect result. The EPA 8260B Ethanol re-analysis did not confirm the initial positive result; the re-analysis result is non-detect.

As of April 15, Mr. Prescott determined no further action was necessary on manhole or Murphy Canyon Road runoff due to non-detect of Ethanol.

Core Sampling in Damaged Asphalt Areas

On April 10, NRC crew used a drill to penetrate the asphalt and pull approximately 6 inches of soil under asphalt for sampling purposes. The asphalt was approximately four inches thick. The core sample locations were selected in areas where large cracks existed which would imply that spilled liquids could have impacted the soil below the asphalt in those particular areas. The core drill pulled a six inch depth sample that was immediately placed into a glass jar with no head space and delivered to laboratory for analysis. There were a total of four samples taken, two from each puddle area. Core sample 1 and Core sample 2 were taken in the puddle area near San Diego Mission Road. Core sample 3 and Core sample 4 were taken in the puddle area near the main entrance of Qualcomm Stadium. All samples were tested for VOCs plus fuel oxygenates (8260B) and Non-Halogenated Organics (8015B/D). Results are included in Appendix A.

4. DISPOSITION OF WASTE GENERATED BY CLEAN-UP

Liquid Wastes

Manifest Number	Description	Transporter	Approx. Quantity
009905151JJK	NON-RCRA HAZ WASTE LIQUIDS (ETHANOL WITH WATER)	NRC	4374 Gallons
009905152JJK	NON-RCRA HAZ WASTE LIQUIDS (ETHANOL WITH WATER)	NRC	4075 Gallons
009905155JJK	NON-RCRA HAZ WASTE LIQUIDS (ETHANOL WITH WATER)	NRC	4240 Gallons
009905156JJK	NON-RCRA HAZ WASTE LIQUIDS (ETHANOL WITH WATER)	NRC	3400 Gallons
Total Liquid Waste			16,089 gallons

Solid Wastes

Manifest Number	Description	Transporter	Approx. Quantity
75095-1	NON-HAZ WASTE SOLID (SOIL WITH TRACE ETHANOL)	NRC	15.28 TONS
75095-2	NON-HAZ WASTE SOLID (SOIL WITH TRACE ETHANOL)	NRC	18.28 TONS
Total Solid Waste			33.56 TONS

RECEIVED

APR 25 2013

P.O. BOX 129261
SAN DIEGO, CA 92112-9261
ATTN: NASSER SIONIT
(858) 505-6795
(858) 505-6848 (FAX)
www.sdcounty.ca.gov/deh/waste/contamination.html

ENVIRONMENTAL
HEALTH



FOR OFFICE USE:

Date Received 4-25-2013

Submittal Fee Paid \$1,420.00

File # DEH2013-LSAM-000173

Ethanol spill
No RFD
JS 4-25
CH 4-25

COUNTY OF SAN DIEGO
DEPARTMENT OF ENVIRONMENTAL HEALTH (DEH)

VOLUNTARY ASSISTANCE PROGRAM
APPLICATION FOR ASSISTANCE

(PLEASE READ BOTH PAGES OF THIS APPLICATION PRIOR TO COMPLETION)

A. Site Name Qualcomm Stadium Parking Lot Northeast Assessors Parcel Number
Site Address 9449 Friars Road, San Diego, CA 92108 433-250-13-00
(Please include Street, City, State, and Zip Code)

B. Application Submitted By: to receive bills
Contact Person Kelly Brandenburg Telephone 619-952-4978 Fax 631-615-7084
Company Name NRC Environmental Services Inc. E-mail Address kbrandenburg@nrcc.com
Mailing Address 2950 Kurtz Street, San Diego, CA 92110
(Please include Street, City, State, and Zip Code)
Notes: 1. Applicant is responsible for payment to the County. Invoices will be sent to the applicant at this address unless other arrangements are made.
2. DEH requires all applicants to electronically upload all reports and work plans to the State Water Resources Control Board's GeoTracker database.

C. Property Owner* The City of San Diego, by Interim COO Scott Chadwick Signature
Telephone (619) 533-5800 E-mail Address cwelch@sandiego.gov
Mailing Address c/o R. Clayton Welch, 1200 Third Avenue, Suite 1100, San Diego, CA 92101
(Please include Street, City, State, and Zip Code)
* Note: Property Owners have the ultimate responsibility to ensure that all environmental issues associated with their property are resolved in accordance with all applicable standards, guidelines, and regulations.

D. Brief project description and type of assistance requested: On April 7, 2013, an Apex Tank Lines, Inc. driver rolled a tanker containing approx 8000 gallons of ethanol with trace (1-5%) gasoline at the intersection of San Diego Mission Road and Mission Village Dr. Approx 2000 gallons of product was pumped out of the damaged tanker. Approx 2500 gallons was recovered from puddles contained in the Qualcomm parking lot. Approx 3500 gallons impacted the storm drain and surface area of the Qualcomm Parking Lot. Response efforts were made to remediate the affected storm drain and surface of the parking lot. On April 11, 2013, County of San Diego DEH, determined that there was no longer an immediate threat to life. On April 16, 2013, analysis revealed that ethanol had contaminated soil below the asphalt in two areas of the parking lot. The responsible party is applying for assistance to obtain regulatory clearance on this release.

E. Do you foresee your project cost to be higher than \$1,000,000.00?
 No
 Yes
If yes, have you completed a CEQA report? No Yes Has public notification been conducted? No Yes

I accept the application requirements and project review conditions listed on Page 2 of 2 and I agree to pay all costs associated with DEH staff time and services within 30 days of receiving an invoice.

Kelly Brandenburg
Original Signature of Applicant

Kelly Brandenburg
Printed Name

4-19-13
Date



County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION

P.O. BOX 129261, SAN DIEGO, CA 92112-9261
858-505-6700/FAX 858-505-6848/1-800-253-9933

www.sdcdelh.org

ELIZABETH POZZEBON
ASSISTANT DIRECTOR

February 11, 2014

Ms. Kelly Brandenburg
NRC Environmental Services, Inc.
2950 Kurtz Street
San Diego, CA 92110

Dear Ms. Brandenburg:

VOLUNTARY ASSISTANCE PROGRAM, CASE #DEH2013-LSAM-000173
QUALCOMM STADIUM PARKING LOT NORTHEAST
9449 FRIARS ROAD, SAN DIEGO, CA 92108

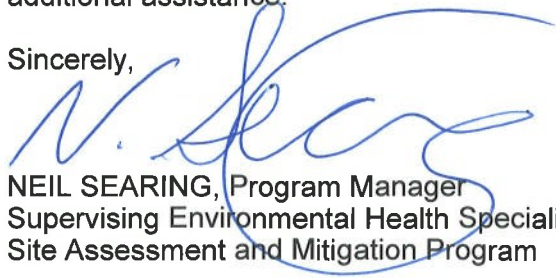
The Department of Environmental Health (DEH), Site Assessment and Mitigation Program (SAM), reviewed the environmental investigation reports related to the above-referenced property, prepared by SCS Engineers on June 14, 2013 and December 20, 2013. The reports summarize the site investigation activities performed at the above-referenced location. Provided that the information presented to DEH was complete, accurate, and representative of existing site conditions, **this agency concurs that the cleanup goals established for the subject site have been met.**

Please be advised that this letter does not relieve the responsible party of any liability under the California Health and Safety Code or the Porter Cologne Water Quality Control Act. If previously unidentified contamination is discovered which may affect public health, safety and/or water quality, additional site assessment and cleanup may be necessary.

The DEH understands that the present land use for the Site is commercial. Changes to this land use may require reassessment of the property to determine if the revised land use could result in a risk to public health.

Thank you for selecting the DEH as your lead agency to assist you with the progress of your environmental project. Please contact Colleen Hines of SAM, at (858) 505-6874, if you require additional assistance.

Sincerely,



NEIL SEARING, Program Manager
Supervising Environmental Health Specialist
Site Assessment and Mitigation Program

Enclosure

cc: Mr. R. Clayton Welch, Office of the San Diego City Attorney
Ms. Joy Newman, City of San Diego
Mr. Keith Etchells, SCS Engineers

"Environmental and public health through leadership, partnership and science"

Case Closure Summary

Non-LOP or Voluntary Assistance Program

I. AGENCY INFORMATION

DATE: 2/11/2014

Agency Name: COUNTY OF SAN DIEGO, ENVIRONMENTAL HEALTH, SAM	Address: P.O. BOX 129261
City/State/ZIP: SAN DIEGO, CA 92112-9261	Phone: (858) 505-6874 FAX: (858) 505-6891
DEH Staff Person: COLLEEN HINES	Title: ENVIRONMENTAL HEALTH SPECIALIST II

II. CASE INFORMATION

Case No. LSAM-000173	RWQCB Case No.: N/A	
Site Name: QUALCOMM STADIUM PARKING LOT NORTHEAST	Site Address: 9449 FRIARS ROAD, SAN DIEGO, CA 92108	
Property Owner	Address	Phone Number
THE CITY OF SAN DIEGO, C/O R. CLAYTON WELCH	1200 THIRD AVENUE, SUITE 1100, SAN DIEGO, CA 92101	619-533-5800
Responsible/Requesting Parties	Address	Phone Number
KELLY BRANDENBURG, NRC ENVIRONMENTAL SERVICES, INC.	2950 KURTZ STREET, SAN DIEGO, CA 92110	619-952-4978
Type of Case: NON TANK CASE (VAP)		
Agency notification of DEH Oversight: DTSC: 4/25/2013 RWQCB: 4/25/2013		

III. SITE CHARACTERIZATION AND/OR INFORMATION

Purpose of Investigation: OVERSIGHT OF INVESTIGATION OF ETHANOL SPILL	Substances Investigated: ETHANOL WITH TRACE GASOLINE		
Site Characterization complete? YES, 1/24/2014			
Monitoring Wells Installed? NO	Total Number: N/A	Proper Screened Interval? N/A	Number of decommissioned wells: N/A
Range of groundwater levels on the site? APPROXIMATELY 43-45 FEET (MEASURED)		Groundwater Flow Direction: NORTHWEST	
Most Sensitive Current Use: Beneficial Groundwater Use: AGR, IND, PROC AND POTENTIAL: MUN Existing Beneficial Surface Water Use: AGR, IND, REC1, REC2			
Are Drinking Water Wells Affected? NO	RWQCB Basin Number: 907.11 - MISSION SAN DIEGO HYDROLOGIC SUB AREA		
Is Surface Water Affected? NO	Nearest Surface Water name: SAN DIEGO RIVER APPROXIMATELY 2,000 FEET TO SOUTH		
Off-Site Beneficial Use Impacts (addresses/locations): NONE			
TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal)	Date
SOIL	36 CUBIC YARDS (33.56 TONS)	DISPOSAL OFF-SITE / SOUTH YUMA COUNTY LANDFILL	4/24/2013
WASTE WATER	16,000 GALLONS	DISPOSAL OFF-SITE / DEMENNO KERDOON	4/10-4/12/2013

Non-LOP - Underground Storage Tank Oversight handled outside the LOP

Case Closure Summary
Non-LOP or Voluntary Assistance Program

III. SITE CHARACTERIZATION AND/OR INFORMATION (Continued)

LSAM-000173

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS	MAXIMUM	REMAINING
SOIL		
ETHANOL	= 7,800 mg/kg	= 63 mg/kg
BENZENE	< 0.005 mg/kg	< 0.005 mg/kg
TOLUENE	< 0.005 mg/kg	< 0.005 mg/kg
ETHYLBENZENE	= 0.02 mg/kg	= 0.0068 mg/kg
XYLENES (TOTAL)	= 0.146 mg/kg	= 0.04 mg/kg
WATER		
ETHANOL	= 79 ug/l	< 5 ug/l

Comments:

On April 25, 2013, DEH received an application for the Voluntary Assistance Program for oversight of investigation of an ethanol spill in the parking lot of Qualcomm Stadium. On April 7, 2013, a tanker containing approximately 8,000 gallons of ethanol with trace (1-5%) gasoline overturned at the intersection of San Diego Mission Road and Mission Village Drive. The spilled ethanol flowed into two areas of the Qualcomm Stadium parking lot, northeast along San Diego Mission Road across from Murphy Canyon Road (area B), and southwest along Mission Village Drive (area A). Approximately 2,000 gallons of ethanol was pumped out of the tanker and approximately 2,500 gallons of ethanol was recovered from puddles in the Qualcomm Stadium parking lot. The remaining approximately 3,500 gallons of ethanol either evaporated, penetrated the surface of the parking lot, and/or entered the storm drain system in area A.

On April 10, 2013, two soil samples were collected at 0.5 feet below ground surface (bgs) from each spill area. Ethanol was detected in all four soil samples at a maximum concentration of 7,800 milligrams per kilogram in area A. Additional soil sampling was completed adjacent to the previous soil sampling locations in each area on September 24, 2013. Ethanol was not detected in the area B samples, collected at 0.5 and 1 foot bgs. Ethanol was detected in one of the soil samples from area A, at 63 mg/kg at 0.5 feet bgs and at 36 mg/kg at 1 foot bgs. Ethanol was not detected in this location at 5 feet bgs. The consultant used this data to calculate the half-life of ethanol at the site, which ranged from 13 to 24 days. The consultant concludes that the shallow ethanol impacts to soil at the site are degrading rapidly.

On September 24, 2013, soil sampling was also completed adjacent to observed or suspected breaches in the affected portions of the storm drain and in five storm drain catch basins. A total of 18 samples, collected at depths of 4 and 8 feet bgs, were analyzed, and ethanol was not detected in any of the samples. The consultant concludes that there is no evidence of ethanol releases to the subsurface via the storm drain.

The ethanol spill occurred in the vicinity of a petroleum release from Kinder Morgan, the Mission Valley Terminal case, which is overseen by the Regional Water Quality Control Board. There are numerous groundwater monitoring wells associated with this case that are installed in the Qualcomm Stadium parking lot. The results of groundwater monitoring indicated that ethanol was detected in one well, R-44AM, at a concentration of 79 micrograms per liter (ug/l) on May 7, 2013. The flow of spilled ethanol passed within approximately 50 feet of well R-44AM. Ethanol was not detected in this well when it was sampled on August 5, 2013. The consultant concludes that ethanol impacted a localized area of shallow groundwater in the vicinity of the spill, and that aerobic and/or anaerobic degradation processes are mitigating groundwater impacts via natural attenuation.

Based upon the soil and groundwater sampling data, the consultant recommends no further action to delineate or remediate subsurface impacts associated with the ethanol spill. DEH concurs with the consultant's conclusions and recommendations.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? YES
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? YES
Does corrective action protect public health for current land use? YES Case review based on current use as: COMMERCIAL
Are there other issues DEH needs to follow up on: NO
Site Management Requirements: ANY CONTAMINATED SOIL EXCAVATED AS PART OF SUBSURFACE CONSTRUCTION WORK MUST BE MANAGED IN ACCORDANCE WITH THE LEGAL REQUIREMENTS AT THAT TIME.
Should corrective action be reviewed if land use changes? YES
List Enforcement Actions Taken: NONE
List Enforcement Actions Rescinded: NONE

Case Closure Summary
Non-LOP or Voluntary Assistance Program

IV. CLOSURE (Continued)

LSAM-000173

Is this account up to date and current? YES

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: KEVIN M. HEATON, PG 4163, CHg 163

Title: SENIOR HYDROGEOLOGIST

Signature: 

Date: 

VI. RWQCB NOTIFICATION

Date Submitted to RWQCB: N/A - VAP

RWQCB Response: N/A - VAP

RWQCB Staff Name: N/A

Title: N/A

Date: N/A

VII. ADDITIONAL COMMENTS, DATA, ETC.

NONE

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.

HAZARDOUS MATERIALS MANAGEMENT DIVISION
UNDERGROUND TANK REMOVAL/CLOSURE REPORT

ESTABLISHMENT # H213600 PLAN CHECK # NT1524

SITE NAME CITY OF S.D. / JACK MURPHY ST PHONE

FIRE AGENCY PRESENT?
 YES NO
PERMIT NO. A 938
DEPT. S.D. PAM KELLY
% L.E.L.

SITE ADDRESS 9949 FRIARS RD. SAN DIEGO CITY/ ZIP CODE 92105

CONTRACTOR ENVIRONMENTAL RESTORATION PHONE 714-228-0526

NUMBER OF TANKS 1 REMOVAL CLOSURE IN PLACE

REMARKS:

TANK EDP NUMBER
U/L TAG NUMBER
CAPACITY (GALS)
MATERIAL STORED
DECONTAMINATION?
MANIFEST AVAILABLE?
% LEL (CGI READING)
DRY ICE/OTHER (AMT)
TANK CONDITION
BACKFILL SOIL TYPE
BACKFILL CONDITION
NATIVE SOIL TYPE
NATIVE CONDITION
EXCAVATION ODORS?
STOCKPILE ODORS?
PONDED PRODUCT?
PIPELINE LEAK?
REINSPECTION REQUIRED?

T001					
T002					① TANK ~ 1900's - 70" STEEL SINGLE WALL
GASOLINE					② TANK GOING ATR - ONTARIO
YES BY NITRO TANKS GOING TO DEMENDO KERDOON					
YES # 90655130					
REMOVED					
15/63					
HOLES FOUND UNDERNEATH TANK - VENTEND					
SAND					
SLIGHT STAIN / SLIGHT ODOR					
SAND - RIVER SEDIMENT UNCONSOLIDATED					
SLIGHT ODOR (3)					③ EXTREMELY MOIST SOIL AT 7' BG
SLIGHT					
NONE					
NO					
NO					
NO					

NOTICE: You are hereby notified that on 2/20/91, a Hazardous Materials Specialist conducted an inspection for the closure of ONE hazardous substance underground storage tanks. A summary of the conditions follows:

- A determination of this site's status is pending receipt of Laboratory Analyses Results for samples taken this date. Results must be submitted within 30 days. To avoid delays, have the Laboratory send a copy of the results directly to ROBERT RAPISTA (print)
- Contamination of the excavation area has been noted by observations made during the tank removal this date. BEGIN SITE ASSESSMENT PHASE-(See reverse for details).

The Laboratory results have been reviewed by [Signature] (of the HMMD) on 3/25/91 and indicate the following: MOV 3/25/91

NO FURTHER ACTION IS REQUIRED.

BEGIN SITE ASSESSMENT PHASE (See attached information).

Phone Contact Date Form was Mailed 1/1

Received By [Signature]

Printed Name Douglas M. Savage

Phone Number 714-228-0526

ROBERT RAPISTA
Hazardous Materials Specialist
County of San Diego
Department of Health Services
HMMD - P. O. Box 85261
San Diego, CA 92138-5261
(619) 338-2222

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UNDERGROUND TANK REPLACEMENT PROJECTS

CITY OF SAN DIEGO

CONTRACT NO. C-02836

PHASE-II

DRAWING INDEX

- T-1 TITLE SHEET & PROJECT
- T-2 GENERAL NOTES
- G-1 VICINITY MAPS
- C-1 EL CAPITAN RESERVOIR & BARRETT LAKE TANKS-SITE PLANS
- C-2 QUIVIRA CT. TANK-SITE PLAN
- C-3 QUIVIRA CT. DOCK-SITE PLAN
- C-4 BALBOA PARK & PRIARS RD. TANKS-SITE PLANS
- C-5 SUTHERLAND RESERVOIR, MONTGOMERY FIELD AND MIRAMAR LANDFILL TANK REMOVAL-SITE PLANS
- M-1 10,000 GALLON TANK-PIPING AND WIRING DETAILS
- M-2 1000 AND 2000 GALLON TANKS-PIPING AND WIRING DETAILS

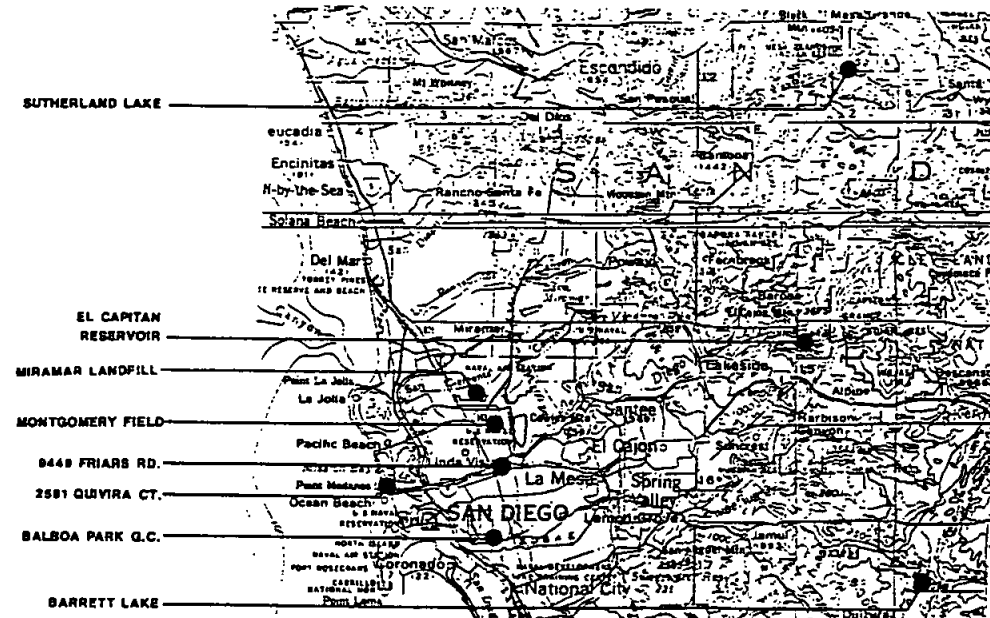
PROJECT DATA

OWNER: CITY OF SAN DIEGO
1010 SECOND AVENUE SUITE 444

CONSULTANT: FOSTER ENGINEERING, INC
MORENA BLVD SUITE 120
SAN DIEGO CA 92117

LAMBERT COORDINATES

EL CAPITAN RESERVOIR	COUNTY
BARRETT LAKE	COUNTY
QUIVIRA CT.	218-1695
BALBOA PARK GOLF COURSE	202N-1725
JACK MURPHY STADIUM	224-1731
SUTHERLAND RESERVOIR	COUNTY
MONTGOMERY FIELD	234N-1725, 236-1725
MIRAMAR LANDFILL	226-1722



VICINITY MAP
NO SCALE

NOTE: 48 HOURS BEFORE EXCAVATION, VERIFY LOCATION OF UNDERGROUND UTILITIES - CONTACT:

GAS UTILITIES TELEPHONE
CITY OF SAN DIEGO 615-412-4122
WATER & SEWER
COMMUNICATION DIV 615-5505

WORK TO BE DONE

REMOVE EXISTING UNDERGROUND FUEL STORAGE TANK, DISPENSING UNIT CONDUIT, AND PIPING WHERE INDICATED.

BACKFILL ALL TANK EXCAVATIONS WHERE NO NEW TANKS ARE INDICATED PATCH TO MATCH EXISTING SURFACE.

INSTALL NEW DIESEL AND GASOLINE TANKS, PIPING, AND DISPENSERS, INCLUDING ALL ELECTRIC POWER & CONTROLS ALL AUXILIARY EQUIPMENT AND PATCHING FOR A COMPLETE AND FUNCTIONING SYSTEM.

GENERAL NOTES

1. CONTRACTOR SHALL VISIT JOBSITE PRIOR TO BIDDING AND SHALL VERIFY CONDITIONS PRIOR TO BEGINNING WORK.
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STATE COUNTY, AND CITY CODES AND REQUIREMENTS.
3. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS INCLUDING FIRE DEPT., COUNTY HEALTH DEPT., AND CITY BUILDING DEPT.
4. THE CITY ENGINEER SHALL BE CONTACTED IMMEDIATELY IF THERE ARE ANY DISCREPANCIES IN THE WORK, AND THEN SHALL NOTIFY SAME IN WRITING OF THE DISCREPANCY.
5. ALL CONDUIT AND OTHER WORK SHALL BE PLACED IN AN AREA THAT DOES NOT IMPACT THE OPERATION OF FACILITY EQUIPMENT.
6. REMOVAL FROM THE SITE AND DISPOSAL OF CONTAMINATED SOILS NOT INCLUDED IN THIS CONTRACT. SHOULD CONTAMINATED SOILS BE ENCOUNTERED IN THE EXCAVATION THE CONTRACTOR SHALL ADVISE THE CITY ENGINEER AND SHALL BE PREPARED AT HIS DIRECTION TO REMOVE SAME TO A PLACE OF TEMPORARY STORAGE ON THE SITE. ASSOCIATED COSTS OF REMOVAL, TESTING, STORAGE, TRANSPORTING AND DISPOSAL, IF ANY, WILL BE REVIEWED AS THEY OCCUR.
7. ALL EQUIPMENT SPECIFIED TO BE REMOVED INCLUDING DISPENSER PIPES AND TANKS ETC., SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
8. CONTRACTOR SHALL SCHEDULE WORK WITH SITE CONTACT SO THAT NECESSARY SITE ACCESS WILL BE MAINTAINED DURING CONSTRUCTION.
9. THE E.S.O.S. SHALL BE ON THE OUTSIDE OF THE BUILDING AT LEAST 25 FEET FROM DISPENSER AND TANK.

REFERENCE CODES

UNIFORM BUILDING CODE	1982 EDITION
UNIFORM MECHANICAL CODE	1982 EDITION
UNIFORM PLUMBING CODE	1982 EDITION
UNIFORM FIRE CODE	1982 EDITION
NATIONAL ELECTRIC CODE	1982 EDITION
CALIFORNIA HEALTH & SAFETY CODE	
OSHA HEALTH & SAFETY STANDARDS	
CALIFORNIA ADMINISTRATIVE CODE	

REFERENCE SPECIFICATION

STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION, 1988 EDITION, DOCUMENT NO. 769709, FILED 9-20-88, INCLUDING REGIONAL AND CITY OF SAN DIEGO SUPPLEMENT, SPECIFICATION NO. 5994

UNDERGROUND STORAGE TANK REPLACEMENT PROJECTS - PHASE II

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING DEPARTMENT
SHEET 1 OF 10 SHEETS

NO 119330

DESCRIPTION	DATE	BY	APPROVED

GENERAL NOTES

1. ALL EQUIPMENT REMOVED, DISPENSER, PIPE, TANK, ETC., SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS. DISPOSAL DOCUMENTS SHALL BE COPIED AND SENT TO THE CITY'S ENGINEER.
2. EPA #'S AND/OR STATE GENERATOR ID #'S SHALL BE OBTAINED FOR EACH SITE FROM THE CITY ENGINEER. ALL PERMITS, INSPECTION REPORTS AND MANIFESTS SHALL BE COPIED AND SENT TO THE CITY ENGINEER.
3. EXCAVATED REUSABLE BACKFILL MATERIAL IS TO BE STORED IN A LOCATION ON-SITE THAT HAS BEEN APPROVED BY THE CITY ENGINEER AND FACILITY PERSONNEL. THE STORAGE AREA SHALL BE SUFFICIENTLY AWAY FROM THE EXCAVATION TO PREVENT RUN OFF INTO HOLE AND MATERIAL SHALL BE COVERED UNTIL REFILLING OF EXCAVATION OCCURS. STORAGE LOCATION SHALL BE OUT OF TRAFFIC FLOW.
4. CONTRACTOR SHALL COORDINATE ALL WORK WITH PROJECT MANAGER AND FACILITIES PERSONNEL.
5. AFTER TANK CONTENTS ARE REMOVED, ALL TANKS/ VAULTS SHALL BE TRIPLE RINSED AND INERTED TO THE SATISFACTION OF THE HEALTH DEPARTMENT AND FIRE DEPARTMENT BEFORE TANK REMOVAL.
6. BIDDER MUST HOLD A VALID CALIFORNIA STATE CONTRACTOR'S LICENSE IN EITHER OF THE FOLLOWING CLASSIFICATIONS: A, B OR C-61 (SERVICE STATION "IMPMENT").
7. IF THE COUNTY HMOI INSPECTOR DESIGNATES THE CONCRETE FROM THE CONCRETE VAULT REMOVAL TO BE A "HAZARDOUS WASTE" THEN THE DISPOSAL OF THE CONCRETE IS EXCLUDED FROM THIS CONTRACT.

EXECUTION OF WORK

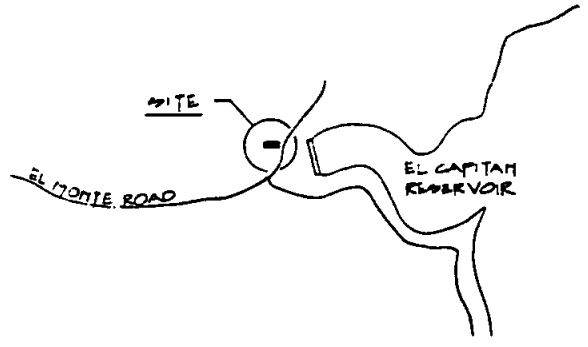
1. SAWCUT CONCRETE AND/OR ASPHALT AND DISPOSE OF DEBRIS OFF-SITE.
2. CONCRETE IS ASSUMED TO BE 8" THICK, ASPHALT 6" THICK.
3. STORE EXCAVATED, REUSABLE BACKFILL MATERIAL ON-SITE.
4. CONTRACTOR SHALL DISPOSE OF ALL DEBRIS AND PROVIDE BARRICADES SURROUNDING EXCAVATION AND WORK AREA.
5. SAWCUT AREA FOR RESURFACING SHALL HAVE STRAIGHT SMOOTH EDGES AND ALL CORNERS SHALL BE AT 90 DEGREE ANGLES.
6. IF EDGE OF SAWCUT AREA IS DAMAGED DURING THE WORK, CONTRACTOR SHALL RECUT TO PROVIDE A STRAIGHT EDGE BEFORE RE-SURFACING AREA.
7. CONTRACTOR SHALL DISPOSE OF ANY RESIDUAL PRODUCT AND SLUDGE, TRIPLE RINSE AND INERT TANKS. ALL MANIFESTS AND OTHER DOCUMENTATION SHALL BE PROVIDED TO PROJECT MANAGER.
8. CONTRACTOR SHALL REMOVE AND DISPOSE OF TANKS, PIPING, DISPENSER, VAULT AND ALL ANCILLARY EQUIPMENT ASSOCIATED WITH THE FUELING SYSTEM TO BE PERMANENTLY CLOSED (UNLESS OTHERWISE NOTED).
9. CONTRACTOR SHALL PROTECT ALL PIPING EXPOSED UNTIL THE EQUIPMENT IS BACKFILLED. IF A PROBLEM OCCURS THE CONTRACTOR SHALL REPAIR OR REPLACE AS REQUIRED WITH NO CHARGE TO THE CITY.
10. CONTRACTOR SHALL SAWCUT ALL ASPHALT AND CONCRETE AS REQUIRED TO COMPLETE THIS WORK.
11. CONTRACTOR SHALL BACKFILL ALL EXCAVATIONS AND RESURFACE ASPHALT AND CONCRETE TO MATCH EXISTING CONDITIONS. CONCRETE TO BE 3000 PSI @ 28 DAYS.
12. CONCRETE RESURFACING SHALL BE A MINIMUM OF 8", ASPHALT RESURFACING SHALL BE MINIMUM OF 5" C.T.B. WITH 2" A.C. COVERING OF EITHER 3/8" OR 1/2" AGGREGATE.
13. CONCRETE IS TO BE TREATED WITH TYPE 2 WHITE PIGMENTED CONCRETE CURING COMPOUND, APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION, CONSISTENT WITH ASTM STANDARD SPEC. C309.
14. COMPACT BACKFILL TO 90%. USE REMOVED FILL MATERIAL LOCATED AT SITE. REMOVE STONES. CONTRACTOR TO PROVIDE ADDITIONAL FILL MATERIAL IF NECESSARY.
15. PROVIDE COMPACTION REPORT AS PER ASTM D1556 OR CALIF. TEST METHOD #216 OR #231. PROVIDE CONCRETE DESIGN MIX.
16. ALL JAGGED EDGES AT CONCRETE AND ASPHALT CUTS TO BE MADE CLEAN AND STRAIGHT BEFORE RESURFACING.
17. SLOPE NEW SURFACE TO DRAIN TO EXISTING SURFACE DRAINAGE SYSTEM.
18. A CONTROL JOINT SHALL BE INSTALLED ALONG SHORT DIMENSION OF SLAB WHERE TANK WAS LOCATED.
19. CONTRACTOR SHALL REPAIR OR REPLACE TO MATCH EXISTING CONDITIONS ANY DAMAGED AREA, INCLUDING CONCRETE, ASPHALT, CURBS, GUTTERS, FENCING AND LANDSCAPING.
20. CONTRACTOR SHALL RESURFACE AT DISPENSER LOCATION AFTER DISPENSER IS REMOVED.
21. CONTRACTOR SHALL COORDINATE ALL WORK SO AS TO DISTURB FACILITY PERSONNEL MINIMALLY.
22. CONTRACTOR SHALL RESTORE SITE TO MATCH EXISTING CONDITIONS AFTER THE WORK IS DONE.
23. ALL PIPING ABOVE GRADE IS TO BE REMOVED AND DISPOSED OF AND ALL PIPING ABANDONED IN PLACE IS TO BE CAPPED OFF.
24. CONTRACTOR SHALL FOLLOW THE COUNTY OF SAN DIEGO "MANDATORY SAMPLING FOR ROUTINE TANK REMOVALS" POLICY FOR ANY TANK PULLED AFTER JANUARY 1, 1989. CONTRACTOR SHALL TAKE THE REQUIRED SAMPLES UNDER DIRECTION OF CITY ENGINEER. CONTRACTOR SHALL PAY FOR ALL LAB ANALYSIS AND SUBMIT LAB TEST RESULTS TO CITY ENGINEER.
25. CONTRACTOR SHALL FOLLOW CITY OF SAN DIEGO TANK FULL GUIDELINES, A COPY OF WHICH IS AVAILABLE FROM U.G.S.T. PROGRAM OFFICE.

SPECIFICATION No. 5994	
GENERAL NOTES	
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING DEPARTMENT SHEET 6 OF 10 SHEETS	W.O. 119338 NO. 119338
<i>Paul Casanova</i> CITY ENGINEER	<i>Paul Casanova</i> CITY ENGINEER
DATE: 5-23-91	
DESCRIPTION	BY
APPROVED	DATE
PAID	
CONTRACTOR	DATE STARTED
INSPECTOR	DATE COMPLETED
	25521-2 -D

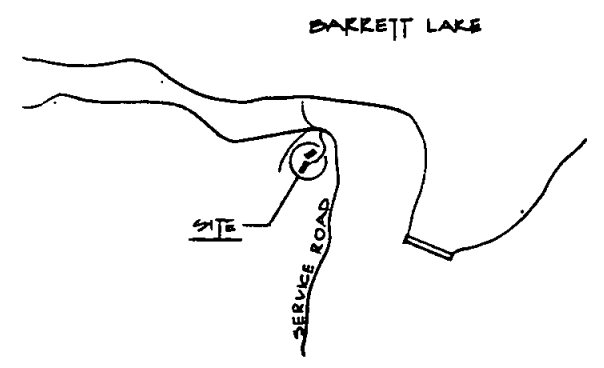
FOSTER ENGINEERING, INC.
ENGINEERING AND ARCHITECTURE
SAN FRANCISCO SACRAMENTO SAN DIEGO

NOTES

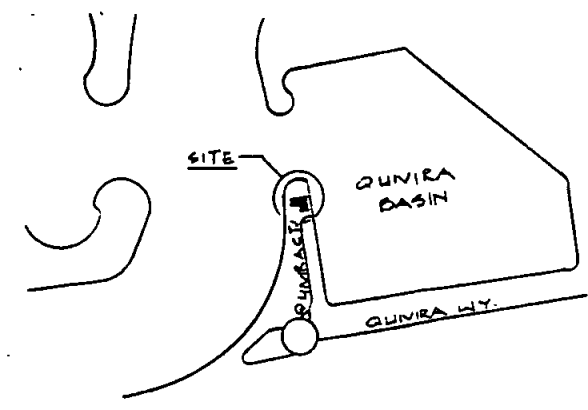
1. CONTRACTOR SHALL MAKE ALL NECESSARY CONCRETE AND ASPHALT CUTS TO REMOVE THE EXISTING TANK AND PIPING AND TO ACCOMMODATE THE INSTALLATION OF THE NEW TANKS, AND DISPENSERS, AS SHOWN.
2. CONTRACTOR SHALL SET NEW DISPENSERS UPON A NEW 4" HOUSEKEEPING SLAB, WHERE INDICATED.
3. VENT LINES SHALL BE SECURELY ATTACHED TO THE BUILDING AT 5'-0" INTERVALS, OR AS OTHERWISE SHOWN. SUBMIT ATTACHMENT METHOD TO ENGINEER BEFORE BEGINNING WORK. THESE LINES SHALL BE PAINTED TO MATCH EXISTING BUILDING.
4. CONTRACTOR SHALL INSTALL ALL TANK RISER, PUMP, GAUGING AND LEAK DETECTOR PORTS SO THAT THE CONNECTIONS TO THE TANK ARE ACCESSIBLE. CONTAINMENT Sumps SHALL EXTEND FROM TANK TOP TO TOP OF SLAB TO INSURE MINIMUM EXCAVATION FOR LINE OR EQUIPMENT ACCESS.
5. CONTRACTOR SHALL PROVIDE NAMEPLATES FOR ALL EQUIPMENT INCLUDING DISPENSER, LEAK DETECTOR, AND DISCONNECT SWITCHES. NAMEPLATES SHALL BE OF 1-1/2" HIGH PHENOLIC MATERIAL OF WHITE BACKGROUND WITH 1/2" HIGH BLACK ENGRAVED LETTERS AND THEY SHALL BE MOUNTED WITH SCREWS.
6. CONTRACTOR SHALL LABEL ALL MANHOLE COVERS TO DENOTE CONTENTS BELOW. ADDITIONAL IDENTIFICATION SHALL BE PROVIDED TO DESIGNATE DIESEL AND GASOLINE TANKS. SUBMIT DETAILS TO ENGINEER FOR APPROVAL.
7. CONTRACTOR SHALL ORDER TANKS WITH BUNGS GROUPED AT EACH END. RISERS AND ANNULAR SPACE ACCESS EXTENSIONS SHALL LINE UP WITH SPILL CONTAINMENT Sumps.
8. CONTRACTOR SHALL PROVIDE FILL AND VAPOR CAPS WITH PADLOCK PROVISIONS, AND, PROVIDE PADLOCKS AND KEYS FOR EACH.
9. DISPENSERS SIGNAGE SHALL CONFORM TO COUNTY DEPT. OF WEIGHTS AND MEASURES REQUIREMENTS.
10. PIPING AND CONDUIT ENTERING BUILDING FROM UNDERGROUND SHALL BE SLEEVED THROUGH FOOTING.
11. EXACT LOCATION OF EQUIPMENT, DISPENSER, LEAK DETECTOR, ELECTRIC SWITCHES, ETC. SHALL BE CONFIRMED BY ENGINEER PRIOR TO INSTALLATION.
12. CONTRACTOR SHALL REINSTATE IN KIND ALL PAVEMENT SURFACES.



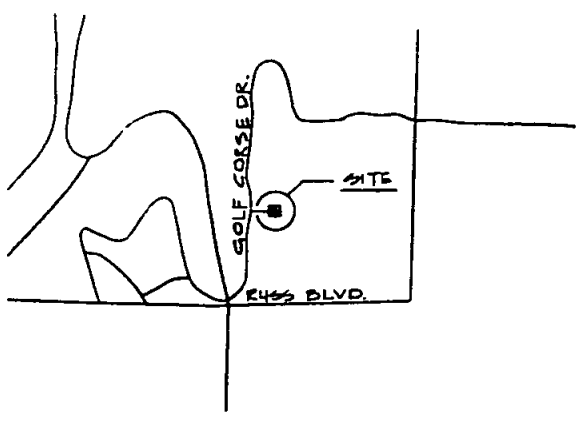
EL CAPITAN RESERVOIR VICINITY MAP
SCALE 1"=750'



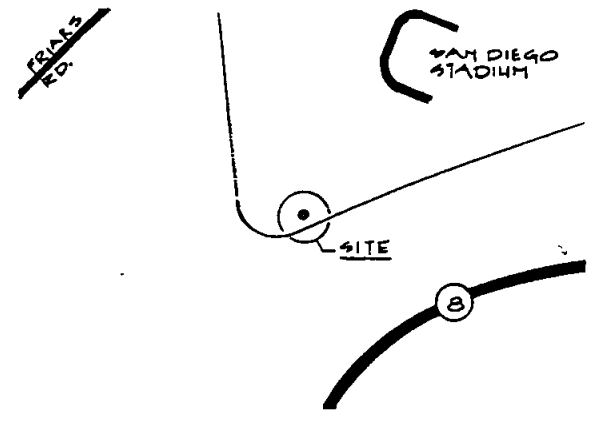
BARRETT LAKE VICINITY MAP
SCALE 1"=750'



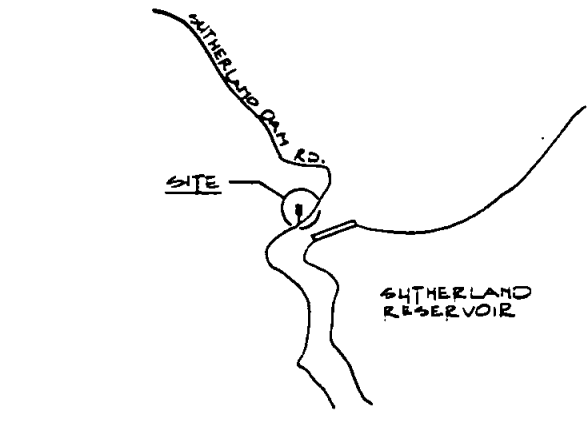
2981 QUIVIRA CT. VICINITY MAP
SCALE 1"=1000'



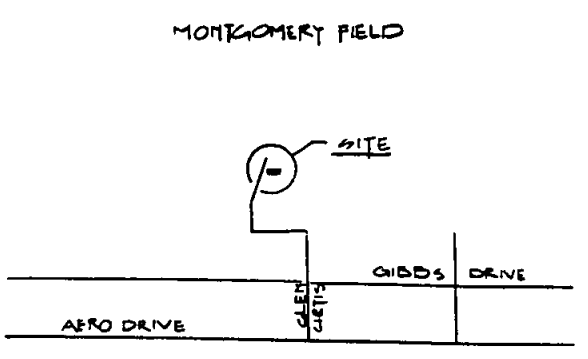
BALBOA PARK GOLF COURSE VICINITY MAP
SCALE 1"=700'



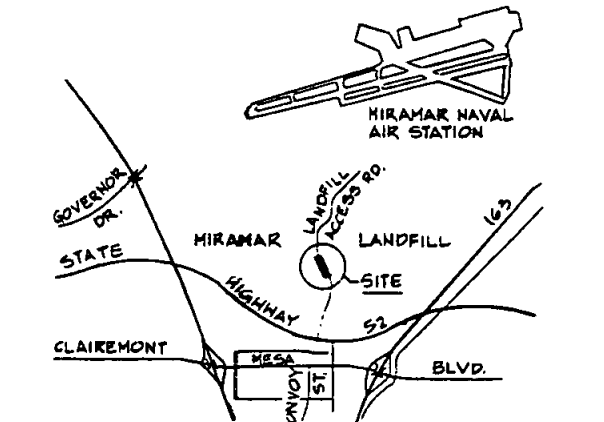
9449 FRIARS RD. VICINITY MAP
SCALE 1"=500'



SUTHERLAND RESERVOIR VICINITY MAP
SCALE 1"=750'



MONTGOMERY FIELD VICINITY MAP
SCALE 1"=1000'



MIRAMAR LANDFILL VICINITY MAP
SCALE 1"=7000'

ABBREVIATIONS

- | | |
|-----------------------------------|---|
| BD - BOARD | RECEPT - RECEPTACLE |
| C - CONDUIT | REQD - REQUIRED |
| CMU - CEMENT MASONRY UNIT | RG - REGULAR GASOLINE |
| CONC - CONCRETE | SDGE - SAN DIEGO GAS & ELECTRIC |
| DN - DOWN | STL - STEEL |
| ELEC - ELECTRICAL | SURF - SURFACE |
| (E) - EXISTING | SWBD - SWITCHBOARD |
| E.SOS - EMERGENCY SHUT OFF SWITCH | TYP - TYPICAL |
| F - FUEL | V - VENT |
| F.B. - FLAT BAR | VR - VAPOR RECOVERY |
| GALV - GALVANIZED | VRRG - VAPOR RECOVERY REGULAR GASOLINE |
| GND - GROUND | VRUL - VAPOR RECOVERY UNLEADED GASOLINE |
| GRS - GALVANIZED RIGID STEEL | U/G - UNDERGROUND |
| JB - JUNCTION BOX | UL - UNLEADED GASOLINE UNLESS OTHERWISE NOTED |
| LTG - LIGHTING | UON - UNLESS OTHERWISE NOTED |
| MIN - MINIMUM | W - WATER |
| MTD - MOUNTED | |
| (N) - NEW | |

6/30/93
3/9/90
6/30/93

FOSTER ENGINEERING, INC.
ENGINEERING AND ARCHITECTURE
SAN FRANCISCO SACRAMENTO SAN DIEGO

SPECIFICATION No. 5994

VICINITY MAPS

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING DEPARTMENT SHEET 3 OF 10 SHEETS		W.O. 119338
 DATE: 5-20-93 CITY: SAN DIEGO		 DATE: 5/20/93
DESCRIPTION	BY	APPROVED DATE FILMED
ORIGINAL		
CONTRACTOR		DATE STARTED
INSPECTOR		DATE COMPLETED
		25521-3-D

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H21360/NT 1524 2-26-91
CITY OF SD/JACK MURPHY STADIUM
9949 FRIARS RD.



H21360/NT 1524 2-26-91
CITY OF SD/JACK MURPHY STADIUM
9949 FRIARS RD.



H21360/NT 1524 2/26-91
CITY OF SD/JACK MURPHY STADIUM
9949 FRIARS RD.



H21360/NT 1524 2-26-91
CITY OF SD/JACK MURPHY STADIUM
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H21360/NT 1524 2-26-91
CITY OF SD/JACK MURPHY STADIUM
9949 FRIARS RD.



H21360/NT 1524 2-26-91
CITY OF SD/JACK MURPHY STADIUM
9949 FRIARS RD.



CERTIFICATION AND PRESSURE TEST INSPECTION REPORT

EST# H21360 PLAN CHECK# NT1524

SITE ADDRESS 9949 FRIARS RD. CITY SAN DIEGO ZIP 92105

ESTABLISHMENT NAME CITY OF SAN DIEGO / JACK MURPHY STADIUM

CONTRACTOR NAME ENVIRONMENTAL RESTORATION PHONE# (714) 228-0526

CERTIFICATION OF TANK SET	YES	NO
TANK MANUFACTURERS CHECKLIST OF INSTALLATION RECEIVED	X	
HMMD'S CERTIFICATION OF INSTALLATION RECEIVED	X	
HMMD'S APPROVED PLANS ON SITE	X	

PRESSURE TEST		BY: <u>ROBERT RAPISTA</u>		DATE: <u>3-12-91</u>		
	TANK#1	TANK#2	TANK#3	TANK#4	TANK#5	
ENTIRE PRIMARY SYSTEM AT 5 PSI (FROM/TO) <u>PRODUCT AT 82</u>	REG 5/5 8/4/84 PASS	UNL 65 8080 PASS	DIE 53/53 82/82 PASS			
SPILL/OVERFILL PREVENTION SYSTEM						
- BALL FLOAT VALVES ON VENT LINES	TO BE INSTALLED					
- BALL FLOAT VALVES ON VAPOR LINES	TO BE INSTALLED N/A					
- CATCHMENT BASIN ON FILL PIPE	TO BE INSTALLED					
- POSITIVE SHUT-OFF DEVICE ON FILL PIPE	NO	NO	NO			
LINE LEAK DETECTOR INSTALLED ON PRESSURIZED PRODUCT LINES	TO BE INSTALLED					
SECONDARY CONTAINMENT						
- TANK	YES	YES	YES			
- MANWAY/FITTINGS	YES	YES	YES			
- PRODUCT/REMOTE FILL LINES	YES	YES	YES			

	YES	NO
PRESSURE TEST AND TANK SET APPROVED	X	
REINSPECTION AND REINSPECTION FEE REQUIRED		X

RECEIVED BY: Douglas M. Savage PRINT NAME: Douglas M. Savage DATE: 3-12-91

REMARKS: _____

SUPPLEMENTAL APPLICATION INFORMATION
 FEE SCHEDULES 26A, B, C, D
 NON-BULK VOLATILE ORGANIC COMPOUND
 DISPENSING FACILITIES SUBJECT TO RULES 61.0 THROUGH 61.6

City of San Diego - Jack Murphy Stadium
 9949 Friars Rd San Diego

Appl. No. _____
 Date: 1-30-91

VAPOR CONTROL EQUIPMENT TO BE INSTALLED OR MODIFIED

New	Exist	Equipment Name	ARB Executive Order
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Phase I 2-Point	G-70 _____ - _____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Phase II Husky Balanced System	G-70 _____ - _____
Dispenser Arrangement According to Exhibit: Bennett single hose			of G-70 52 - _____
Vapor Return Hose Internal Diameter: _____ inches;			or Co-Axial <input checked="" type="checkbox"/>
Vapor Return Nozzle Mfr: Husky			Model: X
Vacuum Assist Systems:		Hasstech VCP-2 <input type="checkbox"/>	or VCP-2A <input type="checkbox"/>
		Healy Jet Pump <input type="checkbox"/>	or Multi-Jet <input type="checkbox"/>
		Hirt VCS-200-1 <input type="checkbox"/>	or VCS-200-2 <input type="checkbox"/>

	Premium	Regular	Unleaded	Other*
No. of Existing Nozzles:	_____	_____	1	_____
No. of Nozzles to be Added or Removed:	_____	1	_____	_____
New Total Number of Nozzles:	_____	1	1	_____

2. STORAGE TANKS TO BE INSTALLED OR MODIFIED

Tank Capacity for Each Storage Tank (Gallons)

New	Exist	Remove	Premium	Regular	Unleaded	Other*
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	1 K gallons	_____	_____
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	1 K gallons	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____	_____	550 gallons	_____
Monthly Throughput (Gallons):			_____	_____	_____	_____

Include a site plan of all tanks, dispensers and underground piping. Also identify all vapor return piping material, diameter, length and slope.

* Do not list nozzles or tanks used exclusively for diesel fuel.

Name of Preparer: Dick M. J... Date: 1-30-91

BEFORE ACTING ON AN APPLICATION FOR AUTHORITY TO CONSTRUCT, PERMIT TO OPERATE, OR PERMIT TO SELL OR RENT, THE DISTRICT MAY REQUIRE FURTHER INFORMATION, PLANS, OR SPECIFICATIONS.

SAN DIEGO AIR POLLUTION CONTROL DISTRICT
 9150 CHESAPEAKE DRIVE
 SAN DIEGO CA 92123-1095
 (619) 694-3307

APPL NO.	_____
SECTOR/ID NO.	_____
PERMIT/OPERATE	_____
SIC CODE	_____
(APCD USE ONLY)	

APPLICATION FOR AIR POLLUTION CONTROL DISTRICT
 AUTHORITY TO CONSTRUCT (A/C) AND/OR PERMIT TO OPERATE (P/O), SELL OR RENT

ATTENTION: PLEASE READ INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM PRIOR TO COMPLETING.
 ALL SECTIONS MUST BE COMPLETED. (Please PRINT or TYPE.)

FILING THIS APPLICATION DOES NOT GRANT PERMISSION TO CONSTRUCT OR TO OPERATE EQUIPMENT

I. APPLICANT INFORMATION

- Firm Name (DBA/Mil. Command/Govt Entity): City of San Diego
- Legal owner, if different from DBA: _____
- Equipment address: 9949 Friars Rd City San Diego Zip 92101
(For Portable Equipment use Home Base Address)
- A/C Contact/Title: Paul Deschamps - Project Engineer Phone (619) 533-3169
 Mailing Address: 1010 E-2nd St. Suite 444 City San Diego State CA Zip 92101
(If different from equipment address)
- Permit Recipient/Title: Same Phone () _____
 Mailing Address: _____ City _____ State _____ Zip _____
- Site Contact/Title: Jack Powell Bldg Super- Site Phone 619 525-8271
- Nature of Ownership: Govt. Utility Corp. Dealership Individual Partnership
- Nature of Business: City Use

II. NATURE OF APPLICATION

- | | | |
|---|---|---|
| 1. <input checked="" type="checkbox"/> New equipment to be installed or constructed. (Original application) | 4. <input type="checkbox"/> Modification of existing permitted equipment. | Reference Application/
Permit Nos.

Appl. # _____
P/O # _____
P/O # _____
P/O # _____ |
| 2. <input type="checkbox"/> Prefabricated (off-the-shelf) equipment not requiring construction. | 5. <input type="checkbox"/> Inactive status permit. | |
| 3. <input type="checkbox"/> Amendment to a completed APPL. or existing A/C. | 6. <input type="checkbox"/> Change of Permit Ownership. | |
| | 7. <input type="checkbox"/> Condition Change. | |
| | 8. <input type="checkbox"/> Change of Equipment Location. | |
| | 9. <input type="checkbox"/> Banking. | |
| | 10. <input type="checkbox"/> Other (Explain) _____ | |

III. DESCRIPTION OF OPERATION

- Normal Equipment Operating Hours/Day: 8 Days/Week: 5 Weeks/Year: 52

2. General Description of Process Equipment & Air Pollution Control Equipment:

[Add attachments per instructions on reverse side and complete items (a) through (f) if applicable.]

2-1k.gallon underground tanks, Unleaded + regular, 2 point fill Pomoco #311, w/containment sumps, 2-Bennett single hose, single product dispensers, Husky & nozzles w/co-axial hoses, Approx 400 gallons per month.

- Estimated Start of Construction Date: 2-10-91 Est. Completion Date: 2-28-91

IV. SIGNATURE OF AUTHORIZED PERSON:

Print Name/Title: Douglas M. Savage Date: 1-31-91
 Company: Environmental Restoration

DO NOT WRITE BELOW (APCD Use Only)

Receipt # _____ Date _____ Amt. Rec'd \$ _____ Fee Code(s) _____

Add'l Fee Receipt # _____ Date _____ Amt. Rec'd \$ _____ Fee Code(s) _____

Refund Claim # _____ Date _____ Amt. \$ _____



FIRE SURVEY / APPLICATION / PERMIT

INSTRUCTIONS: PLEASE PRINT OR TYPE REQUESTED INFORMATION. MAKE REMITTANCE PAYABLE TO CITY TREASURER, MAIL OR BRING IN PERSON TO SAN DIEGO FIRE DEPARTMENT.

OWNER	NAME (OR NAME OF BUSINESS) <i>San Diego</i>			STATEMENT: I hereby acknowledge that I have read this application; that the information given is correct; and that I am the owner, or the duly authorized agent of the owner. This application does not constitute a permit until all fees have been paid and it has been approved by the Chief or his Deputy. All permits or certificates issued shall be presumed to contain the proviso that the applicant, his agents and employees shall carry out the proposed activity in compliance with all laws and regulations applicable thereto, whether specified or not, and in complete accordance with approved plans and specifications. Any permit or certificate which purports to sanction a violation of any applicable law or regulation shall be void and any approval of plans and specifications in the issuance of such permit shall likewise be void. THE FEE IS NON-REFUNDABLE. Ref: Ord. No. 11083 and 11084		
	MAILING ADDRESS (NUMBER) (STREET) <i>400 E. 2nd St. San Diego 9414</i>					
	CITY <i>San Diego</i>	ZIP <i>92101</i>	TELEPHONE NO. <i>533-2174</i>			
JOB ADDRESS	NAME (IF NOT OWNER) <i>San Diego Fire-1st Station</i>			SIGNATURE (OWNER OR AGENT) <i>[Signature]</i>		DATE SIGNED <i>1/2/77</i>
	ADDRESS (NUMBER) (STREET) <i>1191 E. Ave. 2</i>			PRINT NAME <i>Don M. [Signature]</i>		CITY BUSINESS #
	CITY <i>San Diego</i>	ZIP	TELEPHONE NO.			

CODE	TYPE OF PERMIT REQUIRED	NO.	AMOUNT
<i>1/10</i>	<i>Underground Tank Installation</i>	<i>1</i>	
<i>1/10</i>	<i>1st station</i>	<i>1</i>	
<i>1/10</i>	<i>1st station</i>	<i>1</i>	
<p>THIS IS NOT A PERMIT TO OPERATE! CALL 533-4400 FOR INSPECTION PRIOR TO OPERATION</p> <p>VOID AFTER ONE YEAR</p>			

NOTE: THIS APPLICATION IS NOT A VALID PERMIT UNTIL SIGNED BY AUTHORIZED AGENT.			BATTALION	TOTAL FEE DUE NON REFUNDABLE		
			FIRE CO.	FUND	REV. ACCT.	AMOUNT
FOR FIRE DEPARTMENT USE ONLY				100	73551	
FIRE PERMIT Approved <input type="checkbox"/> Denied <input type="checkbox"/>				100	73552	
BOND REQUIRED <input type="checkbox"/> REC. NO.				100		
SIGNATURE OF INSPECTING DEPUTY				100	73713	
TITLE						
DATE OF INSPECTION	EXPIRATION DATE	UNIT NO.				

- DISTRIBUTION:**
- 1 - WHITE: OFFICE FILE
 - 2 - BLUE: SUSPENSE FILE
 - 3 - YELLOW: INSPECTOR
 - 4 - GREEN: PERMITTEE
 - 5 - PINK: AUDITORS



CITY OF SAN DIEGO
FIRE DEPARTMENT
525 B STREET, SAN DIEGO, CA 92101
Phone 533-4400



PERMIT/APPL. NO. **A**

938

FIRE SURVEY / APPLICATION / PERMIT

INSTRUCTIONS: PLEASE PRINT OR TYPE REQUESTED INFORMATION. MAKE REMITTANCE PAYABLE TO CITY TREASURER, MAIL OR BRING IN PERSON TO SAN DIEGO FIRE DEPARTMENT.

OWNER	NAME (OR NAME OF BUSINESS)			STATEMENT: I hereby acknowledge that I have read this application; that the information given is correct; and that I am the owner, or the duly authorized agent of the owner. This application does not constitute a permit until all fees have been paid and it has been approved by the Chief or his Deputy. All permits or certificates issued shall be presumed to contain the proviso that the applicant, his agents and employees shall carry out the proposed activity in compliance with all laws and regulations applicable thereto, whether specified or not, and in complete accordance with approved plans and specifications. Any permit or certificate which purports to sanction a violation of any applicable law or regulation shall be void and any approval of plans and specifications in the issuance of such permit shall likewise be void. THE FEE IS NON-REFUNDABLE.			
	MAILING ADDRESS (NUMBER) (STREET)						
	CITY	ZIP	TELEPHONE NO.				
JOB ADDRESS	NAME (IF NOT OWNER)					Ref: Ord. No. 11083 and 11084	
	ADDRESS (NUMBER) (STREET)					SIGNATURE (OWNER OR AGENT)	
	CITY	ZIP	TELEPHONE NO.	PRINT NAME	DATE SIGNED		

CODE	TYPE OF PERMIT REQUIRED	NO.	AMOUNT
101	1. Electrical work	1	

**THIS IS NOT A
PERMIT
OPERATE!
CALL 533-4400
FOR INSPECTION
PRIOR TO
OPERATION**

**VOID
AFTER ONE YEAR**

NOTE: THIS APPLICATION IS NOT A VALID PERMIT UNTIL SIGNED BY AUTHORIZED AGENT.			TOTAL FEE DUE NON REFUNDABLE			
FOR FIRE DEPARTMENT USE ONLY			BATTALION	FUND	REV. ACCT.	AMOUNT
			FIRE CO.	100	73551	
FIRE PERMIT Approved <input type="checkbox"/> Denied <input type="checkbox"/> BOND REQUIRED <input type="checkbox"/> REC. NO. _____			100	73552		
SIGNATURE OF INSPECTING DEPUTY			100			
TITLE			100	73713		
DATE OF INSPECTION	EXPIRATION DATE	UNIT NO.	DISTRIBUTION:			
			1 - WHITE: OFFICE FILE 2 - BLUE: SUSPENSE FILE 3 - YELLOW: INSPECTOR 4 - GREEN: PERMITTEE 5 - PINK: AUDITORS			

PLAN CHECK # NT1524

EST # H21360

DATE: 2/5/91

**COUNTY OF SAN DIEGO
DEPARTMENT OF HEALTH SERVICES**

HAZARDOUS MATERIALS MANAGEMENT DIVISION

PLAN CHECK CORRECTIONS AND COMMENTS FOR UNDERGROUND STORAGE TANK FACILITY

SITE NAME: CITY OF SAN DIEGO/ENVIRONMENTAL RESTORATION INC.

SITE ADDRESS: 9949 FRIARS ROAD, SAN DIEGO 92105

DESCRIPTION OF PROPOSED ACTION: **REMOVE ONE UNDERGROUND STORAGE TANK AND
INSTALL THREE UGST'S.**

NOTE:

FOR TANK SYSTEMS THAT ARE TO BE REMOVED, THE EXCAVATION SHALL BE EXPOSED PRIOR TO THE SCHEDULED INSPECTION AND SAMPLING POINTS IDENTIFIED BY THE HMMD INSPECTOR. SAMPLING IS REQUIRED FOR BOTH TANK AND PIPING. THE TANK MUST REMAIN IN THE EXCAVATION UNTIL THE HMMD INSPECTOR APPROVES THE REMOVAL.

PLANS REVIEWED AND APPROVED
SHOULD YOU HAVE ANY QUESTIONS, PLEASE CALL
MARY PETERS AT (619) 338-2207

QUALITY ASSURANCE LABORATORY
6605 NANCY RIDGE DRIVE
SAN DIEGO, CALIFORNIA 92121
(619) 552-3636

ENVIRONMENTAL RESTORATION, INC.
ATTN: DOUGLAS SAVAGE
13829 ARTESIA BLVD.
CERRITOS, CA 90701

DATE OF REPORT	MARCH 4, 1991
DATE RECEIVED	FEBRUARY 26, 1991
DATE OF SAMPLE	FEBRUARY 26, 1991
DATE COMPLETED	MARCH 1, 1991
ANALYZED BY	GA
SAMPLE TYPE	2 SOLID
PROJECT NAME	CITY OF S.D. JACK MURPHY STADIUM

ANALYSES RESULTS

LOG NUMBER	SAMPLE ID	ANALYSIS:	TPH
		METHOD:	DHS*
		UNITS:	MG/KG
2658-91	E 9-1		<10.0
2659-91	W-9		<10.0

TPH -- TOTAL PETROLEUM HYDROCARBONS

* RECOMMENDED PROCEDURE FROM LEAKING UNDERGROUND FUEL TANK FIELD
MANUAL, MAY 1988



PETER SHEN
LABORATORY DIRECTOR

PS/ah

Project Name Reference Address				ANALYSIS REQUESTED					SAMPLE TYPE				NO. OF CONTAINERS	COPY OF LAB RESULTS MUST BE SENT TO: County Of San Diego Hazardous Materials Management Division P.O. Box 85261 San Diego, Ca 92138-5261
Samplers Signature Lab To Be Used				TPH DOHS METHOD	TPH EPA 418.1	BTXE (8020/602)	HALOGENATED (8010/601)			SOLID	LIQUID	DRAB		
SAMPLE NO.	DATE	TIME	LOCATION											
<u>26891</u> E-9-1	<u>2/26/91</u>	<u>9:35AM</u>	<u>EAST END OF TANK 9' BSG</u>	X						X		X		<u>1</u> <u>LABORATORY GIVE CARBON RANGE</u>
<u>26991</u> W-9	<u>2/26/91</u>	<u>9:40</u>	<u>WEST END OF TANK 9' BSG</u>	X						X		X		<u>1</u>
_____														SAMPLES SEALED BY INSPECTOR RECEIVED 2/26/91 3:20

1 RELINQUISHED BY Signature: <u>Douglas M. Savage</u> Printed Name: <u>Douglas M. Savage</u> Company: <u>Environmental Restoration</u>	Date: <u>2/26/91</u> Time: <u>15:18</u>	2 RELINQUISHED BY Signature: _____ Printed Name: _____ Company: _____	Date: _____ Time: _____	3 RELINQUISHED BY Signature: _____ Printed Name: _____ Company: _____	Date: _____ Time: _____	2 TOTAL NO. OF CONTAINERS Sample Conditions Received On Ice <input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No Tape Seal Intact <input checked="" type="checkbox"/> Yes / <input type="checkbox"/> No Special Shipment/Handling Or Storage Requirements: _____
	Date: <u>2/26/91</u> Time: <u>3:20</u>		Date: _____ Time: _____		Date: _____ Time: _____	
RECEIVED BY Signature: <u>J Cook</u> Printed Name: <u>J Cook</u> Company: <u>QAL</u>	Date: <u>2/26/91</u> Time: <u>3:20</u>	RECEIVED BY Signature: _____ Printed Name: _____ Company: _____	Date: _____ Time: _____	RECEIVED BY (LAB) Signature: _____ Printed Name: _____ Company: _____	Date: _____ Time: _____	



**PERMIT APPLICATION
PART III
APPLICATION FOR PERMIT TO CLOSE UNDERGROUND STORAGE TANK SYSTEM**

A. TOTAL NUMBER OF TANK SYSTEMS TO BE CLOSED: 3
NOTE: UST SYSTEMS INCLUDE TANK AND ALL ASSOCIATED PIPING.

B. DESCRIPTION OF TANKS TO BE CLOSED:

TANK NO.	CAPACITY	DATE INSTALLED	TANK COMPOSITION	TANK PRESENTLY IN USE?	MATERIALS STORED IN TANK
1	1,000 gallon	1991	Steel /FRP	Yes	Unleaded
2	1,000 gallon	1991	Steel /FRP	Yes	Diesel
3	1,000 gallon	1991	Steel /FRP	Yes	Unleaded

C. HAS THE TANK SYSTEM EVER FAILED OR LEAKED? YES NO UNKNOWN

D. REASON FOR TANKS TO BE CLOSED:

- Meet current state/federal requirements
- Replacement of existing tanks
- Tank system failure, briefly describe _____

DEH USE ONLY:

PROJECT MANAGER:

TYPE:

Other, briefly describe Remove UST system and replace with AST system

E. PREVIOUS OWNERS AND OPERATORS OF THE TANKS:

Dates	Owner/Operator
_____	_____
_____	_____
_____	_____
_____	_____

F. PROPOSED METHOD OF CLOSURE: REMOVAL CLOSURE IN PLACE

SAMPLING PROTOCOL Tank owner/authorized representative responsible for all sampling analyses and associated costs.

- For tank systems that are to be removed. The excavation shall be exposed prior to the scheduled inspection and sampling points identified by the Department of Environmental Health (DEH) inspector. Sampling is required for both tank and piping. **The tank and piping must remain in the excavation until the DEH Inspector approves the removal.**
- Tank systems to be closed in place. Submit an alternate plan which must include soil sampling, reason for closing the tank system in place and type of material to be used to fill the tank. Soil sampling and/or hydrostatic testing is also required for piping closures. Tank system closure in place will only be considered after evaluating the risks and hazards if the tank system were removed.

G. DISPOSAL SITE OF TANK: Pending selection of contractor

Note: You must inform DEH of the address of where the tank and piping is to be disposed. Plans will be disapproved without this information.

H. ATTACH THREE COPIES OF PLANS SHOWING THE FOLLOWING:

1. Property lines, site address, scale, north arrow.
2. Location of all existing structures.
3. Location of all existing underground storage tank facilities.
4. Location of underground storage tanks and piping to be closed.
5. Location of underground utility lines and vaults.

I. REQUIRED INSPECTION-PERMIT TO CLOSE

A representative from DEH must be on site at the time the tank(s) are closed.

1. TANK SYSTEM CLOSURE BY REMOVAL:

- The excavation shall be exposed prior to the scheduled inspection. The tank owner/authorized representative on site must submit a uniform hazardous waste manifest demonstrating that the tank has been properly decontaminated. A combustible gas instrument and soil sampling equipment must be on site. The DEH Inspector will identify sampling points. The tank and piping must remain in the excavation until DEH approves the removal.

2. TANK SYSTEM CLOSURE IN PLACE:

- Soil sampling for tank(s) and piping.
- After approval of the alternate plan, the tank owner/authorized representative on site shall submit a uniform hazardous waste manifest demonstrating that the tank has been properly decontaminated. The DEH Inspector shall verify that the tank system has been properly emptied and will witness the filling with an approved inert substance. Piping must be closed at the same time as the tank.

J. DECLARATION

I declare that to the best of my knowledge and belief, the statements and information provided are correct and true. I understand that information in addition to that provided above may be needed in order to obtain final approval by the Department of Environmental Health (DEH).

I understand that tests and procedures that may be required by other departments and agencies to demonstrate adequate site safety or suitability for further development (e.g. soil compaction testing) are in addition to the requirements of the Department of Environmental Health (DEH).

I will notify the Department of Environmental Health (DEH) at least two working days (48 hours) before work is to begin in order to schedule the required inspections. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared or assumed by the County of San Diego.

SIGNATURE & TITLE *Theodore W. Olson* UST Program Manager
 PRINT NAME Theodore W. Olson
 TELEPHONE (858) 573-1266 DATE 7-18-03



EST. H# _____
PLAN CHECK # _____

**WORKPLAN
FOR
UNDERGROUND STORAGE TANK CLOSURE**

1. Site Name Qualcomm Stadium
2. Site Address 9449 Friars Rd
San Diego, CA 92108

3. Describe the existing land use in the surrounding area (residential, commercial, schools). Describe the locations of nearest receptors and the prevailing wind.

Surrounding land use consists of stadium parking to the east (the Stadium is located approx. 1,000 ft east of the tanks), open space to the south (San Diego River), and retail to the west/northwest (Lowes building supply and IKEA retail stores are located approx. 200-ft west/northwest of the tanks). A stadium trolley stop is located approximately 1/4 mile east of the tanks and the elevated trolley line passes within approx. 30-ft to the south of the tanks. Nearest receptor is the Stadium maintenance shop (approx. 120-ft north of the tanks) and the trolley line – although trolley cars will be in motion when passing by the work area.

Prevailing wind: EAST

4. Explain how the excavation will be secured. Describe fencing/site security and other methods that ensure public safety.

Excavations which are not immediately backfilled will be securely fenced by the removal contractor.

5. If soil is to be stockpiled, describe the location on the Plan Check map. Describe method of soil containment (berming/covers, run-off control).

Stockpiles will be established in accordance with County DEH SAM standards. Stockpiles will be placed on plastic sheeting or impervious surfaces, bermed to prevent contact with stormwater, and covered with plastic sheeting.

6. Do you plan to conduct site assessment or remedial work beyond what is necessary to remove the underground storage tank(s) and perform the mandatory soil sampling required by the Site Assessment and Mitigation Program (SAM) of the Department of Environmental Health?

Yes

No

If Yes, a Workplan for Post-Tank Removal Investigation must be completed under the direction of a registered professional.

Signature *Craig Fe...*

Title Associate Engineer - Civil

Telephone (858) 627-3311 Date 11-10-03

Office Use Only

Establishment No. #H _____

Plan Check # _____

DEH Inspector _____

WORKPLAN FOR POST-TANK REMOVAL INVESTIGATION

Complete this Workplan only if you intend to utilize a backhoe to investigate the extent of hydrocarbon contamination within 72 hours of the removal of an underground storage tank (UST). This site investigation work must be implemented in accordance with the DEH-SAM Manual and under the direction of an appropriately Registered Geologist (RG), Certified Engineering Geologist (CEG), or Registered Civil Engineer (RCE). A complete site assessment report, signed by the above referenced registered professional, must be submitted to DEH within 60 days of the date of the field investigation. This workplan must be signed by the above-referenced professional.

1. Establishment Name / Address

Qualcomm Stadium
9449 Friars Rd.
San Diego, CA. 92108

2. Contractor, Contact, & Phone No.

Jenal Engineering
Alan Westermeier, Superintendent
(619) 520-0350

Environmental Consultant, Contact, & Phone No.

Workplan prepared and submitted by the City of San Diego. Contact - Craig Fergusson, P.E.
Phone - (858) 627-3311.

The City may choose to retain it's Environmental Consultant, Geocon Inc., to implement the workplan. Contact - Ron Kofron, CEG. Phone - (858) 558-6100.

3. Describe how the backhoe will be utilized to conduct the site investigation (i.e., potholing, trenching, etc.) and estimate the maximum quantity of soil to be excavated.

The first trench/pit will be dug at the base of the tank excavation, under the most heavily contaminated area, to determine the vertical extent of soil contamination. Additional pits will be dug at the floor/sidewall-interface of the tank excavation in 4 directions lateral to the initial pit to assess the horizontal extent of contamination. Efforts will be made to extend the pits/trenches an additional 5-feet beyond the apparent limits of contamination to provide conclusive verification of the vertical and horizontal limits. Pits /trenches will be logged for soil and rock type and other conditions, such as: moisture/water, fractures, permeable zones of soil, potential contaminant migration pathways, soil discoloration, petroleum odors, etc. Assessment of the horizontal extent of contamination will generally be limited by the presence of paving and/or structures beyond the

tank pit. Assessment of the vertical extent of contamination will generally be limited by the reach of the backhoe and nature of the surrounding native soil formations. If the extent of soil contamination is determined to appear limited, excavation of contaminated soils will proceed. The anticipated maximum quantity of soil to be excavated is 50 yd³.

4. Describe the soil sample collection methods and laboratory analyses to be used (reference Section 4.B.1 of the SAM Manual). Soil analysis must be performed by a California DTSC Certified Laboratory.

Sample collection will be performed in accordance with methodologies specified in CCR Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.20(c) and with USEPA document SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition (1986)(or most current). Samples will be collected at minimum 5-foot intervals for the purpose of determining contaminant distribution and with the intention of demonstrating a trend of decreasing concentration away from the contaminant source and a zero contaminant concentration line in all directions. Soil samples will be sent to a California DTSC Certified laboratory and analyzed in accordance with the requirements identified in Table 5-4 of the SAM Manual, Required Analyses for UST Removals as specified according to the contents of the UST system (i.e., gas, diesel, waste oil, etc.). The City may choose to mobilize an on-site DTSC Certified Laboratory to complete the analysis.

5. Attach a site drawing (to scale) which includes at a minimum: site structures, subsurface utility lines and fuel lines, UST(s) location, site investigation area, stockpiled soil area, prevailing wind direction, adjacent street and property uses, surface water, and wells.

See attached drawing.

6. Describe methods to monitor and control hydrocarbon vapor emissions at the excavation site.

A hand-held field screening instrument (photo or flame ionization detector) will be used to monitor vapor emissions around the perimeter of the excavation area. If detectible hydrocarbon readings are measured or if strong hydrocarbon odors are observed, excavation activities will be stopped until readings and/or associated odors dissipate, at which time excavation activities will be resumed. Excavated soil will be stockpiled and covered with plastic sheeting to control vapor emissions.

7. Describe the procedures for the management of excavated soil, i.e. soil segregation, engineering controls for the stockpile soil (reference Section 5.C.5. of the SAM Manual), soil characterization, on-site soil management, off-site disposal, on-site treatment, etc.

Based on field observations, excavated soils will be segregated into one of three on-site stockpiles: a) apparently or obviously contaminated soil; b) suspected contaminated soil; and c) suspected clean soil. Stockpiled soil will be managed in a manner that prevents adverse impacts to public health (odors, dust, or nuisance) and the environment. Each soil stockpile will be underlain by and covered with plastic sheeting of a minimum 10-mil thickness to prevent the leaching or volatilization of contaminants and to prevent contact with precipitation. Stockpiles will be bermed to prevent runoff. Open excavations will be securely fenced to ensure public safety. Suspected clean soil will be returned to the tank excavation. Contaminated and suspected contaminated stockpiled soil will be characterized in accordance with Section 4.E. of the SAM Manual prior to re-use of soil as backfill on-site or transport of soil off-site for

treatment and/or disposal. Depending on final stockpiled quantities, the contaminated and suspect-contaminated stockpiles may be consolidated and characterized collectively. Contaminated stockpiled soil will be properly treated or disposed of within 45 days of excavation. On-site treatment of soil is not anticipated. The DEH will be provided with copies of all manifests or bills of lading for any soil moved off-site.

8. A Public Notification Program must be implemented prior to commencing the site investigation. Attach a copy of the public notice and provide a written description of the program (reference Section 6.B. of the SAM Manual). Identify the targeted population and the method of public notice distribution.

Public notice is attached. The targeted population for the UST removal at Qualcomm Stadium are City personnel at the adjacent maintenance shop and public. Fliers will be distributed 1-week prior to the UST removal date for posting at the maintenance shop. The tank pulls will be scheduled for a day on which there are no stadium events planned to alleviate risks of public exposure in the stadium, parking lot, and trolley station.

Please Note:

- The investigation trench or excavation must be logged under the direction of a RG, CEG, or RCE and include a complete description of the subsurface soil and/or rock.
- All contaminated soil should either be removed from the site or treated on-site (with agency approval) within 45 days of site-excavation.
- The site excavation must be secured with fencing, site security, and other methods as required to ensure public safety. DEH recommends backfilling the excavation site for safety reasons within 72 hours of the post-tank removal investigation.

Prepared by:

Craig Fergusson, RCE # C58348
(Name, print or type)

City of San Diego
(Company)



11-27-03
(Date)

Approved by Tank/Property Owner:

Theodore W. Olson, UST Program Manager
(Name, print or type)

(Signature)

12-5-03
(Date)

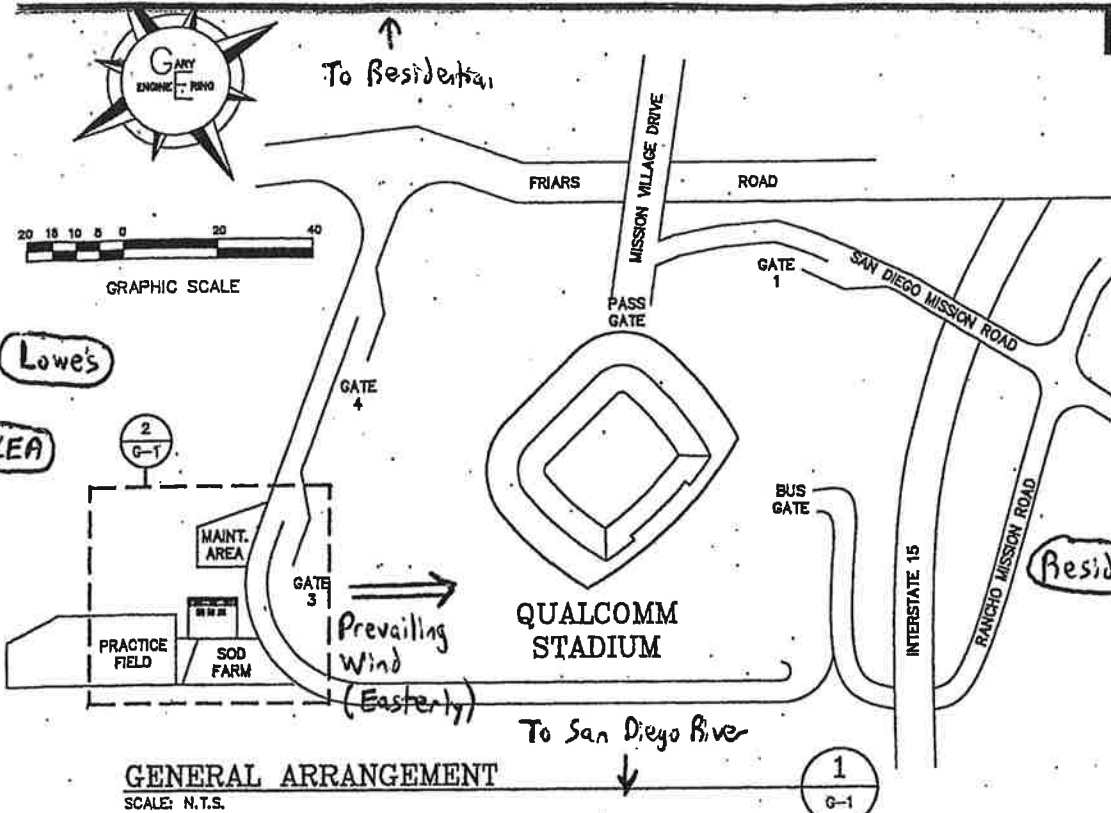
Approved by DEH, SAM Program:

(Name, print or type)

(Signature)

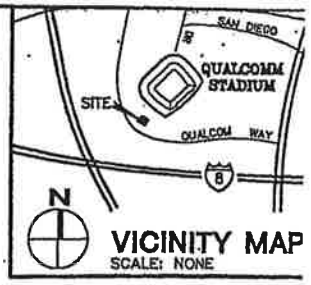
(Date)

FUELING STATION UPGRADES AT QUALCOMM STADIUM



AUGUST 4, 2003

QUALCOMM STADIUM
9449 FRIARS ROAD
SAN DIEGO, CA 92108



DEMOLITION NOTES:

- CONTRACTOR SHALL VISIT JOB SITE PRIOR TO BIDDING AND SHALL VERIFY CONDITIONS PRIOR TO BEGINNING WORK.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STATE, COUNTY AND CITY CODES AND REQUIREMENTS.
- THE CITY WILL APPLY AND PAY FOR ALL NECESSARY PERMITS, INCLUDING FIRE DEPT., COUNTY H.M.M.D., A.P.C.D., ELECTRICAL AND CITY BUILDING DEPARTMENT.
- THE CITY'S ENGINEER SHALL BE CONTACTED IMMEDIATELY IF THERE ARE ANY DISCREPANCIES IN THE WORK, AND THEN SHALL NOTIFY SAME IN WRITING OF THE DISCREPANCY.
- CONTRACTOR TO SEE CITY OF SAN DIEGO SPECIFICATIONS SECTION 7-10.6 THRU 7-10.7.4 FOR HANDLING & DISPOSAL OF CONTAMINATED SOIL.
- THE UNDERGROUND STORAGE TANK SYSTEMS AND ALL OTHER DEMOLITION MATERIALS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES. DISPOSAL DOCUMENTS SHALL BE COPIED AND SENT TO THE CITY'S ENGINEER.
- BIDDER MUST HOLD A VALID CALIFORNIA STATE CONTRACTOR'S LICENSE IN AT LEAST ONE OF THE FOLLOWING CLASSIFICATIONS: A, C-36 OR C-81 (SERVICE STATION EQUIPMENT) WITH HAZARDOUS SUBSTANCE CERTIFICATE ISSUED BY THE STATE.
- ENVIRONMENTAL PROTECTION AGENCY NUMBERS AND/OR STATE GENERATOR I.D. NUMBERS SHALL BE OBTAINED FROM THE CITY'S ENGINEER. ALL PERMITS, INSPECTION REPORTS AND MANIFESTS SHALL BE COPIED AND SENT TO THE CITY'S ENGINEER.
- CONTRACTOR SHALL COORDINATE ALL WORK WITH ENGINEER AND FACILITIES PERSONNEL.
- CONTRACTOR SHALL BACKFILL ALL EXCAVATIONS AND RESURFACE ASPHALT AND CONCRETE TO MATCH EXISTING CONDITIONS. CONCRETE TO BE 3250 PSI @ 28 DAYS.
- CONCRETE RESURFACING SHALL BE A MINIMUM OF 8" ASPHALT RESURFACING SHALL BE MINIMUM OF 5" C.T.B. WITH 2" A.C. COVERING OF EITHER 3/8" OR 1/2" AGGREGATE.
- CONCRETE IS TO BE TREATED WITH TYPE 2 WHITE PIGMENTED CONCRETE CURING COMPOUND, APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION, CONSISTENT WITH ASTM STANDARD SPEC. C309.
- COMPACT BACKFILL TO 95% IN THE TOP 12" AND 90% BELOW THE TOP 12" USE REMOVED FILL MATERIAL LOCATED AT SITE. CONTRACTOR TO PROVIDE ADDITIONAL FILL MATERIAL, APPROVED BY ENGINEER AS NECESSARY.
- PROVIDE COMPACTION REPORT AS PER ASTM D-2922 OR CALIFORNIA TEST METHOD #218 OR #231. PROVIDE CONCRETE DESIGN MIX.
- CONTRACTOR SHALL REPAIR OR REPLACE TO MATCH EXISTING CONDITIONS ANY DAMAGED AREA, INCLUDING CONCRETE, ASPHALT, CURBS, GUTTERS, FENCING, ETC.

PROJECT DATA:

ASSESSORS PARCEL MAP NO.: 433-250-13,1
 SITE ADDRESS: THE CITY OF SAN DIEGO
 QUALCOMM STADIUM
 9449 Friars Road
 San Diego, California 92108
 PROJECT COORDINATOR: Theodore W. Olson, R.E.A.
 THE CITY OF SAN DIEGO
 ENVIRONMENTAL SERVICES
 9801 Ridgehaven Ct., Ste. 310
 San Diego, California 92123-1636
 (858) 573-1286 fax 492-5041
 SITE OPERATOR: Chris Leyco, Safety Officer
 THE CITY OF SAN DIEGO
 QUALCOMM STADIUM
 9449 Friars Road
 San Diego, California 92108
 (619) 541-3110
 PROJECT MANAGER: Craig Ferguson, P.E.
 THE CITY OF SAN DIEGO
 ENVIRONMENTAL SERVICES DEPARTMENT
 ENVIRONMENTAL PROTECTION DIVISION
 9801 Ridgehaven Court, Suite 310
 San Diego, California 92123-1636
 (858) 627-3311 fax (858) 492-5041
 PROJECT DESIGNER: Robert G. Faudos, Jr., Project Engineer
 GARY ENGINEERING, INC.
 4901 Morena Boulevard, Suite 304
 San Diego, California 92117
 (619) 483-0620 fax 483-2943
 GENERAL CONTRACTOR: PENDING
 COUNTY ID#: H 21084
 TANK TO BE INSTALLED: #1 - 1,500 GALLON COMPARTMENTED AST
 1,000 GALLON DIESEL, 500 GALLON UN
 TANKS TO BE REMOVED: #1 - 1,000 GALLON UNLEADED (TO BE REMOVED)
 #2 - 1,000 GALLON DIESEL (TO BE REMOVED)
 #3 - 1,000 GALLON DIESEL (TO BE REMOVED)
 TANK CONTENTS: #1 - UNLEADED
 #2 - DIESEL
 #3 - DIESEL
 TANK MATERIAL: JOOR STEEL/ FRP
 TANK COVER: CONCRETE
 EPA ID#: CAL 000-022-738
 MANIFEST NO.:
 DATE OF UPGRADE:
 HEALTH DEPT. (SA/M) PERMIT NO.: _____ REMOVAL (UST)
 HEALTH DEPT. (SA/M) PERMIT NO.: _____ N/A _____ INSTALLATION (UST)
 FIRE DEPARTMENT PERMIT NO.: _____ REMOVAL (UST)
 FIRE DEPARTMENT PERMIT NO.: _____ INSTALLATION (UST)
 AIR POLLUTION CONTROL PERMIT NO.: _____ AUTHORITY TO

PROJECT SCOPE OF WORK:

- THE WORK TO BE DONE SHALL BE ACCORDING TO THESE PROJECT DRAWINGS AND INCLUDES,
- INSTALL (1) NEW 1,500 GALLON MODERN CUSTOM FABRICATION ABOVEGROUND STORAGE TANK (AST) COMPARTMENTED INTO 1,000 GALLONS FOR DIESEL AND 500 GALLONS FOR UNLEADED.
 - SALVAGE ELECTRONIC LEAK DETECTION MONITORING EQUIPMENT AND OTHER UST SYSTEM COMPONENTS AS DIRECTED BY CITY'S ENGINEER.
 - REMOVE (1) 1,000 GALLON UNLEADED UST AND (2) 1,000 GALLON DIESEL UST'S AND ALL APPLICABLE UNDERGROUND PIPING & RELATED U.G. APPURTENANCES.
 - REMOVE (1) CONCRETE ISLAND, (1) UNLEADED DISPENSER AND (2) DIESEL DISPENSERS AND ALL RELATED APPLICABLE APPURTENANCES INCLUDING, BUT NOT LIMITED TO, DISPENSER CONTAINMENT BOXES, CONDUITS, ETC.
 - REMOVE ALL FENCING MATERIAL ENCLOSING THE FUELING FACILITY (AT ISLAND AND DISPENSERS ONLY).
 - ALL OTHER WORK INCLUSIVE TO THESE DRAWINGS.

GENERAL NOTES:

- FOR EXISTING TANK REMOVALS, TANK BACKFILL SHALL BE IN MAXIMUM 12 INCH LIFTS AND COMPACTED TO 90% DENSITY.
- ALL EXISTING PRODUCT, VAPOR AND VENT LINES AND ELEC. CONDUITS ASSOCIATED WITH UST SYSTEM SHALL BE REMOVED, UNLESS NOTED OTHERWISE.
- ALL EXISTING PRODUCT AND VAPOR LINES AT DISPENSER LOCATION SHALL BE REMOVED, UNLESS NOTED OTHERWISE.
- ALL EXISTING VENT RISERS, SHALL BE REMOVED. REPAIR WALL AS REQUIRED TO MATCH EXISTING.
- ALL EXISTING ELECTRICAL CONDUITS ASSOCIATED WITH TANKS TO BE REMOVED SHALL BE REMOVED. CONTRACTOR TO NOTE AT ELEC. PANEL WHICH BREAKERS CORRESPONDED TO ABANDONED CONDUITS FOR FUTURE USE OR FOR USE IN NEW TANK INSTALLATIONS.
- ALL IMPROVEMENTS INTERFERING WITH "REMOVALS" AND/OR INSTALLATIONS TO BE REMOVED AND RE-INSTALLED OR REPLACED IN KIND.
- ALL LANDSCAPING AND IRRIGATION INTERFERING WITH "REMOVALS" AND/OR INSTALLATIONS TO BE REMOVED AND RE-INSTALLED OR REPLACED IN-KIND.
- CONTRACTOR TO RESTORE SITE TO MATCH EXISTING CONDITIONS AFTER THE WORK IS DONE.
- CONTRACTOR SHALL FOLLOW THE MOST CURRENT EDITION OF THE SAN DIEGO COUNTY SITE ASSESSMENT AND MITIGATION MANUAL FOR GUIDANCE IN TANK REMOVALS AND ENCOUNTERING CONTAMINATED SOIL.
- CONTRACTOR TO USE EXISTING CLEAN, STOCKPILED SOIL FOR UNDERGROUND EXCAVATION TANK BACKFILL AND ADDITIONAL CLEAN IMPORT PEA GRAVEL OR APPROVED CLEAN FILL SOIL AS REQUIRED, AT NO ADDITIONAL COST TO THE CITY.

EXECUTION NOTES:

- STEP 1- STADIUM PERSONNEL WILL RELOCATE CONFLICTING FENCING AROUND DISPENSERS IN ADVANCE OF AST INSTALL.
- STEP 2- CONTRACTOR SHALL CONSTRUCT AST PAD, SET AST, AND PUT AST INTO SERVICE.
- STEP 3- CONTRACTOR SHALL DEMO UST SYSTEM, PUMPS, ISLAND AND FENCING. CONTRACTOR SHALL SET ANY AST BOLLARDS WHICH COULD NOT BE SET UNDER STEP 2 DUE TO CONFLICTS WITH UST SYSTEM.

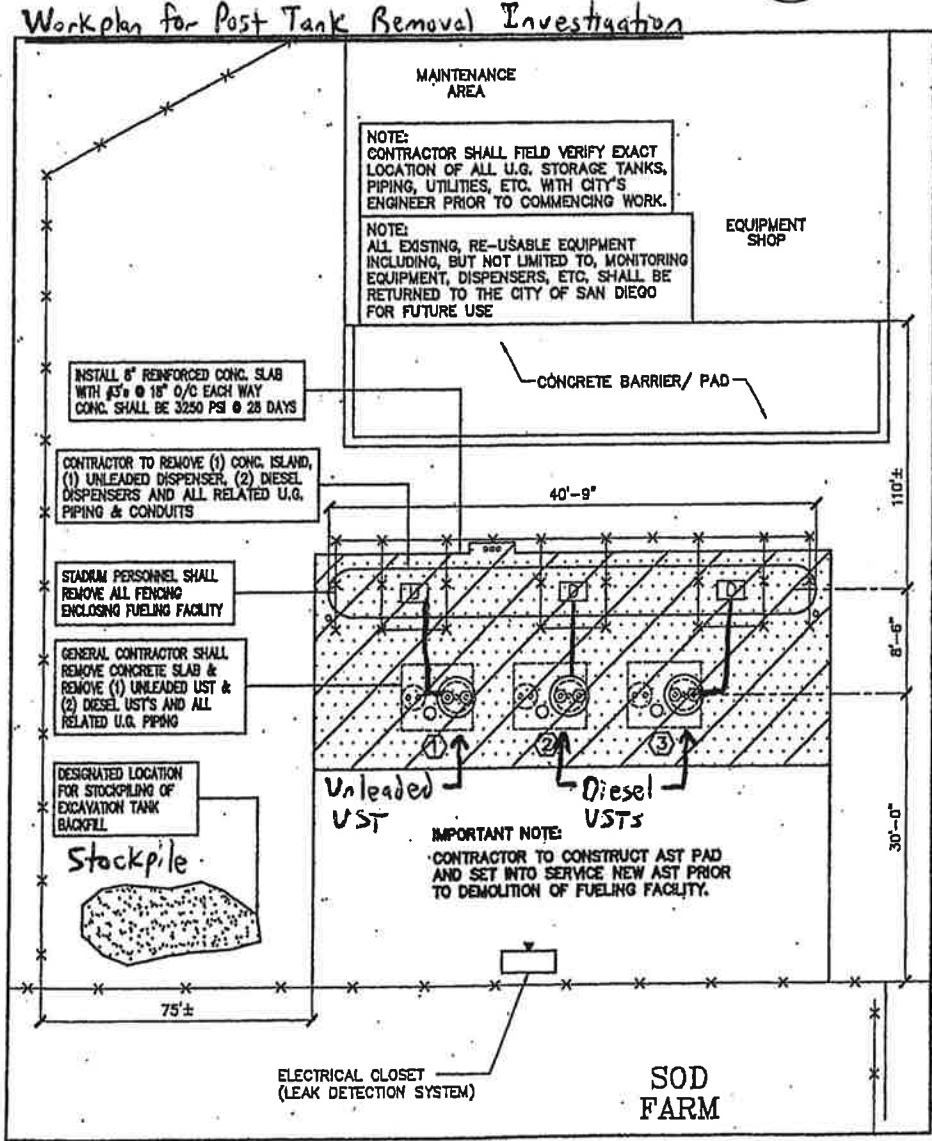
Site Investigation Area

TANK REMOVAL SCHEDULE			
TANK NO.	1	2	3
CAPACITY	1,000 GAL.	1,000 GAL.	1,000 GAL.
PRODUCT	UNLEADED	DIESEL	DIESEL
DATE REMOVED			
COUNTY H.M.M.D. EST. NO.	H21084		
EPA I.D. NO.	CAL 000 022 738		
MANIFEST NO.			
STATE B.O.E. NO.	44-021803		
UNAUTHORIZED RELEASE NO.			

LEGEND	
	INDICATES SAWCUT & REMOVAL OF CONCRETE PAVING
	INDICATES SOIL & LANDSCAPING TO BE REMOVED
	INDICATES NEW CONCRETE
	INDICATES STOCKPILED SOIL FOR TANK BACKFILL

DRAWING INDEX				
QUALCOMM STADIUM				
DWG. NO.	SHT. NO.	TITLE	ISSUE DATE	REV. DATE
G-1	1 OF 3	GENERAL ARRANGEMENT/DEMOLITION PLAN	04-29-03	08-04-03
A-1	2 OF 3	AST INSTALLATION DETAILS	04-29-03	08-04-03
S-1	3 OF 3	MISC. SITE DETAILS	04-29-03	08-04-03

REV. NO.	DATE	REVISED	REV. BY	CHK. BY	APP'D



DEMOLITION PLAN

SCALE: N.T.S.

GE
GARY ENGINEERING, INC.
 4901 MORENA BLVD., SUITE 304
 SAN DIEGO, CALIFORNIA 92117
 (858) 483-0620 FAX 483-2943

REGISTRED PROFESSIONAL ENGINEER
 ROBERT G. FAUDOS, JR.
 CIVIL
 STATE OF CALIFORNIA
 EXPIRES 08-30-08

SPECIFICATION NUMBER: 1752
 CIP NUMBER: 330840
CITY OF SAN DIEGO ENVIRONMENTAL SERVICES D
Qualcomm Stadium
 9449 Friars Road, San Diego, CA

GENERAL ARRANGEMENT/DEMOLITION PLAN

DESCRIPTION	BY	APPROVED	DATE	FILED
CITY OF SAN DIEGO, CALIFORNIA ENVIRONMENTAL SERVICES DEPARTMENT SHEET 1 OF 3 SHEETS	Chris Faudos	8/5/03		

W.O. NO. 3
 CONTRACTOR: _____ DATE STARTED: _____

LAND AND WATER QUALITY DIVISION
UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT

RECEIVED

ESTABLISHMENT NO. <u>H-21360</u>	PLAN CHECK NO. <u>AT 4948</u> FEB 11 2004
SITE NAME <u>Qualcom - City of SD</u>	PHONE _____ ES/ _____
SITE ADDRESS <u>9449 Friars</u>	CITY _____ ENVIRONMENTAL PROTECTION
CONTRACTOR <u>Jenel</u>	PHONE _____

Number of tanks to be removed 1 2 3 4 5 6 7 8 _____	FIRE AGENCY PRESENT <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Decontamination by <u>ESPR</u>	Dept. <u>SD</u>
Manifest No. <u>22984990</u>	Permit No. <u>H-Share TA 040134</u>
Tank rinsate/(amount & destination) <u>250 G - Dome Rock</u>	Inspector <u>M. Shea</u>

Tank ID No.	T2	T3	T4	REMARKS
Capacity	<u>gal 14</u>	<u>14</u>	<u>14</u>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Maintain Area Secure</div> <div style="border: 1px solid black; padding: 5px;"> * 0-6' - Sandy Silty + Cobble 6-7' Blue Gray Silty Clay + Many Cobble 7' (Sample Area) Tan Silty Clay + few Cobble </div>
Tank Construction	<u>FG Clad Steel</u>			
Materials stored	<u>G D D</u>			
% L.E.L.	<u>0</u>	<u>0</u>	<u>0</u>	
Dry ice/other (amt.)	<u>12</u>	<u>16</u>	<u>16</u>	
Tank condition	<u>Excellent</u>			
Backfill soil type	<u>Regravel</u>			
Backfill condition	<u>Good</u>			
Native soil type	<u>* *</u>	<u>*</u>	<u>*</u>	
Native condition	<u>Excellent</u>			
Excavation odors?	<u>N</u>	<u>N</u>	<u>N</u>	
Stockpile odors?	<u>N</u>	<u>N</u>	<u>N</u>	
Water present?	<u>N</u>	<u>N</u>	<u>N</u>	
Ponded product?	<u>N</u>	<u>N</u>	<u>N</u>	
Piping removed?	<u>N</u>	<u>N</u>	<u>N</u>	

REINSPECTION REQUIRED YES NO If yes, explain _____

NOTICE: You are hereby notified that on 1/16/04, an Environmental Health Specialist conducted an inspection for the closure of 3 hazardous substance underground storage tank(s). A summary of the conditions follows:

- An unauthorized release of a hazardous substance has been observed by the Environmental Health Specialist. You are hereby required to initiate Corrective Action measures (See Page 4 for details).
- A determination of this site's status is pending the Site Assessment and Mitigation (SAM) Program's receipt and review of analytical results for the samples taken from the tank and/or piping closure site. A laboratory report must be submitted to SAM within 30 days. Please request that the laboratory send a copy of the analytical report directly to EWAN MORFAT at the address provided below.
Fax (619) 338-2315

The SAM Program has completed its review of the analytical results for samples collected at the tank closure site and has determined the following:

TANK CLOSURE COMPLETE - NO FURTHER ACTION REQUIRED

INITIATE CORRECTIVE ACTION MEASURES (See enclosed information)

Reviewed by: Ewan Morfat Date Reviewed: 2/16/04 Supervisor Initial: MN

RECEIVED BY <u>Mike Savage</u>	 Environmental Health Specialist SAM - P.O. Box 129261 San Diego, CA 92112-9261
PRINTED NAME <u>MIKE SAVAGE</u>	(619) 338-2222
PHONE NUMBER <u>619 697-2200</u>	

DISTRIBUTION: WHITE-RETURN TO SAM
 YELLOW-BUSINESS RETAINS

Type(s) of hazardous substance(s) released (mark all that apply):

Gasoline Diesel Waste Oil Other _____

Is hazardous material ponded? Yes* No Estimated amount? _____

Estimated depth to groundwater below this site: 12' feet Beneficial use? Yes No

SOIL CONDITIONS (Odors, Staining, Volume): H-02325 AGR-907.11

Describe backfill and its condition: _____

Describe native soil and its condition: _____

} see other side, photos + Diagram

How was hazardous substance released? n/a

Tank condition (holes, corrosion, wrapping, seams, evidence or overfill) Very Good

Estimated length of piping removed? 10 feet Date tanks last used? ~ 2 Months ago

Nearby water wells or surface waters? Yes* None noted

*Describe SD River ~ 500' South

Any known sensitive receptors, i.e., underground vaults, utilities or basements nearby? Yes* None noted

*Describe _____

COMMENTS: TPH NO

1 LABE @ 19 ug/kg



P. O. Box 459, Lemon Grove, CA 91946 - Phone (619) 697-2200 - Fax (619) 697-2400

To: Nick Budreau
Company: CITY OF SAN DIEGO
Fax Number: 1-858-492-5041
Phone Number: 1-858-573-1256

From: Lee Fountain
Fax Number: 619-697-2400
Phone Number: 619-697-2200

Time Sent: Friday, Feb 20, 2004 09:20AM
Pages: 11
Description: Qualcomm Stadium Soil Analytical Report

Nick:

Attached is the soil analytical report for Qualcomm Stadium from the January 16th, 2004 soil sampling inspection.

If you need any further information, please contact us at (619) 697-2200.

Thank you,

Lee Fountain
Office Manager - Jenal Engineering Corporation
lsfountain@jenalinc.com



Dear Customer:

Please note that a copy of this report has been forwarded to the County of San Diego, Site Assessment & Mitigation Division.

H&P Project #: JE012004-31
Your Project: 9449 Friars Rd, RT#4948

If you have any questions, please give us a call at (760)735-3208.

Sincerely,

Sherry Watts
H&P Mobile Geochemistry

432 North Cedros Avenue, Solana Beach, California 92075 | 858.793.0401 — Fax 858.793.0404
148 South Vinewood Street, Escondido, California 92029 | 760.735.3208 — Fax 760.735.2469
2373 208th Street, Suite F-1, Torrance, California 90501 | 310.782.2929 — Fax 310.782.2798
www.HandPmg.com | 1-800-834-9888



MOBILE GEOCHEMISTRY
H&P

29 January 2004

Mr. Al Westermeyer
Jenal Engineering
POB 459
Lemon Grove, CA 91945
RE: JE012004-31

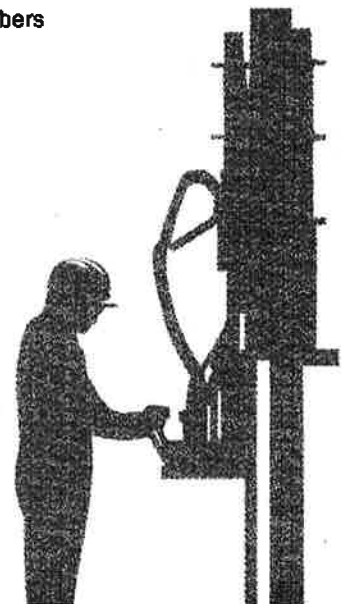
Enclosed are the results of analyses for samples received by the laboratory on 20-Jan-04 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tamara Davis
Tamara Davis
Laboratory Director

H&P Mobile Geochemistry mobile labs operate under CA Environmental Lab Accreditation Program Numbers 1561, 2088, 2278 and 2530.

432 North Cedros Avenue, Solana Beach, California 92075 | 858 793.0401 — Fax 858 793.0404
148 South Vinewood Street, Escondido, California 92029 | 760 735.3208 — Fax 760 735.2469
2373 208th Street, Suite F-1, Torrance, California 90501 | 310 782.2929 — Fax 310 782.2798
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Jenal Engineering
POB 459
Lemon Grove CA, 91945

Project: JE012004-31
Project Number: 9449 Friars Rd / RT # 4948
Project Manager: Mr. Al Westermeyer

Reported:
29-Jan-04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T2-9'	E401022-01	Soil	16-Jan-04	20-Jan-04
T3-9'	E401022-02	Soil	16-Jan-04	20-Jan-04
T4-9'	E401022-03	Soil	16-Jan-04	20-Jan-04



Jenal Engineering
POB 459
Lemon Grove CA, 91945

Project: JE012004-31
Project Number: 9449 Friars Rd / RT # 4948
Project Manager: Mr. Al Westermeyer

Reported:
29-Jan-04

Volatile Organic Compounds by EPA Method 8260B
H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
T2-9' (E401022-01) Soil Sampled: 16-Jan-04 Received: 20-Jan-04									
Methyl tert-butyl ether	19	5	ug/kg	0.5	EA42302	23-Jan-04	23-Jan-04	EPA 8260B	
Di-isopropyl ether	ND	5	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5	"	"	"	"	"	"	
Benzene	ND	5	"	"	"	"	"	"	
Toluene	ND	5	"	"	"	"	"	"	
Ethylbenzene	ND	5	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	5	"	"	"	"	"	"	
Tert-butyl alcohol	ND	25	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		101 %		65-135	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		101 %		52-149	"	"	"	"	
Surrogate: Toluene-d8		98.4 %		65-135	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.6 %		65-135	"	"	"	"	



Jenal Engineering
POB 459
Lemon Grove CA, 91945

Project: JE012004-31
Project Number: 9449 Friars Rd / RT # 4948
Project Manager: Mr. Al Westermeyer

Reported:
29-Jan-04

TPH by GC FID

H&P Mobile Geochemistry Lab L3

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
T2-9' (E401022-01) Soil Sampled: 16-Jan-04 Received: 20-Jan-04									
Diesel (C12-C24)	ND	10	mg/kg	1	3A42602	26-Jan-04	26-Jan-04	DHS LUPT/8015M	
Gasoline (C5-C11)	ND	10	"	"	"	"	"	"	
T3-9' (E401022-02) Soil Sampled: 16-Jan-04 Received: 20-Jan-04									
Diesel (C12-C24)	ND	10	mg/kg	1	3A42602	26-Jan-04	26-Jan-04	DHS LUPT/8015M	
Gasoline (C5-C11)	ND	10	"	"	"	"	"	"	
T4-9' (E401022-03) Soil Sampled: 16-Jan-04 Received: 20-Jan-04									
Diesel (C12-C24)	ND	10	mg/kg	1	3A42602	26-Jan-04	26-Jan-04	DHS LUPT/8015M	
Gasoline (C5-C11)	ND	10	"	"	"	"	"	"	



Jenal Engineering
POB 459
Lemon Grove CA, 91945

Project: JE012004-31
Project Number: 9449 Friars Rd / RT # 4948
Project Manager: Mr. Al Westermeyer

Reported:
29-Jan-04

Volatile Organic Compounds by EPA Method 8260B - Quality Control
H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA42302 - EPA 5030										
Blank (EA42302-BLK1)										
Prepared & Analyzed: 23-Jan-04										
Methyl tert-butyl ether	ND	5.0	ug/kg							
Di-isopropyl ether	ND	5.0	"							
Ethyl tert-butyl ether	ND	5.0	"							
Tert-amyl methyl ether	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
m,p-Xylene	ND	10	"							
o-Xylene	ND	5.0	"							
Tert-butyl alcohol	ND	25	"							
<i>Surrogate: Dibromofluoromethane</i>	24.7		"	25.0		98.8	65-135			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	22.5		"	25.0		90.0	52-149			
<i>Surrogate: Toluene-d8</i>	24.3		"	25.0		97.2	65-135			
<i>Surrogate: 4-Bromofluorobenzene</i>	22.9		"	25.0		91.6	65-135			
Matrix Spike (EA42302-MS1)										
Source: E401022-01 Prepared & Analyzed: 23-Jan-04										
Benzene	29.6	5.0	ug/kg	25.0	1.0	114	65-135			
Toluene	32.4	5.0	"	25.0	4.8	110	64-135			
<i>Surrogate: Dibromofluoromethane</i>	23.5		"	25.0		102	65-135			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	25.1		"	25.0		100	52-149			
<i>Surrogate: Toluene-d8</i>	24.6		"	25.0		98.4	65-135			
<i>Surrogate: 4-Bromofluorobenzene</i>	22.3		"	25.0		89.2	65-135			
Matrix Spike Dup (EA42302-MSD1)										
Source: E401022-01 Prepared & Analyzed: 23-Jan-04										
Benzene	29.1	5.0	ug/kg	25.0	1.0	112	65-135	1.70	30	
Toluene	32.4	5.0	"	25.0	4.8	110	64-135	0.00	30	



Jenal Engineering
POB 459
Lemon Grove CA, 91945

Project: JE012004-31
Project Number: 9449 Friars Rd / RT # 4948
Project Manager: Mr. Al Westermeyer

Reported:
29-Jan-04

Volatile Organic Compounds by EPA Method 8260B - Quality Control
H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA42302 - EPA 5030										
Matrix Spike Dup (EA42302-MSD1)										
			Source: E401022-01		Prepared & Analyzed: 23-Jan-04					

Surrogate: Dibromofluoromethane	24.7		ug/kg	25.0		98.8	65-135			
Surrogate: 1,2-Dichloroethane-d4	24.8		"	25.0		99.2	52-149			
Surrogate: Toluene-d8	24.3		"	25.0		97.2	65-135			
Surrogate: 4-Bromofluorobenzene	22.3		"	25.0		89.2	65-135			



Jenal Engineering
POB 459
Lemon Grove CA, 91945

Project: JE012004-31
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Reported:
29-Jan-04

TPH by GC FID - Quality Control
H&P Mobile Geochemistry Lab L3

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3A42602 - LUFT-DHS										
Blank (3A42602-BLK1)										
Prepared & Analyzed: 26-Jan-04										
Diesel (C12-C24)	ND	10	mg/kg							
Gasoline (C5-C11)	ND	10	"							
Matrix Spike (3A42602-MS1)										
Source: 3401018-08 Prepared & Analyzed: 26-Jan-04										
Diesel (C12-C24)	252	10	mg/kg	251	ND	100	67-135			
Gasoline (C5-C11)	149	10	"	151	ND	98.7	67-135			
Matrix Spike Dup (3A42602-MSD1)										
Source: 3401018-08 Prepared & Analyzed: 26-Jan-04										
Diesel (C12-C24)	214	10	mg/kg	251	ND	85.3	67-135	16.3	30	
Gasoline (C5-C11)	163	10	"	151	ND	108	67-135	8.97	30	



Jenal Engineering
POB 459
Lemon Grove CA, 91945

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Reported:
29-Jan-04

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

8260 B+ M+BE+ Oxygander

Project Name Qualicum - City of SD
 Reference Tened
 Address 9449 FRISBYS RD.
 Samplers Signature [Signature]
 Lab To Be Used HP LABS

ANALYSIS REQUESTED					SAMPLE TYPE			
TPH G/D METHOD	TRPH EPA 418.1	BTXE (8021/8280)	HALOGENATED (8010/8011)		SOLID	LIQUID	GRAB	COMPOSITE
X		X			X		X	

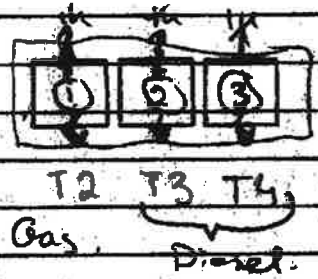
COPY OF LAB RESULTS MUST BE SENT TO:
 Dept. of Environmental Health
 Land and Water Quality Division
 P.O. Box 129261
 San Diego, CA 92112-9261

SAMPLE NO.	DATE	TIME	LOCATION
T2 - 9'	1/16/04	10:05 AM	Shed
T3 - 9'		10:15	
T4 - 9'		10:20	

TPH G/D METHOD	TRPH EPA 418.1	BTXE (8021/8280)	HALOGENATED (8010/8011)	SOLID	LIQUID	GRAB	COMPOSITE
X		X		X		X	

NO OF CONTAINERS
 COMMENTS
 1 Moist Silty Clay (Tan)

- ①
- ②
- ③



① RELINQUISHED BY	Date	② RELINQUISHED BY	Date	③ RELINQUISHED BY	Date
[Signature]	1/20/04				
Signature Forest Adams		Signature		Signature	
Printed Name J.E.C	Time 4:35 PM	Printed Name	Time	Printed Name	Time
Company		Company		Company	
RECEIVED BY [Signature]	Date	RECEIVED BY	Date	RECEIVED BY	Date
Signature R Johnson	1/20/04	Signature		Signature	
Printed Name HEP	Time	Printed Name	Time	Printed Name	Time
Company		Company		Company	

3 TOTAL NO. OF CONTAINERS
 Sample Conditions
 Received On Ice Yes/No
 Tape Seal Intact Yes/No
 Special Shipment/Handling Or Storage Requirements:
 Fox 838-2315
 Split Sample Location
 Site Identification
 H# 21360
 AT# 4948
 SAM [Signature]



CITY OF SAN DIEGO
**FIRE & LIFE
 SAFETY SERVICES**

1010 SECOND AVENUE, SUITE #300
 SAN DIEGO, CA 92101
 PHONE: (619) 533-4477 / (619) 533-4449

FIMS FILE # _____ SQ # _____
 PERMIT# TA 040135
 RECEIPT # _____
 DATE RECEIVED 9/12/83
 CK # _____ \$ _____

**Hazardous Material
 Permit Application (Fire Dept.)**

SITE ADDRESS	NAME (OR NAME OF BUSINESS) City of San Diego - Qualcomm Stadium			NAME (IF NOT OWNER) Pending		
	ADDRESS (NUMBER) (STREET) 9449 Friars Rd			MAILING ADDRESS (NUMBER) (STREET)		
	CITY San Diego	ZIP 92108	TELEPHONE NO. (619)641-3110	CITY	ZIP	TELEPHONE NO.
OWNER	NAME (IF NOT OWNER) City of San Diego			PROVIDE CONTRACTOR LICENSE		
	MAILING ADDRESS (NUMBER) (STREET) 9601 Ridgeway Ct, Suite 310			SIGNATURE TOWNER OR AGENT REQUIRED <i>Theodore W. Olson</i>		DATE SIGNED 7-17-03
	CITY San Diego	ZIP 92123	TELEPHONE NO. (858)573-1268	PRINT NAME Theodore W. Olson		(858)573-1266 phone
COMPENSATION/LIABILITY INSURANCE: (OF CONTRACTOR OR OWNER) PROOF REQUIRED FOR EACH APPLICATION						PHONE NUMBER: (858)492-3041 fax

NO OF TANKS	WORK PERFORMED: NEW, REMOVED, ETC.	TANK CAPACITY GALLONS (Pressurized Gas Cylinders in cu. ft.)	TYPE OF HAZARDOUS MATERIAL STORED OR USED	TYPE OF STORAGE: ABOVE GROUND, BELOW GROUND	TYPE OF SUPPLY: PUMP, PRESSURE, INTERNAL PRESSURE, OR GRAVITY	DISTANCE INSTALLED FROM BUILDING	DISTANCE INSTALLED FROM PROPERTY LINE
1	New	1,500 gallon	1,000 diesel 500 unleaded	Above	Suction	100 ft	75 ft

OTHER HAZARDOUS MATERIALS:
SOIL REMEDIATION:

REPIPE:

MEDICAL GAS / COMPRESSED GAS SYSTEM:
COMMENTS:

FIRE DEPARTMENT USE ONLY

DATE	INSPECTOR'S NAME	COMMENTS

- 1. White Copy - Permit
- 2. Canary Copy - Office File (HMM)
- 3. Pink Copy - Records
- 4. Goldenrod Copy - Permittee's/Receipt

APPLICATION APPROVED: _____

 DEPUTY FIRE MARSHAL

DATE _____



**CITY OF SAN DIEGO
FIRE & LIFE
SAFETY SERVICES**

1010 SECOND AVENUE, SUITE #300
SAN DIEGO, CA 92101
PHONE: (619) 533-4477 / (619) 533-4449

FIMS FILE # _____ SQ # _____
 PERMIT# TA 040134
 RECEIPT # _____
 DATE RECEIVED 9/12/03
 CK #: _____ \$ _____

**Hazardous Material
Permit Application (Fire Dept.)**

SITE ADDRESS	NAME (OR NAME OF BUSINESS) City of San Diego - Qualcomm Stadium			NAME (IF NOT OWNER) Pending			
	ADDRESS (NUMBER) (STREET) 9449 Friars Rd			MAILING ADDRESS (NUMBER) (STREET)			
	CITY San Diego	ZIP 9 2 1 0 8	TELEPHONE NO. (619)641-3110	CITY	ZIP	TELEPHONE NO.	
OWNER	NAME (IF NOT OWNER) City of San Diego			PROVIDE CONTRACTOR LICENSE			
	MAILING ADDRESS (NUMBER) (STREET) 9601 Ridgehaven Ct, Suite 310			SIGNATURE (OWNER OR AGENT) REQUIRED <i>Theodore H. Olson</i>		DATE SIGNED 7-17-03	
	CITY San Diego	ZIP 9 2 1 2 3	TELEPHONE NO. (858)573-1266	PRINT NAME Theodore H. Olson		(858)573-1266 phone	
COMPENSATION/LIABILITY INSURANCE: (OF CONTRACTOR OR OWNER) PROOF REQUIRED FOR EACH APPLICATION			PHONE NUMBER: (858)492-5061		FAX NUMBER: fax		

NO. OF TANKS	WORK PERFORMED: NEW, REMOVED, ETC.	TANK CAPACITY GALLONS (Pressurized Gas Cylinders in cu. ft.)	TYPE OF HAZARDOUS MATERIAL STORED OR USED	TYPE OF STORAGE: ABOVE GROUND, BELOW GROUND	TYPE OF SUPPLY: PUMP, PRESSURE, INTERNAL PRESSURE OR GRAVITY	DISTANCE INSTALLED FROM BUILDING	DISTANCE INSTALLED FROM PROPERTY LINE
1	Remove	1,000 gallon	Unleaded	Below	Turbine	100 ft	75 ft
1	Remove	1,000 gallon	Diesel	Below	Turbine	100 ft	75 ft
1	Remove	1,000 gallon	Diesel	Below	Turbine	100 ft	75 ft

OTHER HAZARDOUS MATERIALS:
SOIL REMEDIATION:

REPIPE:

MEDICAL GAS / COMPRESSED GAS SYSTEM:
COMMENTS:

FIRE DEPARTMENT USE ONLY

DATE	INSPECTOR'S NAME	COMMENTS

- 1. White Copy - Permit
- 2. Canary Copy - Office File (HMM)
- 3. Pink Copy - Records
- 4. Goldenrod Copy - Permittee's/Receipt

APPLICATION APPROVED: _____
 DEPUTY FIRE MARSHAL
 DATE _____



THE CITY OF SAN DIEGO

June 17, 2002

Michael Mann, R.E.H.S.
County of San Diego
Department of Environmental Health
Hazardous Materials Division
P.O. Box 129261
San Diego, CA 92112-9261

Dear Mr. Mann:

Subject: Qualcomm Stadium Regulatory Inspection Followup Response (H21360)

I am writing to document corrective actions taken in response to your June 6, 2002 inspection at Qualcomm Stadium. All items identified in your June 11, 2002 inspection report have been taken care of.

We are enclosing an unauthorized release report documenting the discovery of a slow dripping leak on diesel dispenser #1 (west diesel dispenser). The leak was found to be occurring at the differential valve at the solenoid assembly and was repaired by Western Pump while on site immediately following your inspection. A copy of Western's service report is enclosed for your records. As discussed during the inspection, this site will be upgraded sometime between December 2002 and December 2003 either by providing under dispenser containment or by removing the UST system altogether. Under either scenario, the dispenser in question would be removed under a permit and soil samples would be collected from beneath the dispenser as part of this process. We respectfully request that the City be permitted to assess the presence and extent of any soil contamination resulting from the release at the point in time when the dispenser has been removed as soils underlying the dispenser will be accessible.

Water found in the fill and turbine sumps of the No. 1 diesel UST and gasoline UST was removed by Western Pump during the inspection and placed into labeled re-sealable buckets. The water has since been removed and properly disposed of by Safety-Kleen.

The No. 2 diesel UST annular sensor (west diesel UST) was properly repositioned by Western Pump during the inspection. The sensor cable was fitted with a length of fish tape to ensure that the sensor can be guided to the low point of the offset annular riser in the future. The sleeved sump sensors in question were repositioned during the inspection.



Environmental Protection Division • Environmental Services Department

9601 Ridgehaven Court, Suite 310 • San Diego, CA 92123

Tel (858) 492-5051 Fax (858) 492-5041

Page 2

Mr. Michael Mann

June 17, 2002

Gasoline-contaminated sump water located inside the hazardous waste storage area was repackaged into a sound leak-proof container. This waste has since been picked up and properly disposed of by Safety-Kleen.

We are also enclosing a completed Corrective Action Form for your records. Please call me at (858) 627-3311 if you have any questions.

Sincerely,



Craig Fergusson

Associate Engineer - Civil

CF/cef

Enclosures: 1. Unauthorized Release Report documenting leak at west diesel dispenser
 2. Western Pump service report documenting work at site
 3. completed Corrective Action Form

cc: Cris Leyco, Stadium Safety Representative, MS 34
 Chris Gonaver, Deputy Director, Environmental Protection Division
 Ted Olson, UST Program Manager, Environmental Protection Division
 Cheryl Lester, Supervising Hazardous Materials Inspector, Environmental Protection Div.

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.		
REPORT DATE 06/13/02		CASE #		SIGNED _____ DATE _____		
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Craig Fergusson		PHONE (858) 627-3311		SIGNATURE 	
	REPRESENTING <input type="checkbox"/> LOCAL AGENCY <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> OTHER		COMPANY OR AGENCY NAME City of San Diego			
ADDRESS 9601 Ridgeway Court, Suite 310 San Diego CA 92103						
RESPONSIBLE PARTY	NAME City of San Diego <input type="checkbox"/> UNKNOWN		CONTACT PERSON Theodore W. Olson		PHONE (858) 573-1273	
	ADDRESS 9601 Ridgeway Court, Suite 310 San Diego CA 92103					
SITE LOCATION	FACILITY NAME (IF APPLICABLE) SDCTY Qualcomm Stadium		OPERATOR City of San Diego		PHONE (858) 573-1273	
	ADDRESS 9449 Friars Road San Diego CA 92108					
	CROSS STREET Mission Village Drive					
IMPLEMENTING AGENCIES	LOCAL AGENCY AGENCY NAME		CONTACT PERSON		PHONE ()	
	REGIONAL BOARD				PHONE ()	
SUBSTANCES INVOLVED	(1) NAME Diesel Fuel				QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN	
	(2)				<input type="checkbox"/> UNKNOWN	
DISCOVERY/ABATEMENT	DATE DISCOVERED 06/06/02		HOW DISCOVERED <input type="checkbox"/> TANK TEST <input type="checkbox"/> TANK REMOVAL <input checked="" type="checkbox"/> OTHER <u>DEH Compliance Inspection</u>			
	DATE DISCHARGE BEGAN <input checked="" type="checkbox"/> UNKNOWN		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> CLOSE TANK & REMOVE <input checked="" type="checkbox"/> REPAIR PIPING <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> CLOSE TANK & FILL IN PLACE <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> REPLACE TANK <input type="checkbox"/> OTHER			
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE 06/06/02					
SOURCE/CAUSE	SOURCE OF DISCHARGE Diesel Dispenser #21		CAUSE(S)			
	<input checked="" type="checkbox"/> PIPING LEAK (Dispenser) <input type="checkbox"/> TANK LEAK <input type="checkbox"/> UNKNOWN <input type="checkbox"/> OTHER		<input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input type="checkbox"/> CORROSION <input type="checkbox"/> UNKNOWN <input checked="" type="checkbox"/> OTHER <u>Loose fitting</u>			
CASE TYPE	CHECK ONE ONLY <input checked="" type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)					
	CHECK ONE ONLY <input checked="" type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED <input type="checkbox"/> POLLUTION CHARACTERIZATION <input type="checkbox"/> LEAK BEING CONFIRMED <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT UNDERWAY <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> REMEDIATION PLAN <input type="checkbox"/> CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> CLEANUP UNDERWAY					
REMEDIAL ACTION	CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS)					
	<input type="checkbox"/> CAP SITE (CD) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input type="checkbox"/> VACUUM EXTRACT (VE)		<input type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> OTHER (OT)		<input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> VENT SOIL (VS)	
COMMENTS	Small drip discovered during DEH compliance inspection on diesel dispenser #21. Fitting on dispenser tightened to fix leak. Dispenser will be removed as part of SB 989 process, no later than 12-31-03. City proposes to assess release at that time when soils are accessible.					

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.		
REPORT DATE 06/13/02		CASE #		SIGNED _____ DATE _____		
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Craig Fergusson		PHONE (858) 627-3311		SIGNATURE 	
	REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER		COMPANY OR AGENCY NAME City of San Diego			
	ADDRESS 9601 Ridgehaven Court, Suite 310 San Diego CA 92103					
RESPONSIBLE PARTY	NAME City of San Diego <input type="checkbox"/> UNKNOWN		CONTACT PERSON Theodore W. Olson		PHONE (858) 573-1273	
	ADDRESS 9601 Ridgehaven Court, Suite 310 San Diego CA 92103					
SITE LOCATION	FACILITY NAME (IF APPLICABLE) SDCTY Qualcomm Stadium		OPERATOR City of San Diego		PHONE (858) 573-1273	
	ADDRESS 9449 Friars Road San Diego CA 92103					
	CROSS STREET Mission Village Drive					
IMPLEMENTING AGENCIES	LOCAL AGENCY AGENCY NAME		CONTACT PERSON		PHONE ()	
	REGIONAL BOARD				PHONE ()	
SUBSTANCES INVOLVED	(1) NAME Diesel Fuel				QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN	
	(2)				<input type="checkbox"/> UNKNOWN	
DISCOVERY/ABATEMENT	DATE DISCOVERED 06/06/02		HOW DISCOVERED <input type="checkbox"/> TANK TEST <input type="checkbox"/> TANK REMOVAL <input checked="" type="checkbox"/> OTHER DEH Compliance Inspection			
	DATE DISCHARGE BEGAN <input checked="" type="checkbox"/> UNKNOWN		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> CLOSE TANK & REMOVE <input checked="" type="checkbox"/> REPAIR PIPING <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> CLOSE TANK & FILL IN PLACE <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> REPLACE TANK <input type="checkbox"/> OTHER			
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE 06/06/02					
SOURCE/CAUSE	SOURCE OF DISCHARGE Diesel Dispenser #21		CAUSE(S) <input checked="" type="checkbox"/> PIPING LEAK (Dispenser) <input type="checkbox"/> TANK LEAK <input type="checkbox"/> UNKNOWN <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input type="checkbox"/> CORROSION <input type="checkbox"/> UNKNOWN <input checked="" type="checkbox"/> OTHER Loose fitting			
	CASE TYPE <input checked="" type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)					
CURRENT STATUS	CHECK ONE ONLY <input checked="" type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED <input type="checkbox"/> POLLUTION CHARACTERIZATION <input type="checkbox"/> LEAK BEING CONFIRMED <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT UNDERWAY <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> REMEDIATION PLAN <input type="checkbox"/> CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> CLEANUP UNDERWAY					
	CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS) <input type="checkbox"/> CAP SITE (CD) <input type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> VENT SOIL (VS) <input type="checkbox"/> VACUUM EXTRACT (VE) <input type="checkbox"/> OTHER (OT)					
COMMENTS	Small drip discovered during DEH compliance inspection on Diesel Dispenser #21. Filling on dispenser tightened to fix leak. Dispenser will be removed as part of SB 200 process no later than 12/31/03. City prepared to discuss removal of this fuel dispenser with city and responsible.					

CET / WESTERN PUMP

petroleum & lubrication equipment specialists

3235 "F" Street
 San Diego, California 92102
 (619) 239-9988 • Fax (619) 239-9925



DATE	SERVICE INVOICE NUMBER
6-6-02	1083-C

SERVICE INVOICE

I N V O I C E	NAME	J O B L O C A T I O N	NAME	City of San Diego		
	ADDRESS		ADDRESS	Qualcomm Stadium		
	CITY STATE ZIP		CITY STATE ZIP			
	TELEPHONE		TELEPHONE			
	CUSTOMER CONTACT		CUSTOMER CONTACT	Craig Ferguson		
CUSTOMER ORDER NUMBER		C.O.D.	CHARGE	WARRANTY	SALESMAN	CALL NUMBER

SERVICE REQUESTED CERTIFY LEAK MONITOR - CALIBRATE METERS - CHECK LIST

~~ITEM # 9~~ CERTIFIED LEAK MONITOR - VEEDER-ROOT TCS-350 - 9 SENSORS
 SERVICE PERFORMED # 3 TANK LEVEL PROBES WITH OVERFILL ALARM, ALL OK
 ITEM # 5 CALIBRATED 3 METERS ON 3 DISPENSERS
 ITEM # 7 TESTED 3 MECHANICAL LEAK DETECTORS - 3 TANKS
 ITEM # 8 TESTED 3 TURBINE RELAYS

S	QUANTITY	ITEM NUMBER	DESCRIPTION	PRICE	AMOUNT
		ITEM # 3	REMOVED WATER FROM Sumps REPOSITIONED SENSOR TO LOW POINT OF TANK # 3 ANNUAL USING RISH TAP TO PUSH PAST 2-45° & INTO TANK REPAIRED LEAK ON DISPENSER # 2 - LEAKING AT DIFFERENTIAL VALVE REPAIRED LEAK ON LEAK DETECTOR ON TANK # 1 W/1 # 2 DIESEL TANKS - COULDN'T REMOVE LID HAD TO CUT BOLTS OFF BUCKETS NEED TO BE REPAIRED - REPLACED		
		ITEM # 12	1 5gal Pail P.N. USC 10550-50 1 5gal Lid P.N. USC 10170-50 1 HAZARDOUS WASTE STICKER P.N. CET SP102		

DATE	MECHANIC	ARRIVE	DEPART	LABOR	TRAVEL	TOTAL	TOTAL PARTS
6-6	WILL BR	8:00	2:30	6.5	.75	7.25	
6-6	TRAC BUN	8:00	2:30	6.5	.75	7.25	SALES TAX
							MILES
MAKE	MODEL	SERIAL NO.	MAKE	MODEL	SERIAL NO.		
						LABOR	
RECEIVED BY						DATE	TOTAL SALE



COUNTY OF SAN DIEGO

CORRECTIVE ACTION FORM TO DOCUMENT RETURN TO COMPLIANCE

PERMIT # 121360

SPECIALIST MIKE MANN

INSPECTION DATE: 6/6/02

CONTACT _____

BUSINESS NAME SDCTY - QUALCOMM STADIUM

ADDRESS 9449 FRIARS RD. CITY SAN DIEGO ZIP 92108

VIOL #	DATE CORRECTED	INDICATE HOW VIOLATIONS WERE CORRECTED (ATTACH ANY SUPPORTING DOCUMENTATION TO THIS FORM)
1	6-6-02	Drip at solenoid differential valve on west diesel dispense was repaired by tightening the assembly.
2	6-6-02	Water was removed from sumps and placed into re-sealable buckets with proper labeling. Waste has since been picked up and properly disposed by Safety-Kleen
3	6-6-02	No. 2 diesel annular sensor repositioned to lowpoint by fitting a length of fish tape to sensor cable. Steved sump sensors in question were re-positioned
4	6/6/02	Hazardous waste container was repackaged into a sound leakproof container.
5		
6		
7		
8		
9		
10		

I certify under penalty of law that this business/site has corrected all violations marked on the Compliance Inspection Report /Notice of Violation. I have personally examined and am familiar with the information submitted and believe the information is true, accurate and complete. I am authorized to file this certification for the business/site, and am aware that there are significant penalties for submitting false information.

Responsible Party (Print Name): Craig Ferrarsson Job Title Associate Engineer - Civil

Signature of Responsible Party: [Signature] Date: 6/17/02

< Mail completed form and supporting documentation to the address listed below >

COUNTY OF SAN DIEGO USE ONLY: Reviewed by: _____ Date: _____
Specialist's comments: _____



**Hazmat Incidence Response Team
(HIRT)
HAZMAT INCIDENT RESPONSE REPORT**

no # needed

HIRT #: _____ CHMIRS #: _____
 DATE: 11/16/94 TOTAL TIME: 1.6 *INCIDENT TYPE: 20

INIT DISPATCH: 17.40 SCENE ARRIVAL: 16.15 RETURN HQTS: 19.20 ADMIN: _____

LOCATION: Frivers Road San Diego @ I 15
 STREET # _____ STREET NAME _____ CROSS-STREET _____
Jack Murphy Stadium 92108 (Y) N 1299 F-7
 CITY ZIP INCORPORATED AREA TB BROS PG/COORD
 JURISDICTION _____

FIRE DISTRICT: _____ PHONE: _____
 RESPONDING AGENCIES HMMD SDFD HAZMAT
 AGENCY CONTACT NAME NAME
SDFD IC Vern Benson Ed Slater CAPT Benson

RESPONSIBLE PARTY
 (Enter all information for disposal follow-up and Billing processing)
 NAME/CONTACT: Herzog Contracting DOB: / / DRIVERS LIC #: _____
 COMPANY: _____ H#: _____
 ADDRESS: _____ PHONE: _____
 PROPERTY OWNER: _____ PHONE: _____
 ADDRESS: _____ APN: _____

HAZARDOUS MATERIALS					
CHEMICAL NAME	# OF CONTAINERS	TOTAL QTY	UNIT (Gal, Lbs)	QUANTITY RELEASED	DOT HAZARD CLASS (1-9)
<u>water fuel release</u>			<u>1000 gal.</u>		

(Include circumstances initiating response)
NARRATIVE
 SDFD Dispatch reported a 1000 gallon fuel spill with water. Reported spill in SE corner Jack Murphy Stadium parking lot. Contacted Str 41 and responded. Site was not manned. We same area and called SDFD dispatch for call back number. Doug Roff, (Bawett Consulting) stated he was a consultant to MTD for the Stadium trolley expansion. He advised Herzog Contracting to make a notification.

SITE SAFETY PLAN: (HMMD) SDFD FFD PHONE RESPONSE ONLY? Y (N)

FOLLOW-UP ACTION REQUIRED:
Yes, Notify S/Am - Chuck Lethotsky is contact for MTD releases

SUPERFUND ER#: _____ MANIFEST: _____ PROP 65: Y N
 CLEAN-UP COMPANY: _____ HIRT COST: \$ _____
 COPIES TO: ODP, SDFD HAZMAT
 REPORT BY: Ed Slater AGENCY: (HMMD) SDFD FFD COST RECOVERY: Y N

Additional Information on Comments Page

NARRATIVE

- Daeg Roff - Barnett Consulting 536-5610 is in contact with Chuck Lehotsky, SAM. for all issues on this site.
Mr. Roff will contact Chuck Lehotsky to provide a full report.
Mr. Roff stated the fuel/water mixture was produced during dewatering of trolley tower footings.
No water/fuel entered the San Diego River.
Chuck Lehotsky - SAM - will follow up on this incident.
- on 11-17-95 I contacted Station 41 to notify Capt. Benson that this run will be logged as a HIRT report.
- No site safety plan was written, it was not needed, no fuel was observed during a walk through of the South East corner of the Stadium parking lot.

HAZARDOUS MATERIALS

CHEMICAL NAME	# OF CONTAINERS	TOTAL QTY	UNIT (Gal, Lbs)	QUANTITY RELEASED	DOT HAZARD CLASS (1-9)

COMMENTS/MAPS

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

CLEANUP AND ABATEMENT ORDER NO. 92-01

SANTA FE PACIFIC PIPELINE PARTNERS, L.P.
SHELL OIL COMPANY
MOBIL OIL CORPORATION
POWERINE OIL COMPANY

MISSION VALLEY TERMINAL
9950 SAN DIEGO MISSION ROAD
SAN DIEGO, CALIFORNIA
SAN DIEGO COUNTY

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that:

1. Santa Fe Pacific Pipeline Partners, L.P. owns property located at 9950 San Diego Mission Road in San Diego, hereinafter the Mission Valley Terminal. Attachment 1 to this Order is a location map for the site.
2. Santa Fe Pacific Pipeline owns and operates aboveground petroleum storage tanks at this location and also leases to the following companies which also own and/or operate aboveground petroleum storage tanks at the facility: Shell Oil Company, Mobil Oil Corporation, and Powerine Oil Company.
3. On March 14 and 20, April 25, and October 7, 1991, Regional Board staff inspected the Mission Valley Terminal pursuant to authority under section 25270.5 (b) of Chapter 6.67, Division 20 of the California Health and Safety Code (Aboveground Petroleum Storage Act) and Section 13267 of the California Water Code. These inspections were conducted to verify compliance with the operator's Spill Prevention Control and Countermeasure (SPCC) Plans and to determine if a monitoring program is necessary to detect releases to groundwaters, surface waters and/or sensitive ecosystems.
4. According to information received by Regional Board staff which includes inspection findings, storage statements, and SPCC Plans for the Mission Valley Terminal, products that are stored at the Mission Valley Terminal include both leaded and unleaded gasoline additives, and diesel.

5. Santa Fe Pacific Pipeline reports that it commenced operations at the Mission Valley Terminal in 1963 and the approximate aboveground petroleum storage capacity at the terminal for tanks it owns and/or operates is 18,690,000 gallons. The oldest tanks are approximately 30 years old.
6. Shell Oil Company reports it owns and operates aboveground petroleum storage tanks with an approximate capacity of 4,550,000 gallons at the Mission Valley Terminal and the oldest tanks are approximately 30 years old.
7. Mobil Oil Corporation reports it owns and operates an aboveground petroleum storage tank at the Mission Valley Terminal which is approximately 29 years old and has an estimated capacity of 1,130,000 gallons.
8. Powerine Oil Company reports that the aboveground petroleum storage tanks it owns at the Mission Valley Terminal, which are currently leased to Buck Petroleum Company, have a capacity of approximately 1,680,000 gallons. There are no records for the age of the tanks, but it is known that they are at least 18 years old.
9. On February 6 and July 10, 1991, this Regional Board office received reports prepared by Environmental Science & Engineering, Inc. for Shell Oil Company dated January 22 and June 20, 1991 entitled "Fourth Quarter 1990 Groundwater Monitoring Report for the Shell Mission Valley Fuel Distribution Terminal" and "Second Quarter 1991 Groundwater Monitoring Report for the Shell Mission Valley Fuel Distribution Terminal". These reports indicate that a number of groundwater monitoring wells at the Mission Valley Terminal have been monitored since 1988 and as much as 0.5 foot of free petroleum hydrocarbon product was measured on the groundwater surface in January 1989. Groundwater samples collected from wells without free product have indicated as much as 400 ug/L benzene, 60 ug/L toluene, 280 ug/L ethylbenzene, and 540 ug/L xylenes.
10. On July 15, August 28, and November 12, 1991, the Regional Board received reports prepared by Applied Environmental Services for Santa Fe Pacific Pipeline Partners, L.P. dated June 12, July 29, and October 25, 1991, respectively. Each of these reports are entitled "Quarterly Groundwater Monitoring Report" and report groundwater analytical results for sampling in May, June, and September 1991. More than one foot of free product was observed in a groundwater monitoring well in May, June, and September while benzene was reported at 3.8 ug/L, 4.2 ug/L, and 4.9 ug/L for May, June and

September, respectively, for another monitoring well. The greatest reported concentrations for toluene, ethylbenzene, and xylenes have been 0.8 ug/L, 6.5 ug/L, and 10 ug/L, respectively.

11. On August 20, 1991, the Regional Board received a report dated August 12, 1991 and entitled "Site Characterization Report" which was prepared by Alton Geoscience, Inc. for Mobil Oil Corporation. This report provides analytical results for soil and groundwater samples collected from borings and groundwater monitoring wells that were installed in July 1991 near aboveground tanks, a loading rack, and vapor return lines at the Mission Valley Terminal. The analytical results indicate as much as 160 mg/Kg total petroleum hydrocarbons was present in soils at a depth of 8.5 feet, and benzene was present in groundwater at a concentration of 260 ug/L. The highest concentration reported for toluene was 65 ug/L, ethylbenzene was 150 ug/L, and xylenes were 1200 ug/L.
12. The groundwater monitoring wells which were sampled in the reports above are located throughout the Mission Valley Terminal and the elevated petroleum hydrocarbon constituent concentrations in the groundwater indicate that the pollutants are pervasive throughout the site.
13. The petroleum hydrocarbons which were detected in the groundwater underlying the Mission Valley Terminal include benzene, toluene, ethylbenzene, and xylenes. Gasoline often contains 0.12-3.50 percent by weight of benzene, 2.73-21.8 percent by weight of toluene, 0.36-2.86 percent by weight of ethylbenzene, and 3.22-8.31 percent by weight of xylenes.
14. Buck Petroleum Company has a petroleum thruput agreement with Powerine Oil Company which owns 3 aboveground tanks at the Mission Valley Terminal. Under the terms of the agreement between Powerine Oil Company and Buck Petroleum Company, Powerine Oil Company has the responsibility to maintain the aboveground tanks. Based on the terms of the agreement and documentation that no surface releases from facility operations have occurred due to Buck Petroleum Company's activities, Buck Petroleum Company is not named as a discharger to this Cleanup and Abatement Order No. 92-01.
15. Based on the findings above, the Regional Board finds and concludes:
 - a. Santa Fe Pacific Pipeline, Shell Oil Company, Mobil Oil Corporation, and Powerine Oil Company operate and maintain aboveground petroleum storage tanks at the

Mission Valley Terminal.

- b. Groundwater quality data indicates a release to the subsurface environment has occurred and has caused a pollution of the waters of the State in violation of State Board and Regional Board requirements and policies.
 - c. Santa Fe Pacific Pipeline, Shell Oil Company, Mobil Oil Corporation, and Powerine Oil Company are named to this Cleanup and Abatement Order No. 92-01 and are hereinafter referred to as the dischargers pursuant to California Water Code Section 13304.
16. The "Comprehensive Water Quality Control Plan Report, San Diego Basin (9)" (hereinafter Basin Plan) was adopted by this Regional Board on March 17, 1975 and approved by the State Water Resources Control Board (State Board) on March 20, 1975. Subsequent revisions to the Basin Plan have also been adopted by the Regional Board and approved by the State Board.
17. The Mission Valley Terminal at 9950 San Diego Mission Road in San Diego is located in the Mission San Diego Hydrologic Subarea (903.11) of the Lower San Diego Hydrologic Area (903.10) of the San Diego Hydrologic Unit (903), as described in the Basin Plan.
18. The following designated beneficial uses for the surface waters in the Mission San Diego Hydrologic Subarea are established in the Basin Plan:
- a. Agricultural Supply
 - b. Industrial Service Supply
 - c. Water Contact Recreation
 - d. Non-Contact Water Recreation
 - e. Warm Freshwater Habitat
 - f. Wildlife Habitat
 - g. Preservation of Rare and Endangered Species
19. The following potential and designated beneficial uses for the groundwater in the Mission San Diego Hydrologic Subarea are established in the Basin Plan:
- a. Municipal and Domestic Supply
 - b. Agricultural Supply
 - c. Industrial Service Supply
 - d. Groundwater Recharge
20. The concentrations of benzene present in the groundwater exceed the Maximum Contaminant Level (MCL) of 1 ug/L for

drinking water as established by the U.S. Environmental Protection Agency and the California Department of Health Services. Municipal and domestic supply are designated beneficial uses of the groundwater in the Mission San Diego Hydrologic Subarea.

21. The quality of the waters of the Mission San Diego Hydrologic Subarea is subject to the provisions of the State Water Resources Control Board's Resolution 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California". Under the terms and conditions of Resolution 68-16, the quality of the waters of the Mission San Diego Hydrologic Subarea must be maintained unless it is demonstrated that a decrease in water quality:
 - (1) will be consistent with maximum benefit to the people of the State,
 - (2) will not unreasonably affect beneficial uses, and
 - (3) will not result in water quality less than prescribed in the Basin Plan or other adopted policies.
22. The enforcement action is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) in accordance with Section 15321, Chapter 3, Title 14, California Administrative Code.

IT IS HEREBY ORDERED THAT, pursuant to Section 13304 of the California Water Code, the dischargers shall comply with the following Directives:

1. No later than July 1, 1992 the dischargers shall provide to the Regional Board Executive Officer a technical report with the results of a complete and comprehensive site assessment for the Mission Valley Terminal. The report must address any contamination that has migrated off-site and must include the following information:
 - a. A site map showing the location of all former and present aboveground and underground storage tank systems, site structures, all borings and monitoring wells, and all adjacent land uses.
 - b. A discussion of the products currently stored in the storage tank systems and all other products that were historically stored regardless of volume.

- c. Boring logs and monitoring well construction details for all borings and monitoring wells that are installed on-site or off-site. All boring and monitoring well logs must bear the stamp of or be signed by the registered geologist responsible for the logs.
- d. A description of the local geology, the site geology, and site soil types, including a discussion of known or probable contaminant migration routes such as underground utility trenches.
- e. The depth to first groundwater, groundwater gradient and flow direction, and free product thickness, where it is detected, in any of the wells.
- f. A description of the soil and groundwater sampling protocol employed, including:
 - i. equipment used
 - ii. decontamination between borings and sampling
 - iii. well purging and well development procedures
 - iv. sample collection and preservation methods
 - v. sample management, including copies of the chain of custody forms
 - vi. quality assurance/quality control, including laboratory certification for the analytical methods specified and a copy of the laboratory analytical results
- g. Sufficient analytical data from soil and groundwater samples to identify the contaminants and their concentrations and extent in the subsurface in both the vertical and horizontal directions. This includes the extent of the petroleum hydrocarbon contamination in both the soil and groundwater, both on-site and off-site. Analyses of soil and groundwater samples must address both constituents that have been historically stored and that are currently stored on-site, such as leaded gasoline, additives, diesel, etc. Samples must be submitted to a laboratory certified by the State of California for the analyses requested.
- h. A summary table of the analytical data from the soil and groundwater samples collected. The analytical methods must be identified for each sample, and each sample's depth and location must be noted with the analytical results.

- i. Site maps showing the horizontal and vertical extent of soil and groundwater contamination. These maps must include cross sections of the site which show the known or probable contaminant source(s), subsurface lithology, groundwater table, and sample results.
 - j. A description of groundwater supply wells and surface waters within 1/2 mile of the site.
 2. In the interim period prior to complete implementation of remedial actions, the dischargers shall immediately immobilize and recover all free product from the affected groundwater zone, and immobilize the dissolved product in the soil and groundwater to prevent off-site migration of either free or dissolved product. Per Directive No. 6 of this Order, quarterly progress reports to the Regional Board Executive Officer must document these activities.
 3. **No later than September 1, 1992** the dischargers shall submit to the Regional Board Executive Officer a corrective action plan for the cleanup of the affected subsurface soils and groundwater underlying the Mission Valley Terminal. The corrective action plan must address contamination which may extend off-site, and must include a time schedule for implementation. The proposed treatment system should employ best available technology to achieve one of the following cleanup levels for the petroleum hydrocarbon contamination in the subsurface soils and groundwater.
 - a. Treatment and/or removal of the contaminated soil and groundwater to naturally occurring background concentrations for the constituents associated with the substances that were released to the subsurface, such as gasoline and diesel.
 - b. Treatment and/or removal of soil and groundwater to achieve petroleum hydrocarbon concentrations less stringent than those specified in (a), however, the dischargers must demonstrate to the Regional Board's and the San Diego County Health Department's satisfaction that the alternative site-specific concentrations proposed by the dischargers to remain in the affected subsurface following treatment would:
 - i. Be consistent with State Board Resolution 68-16 noted in Finding No. 21 of this Order,

- ii. Not exceed applicable water quality standards, such as Maximum Contaminant Levels (MCLs) for drinking water as established by the U.S. Environmental Protection Agency and the California State Department of Health Services, in order to protect the beneficial uses listed in Finding Nos. 18 and 19 of this Order,
 - iii. Pose minimal threat to public health and safety and the environment.
4. No later than November 1, 1992 or within 30 days of approval by the Executive Officer, whichever comes first, the corrective action plan and its time schedule, required by Directive No. 3 above, must be implemented by the dischargers.
5. In addition to the site assessment report and the corrective action plan required by Directive Nos. 1 and 3, respectively, the dischargers shall submit quarterly progress reports to the Regional Board Executive Officer until the site has been adequately mitigated and this Order is rescinded.
6. The quarterly reports shall contain the following information:
- a. A site map showing the location of all borings and monitoring wells, the hydrologic contours and groundwater gradient, and the boundaries of the free and dissolved product plumes.
 - b. The groundwater levels and free product thickness, if any, in all of the wells.
 - c. The laboratory results of analyses of groundwater samples collected from all monitoring wells, including all quality assurance/quality control documentation.
 - d. The quantity of free product recovered from the ground water for the quarter in gallons, the total to date, and its ultimate disposal point.
 - e. The quantity of groundwater extracted for the quarter, the total to date, and its ultimate disposal point.
 - f. A description of the remedial actions employed by the dischargers and the status of assessment and remediation of the site.

The quarterly progress reports shall be submitted to the Regional Board Executive Officer in accordance with the following schedule:

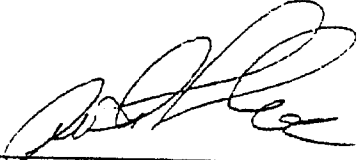
<u>Reporting Period</u>	<u>Date Due</u>
January, February, March	April 30
April, May, June	July 30
July, August, September	October 30
October, November, December	January 30

7. Disposal of any contaminated groundwater and/or soil associated with the site must be conducted in accordance with all applicable local, state, and federal regulations.
8. The dischargers shall obtain all necessary permits for assessment and remedial activities associated with the cleanup at the site.
9. A copy of all reports required in the Directives above must also be submitted to the Hazardous Materials Management Division of the San Diego County Department of Health as well as to this Regional Board office.
10. All work and reports which require geologic or engineering evaluations and/or judgements must be performed and prepared under the direction of an appropriately registered or certified professional pursuant to Sections 6735 and 7835 of the Business and Professional Code.
11. No later than January 1, 1996, the dischargers must demonstrate to the Regional Board Executive Officer's satisfaction that the final cleanup levels, determined pursuant to Directive No. 3, have been achieved throughout the soil and groundwater contamination zones. The dischargers shall continue to monitor the groundwater and submit quarterly monitoring reports in accordance with Directive No. 6 of this Order for a period of two years. If at any time during this post-cleanup monitoring the data indicate that the final cleanup levels have not been maintained, the dischargers shall immediately resume appropriate remedial cleanup actions.

NOTIFICATIONS

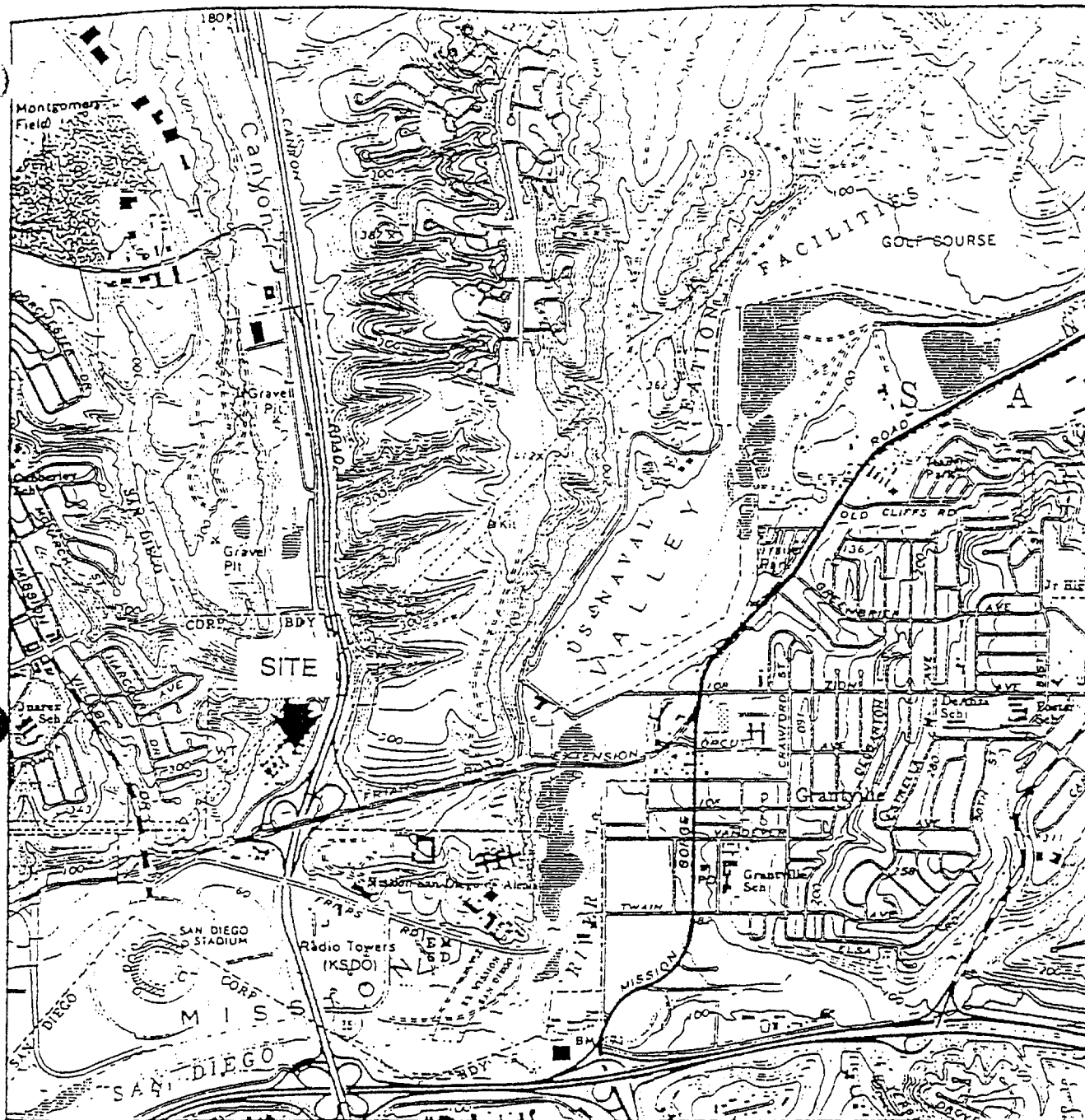
1. Pursuant to authority under Section 25270.9 of the California Health and Safety Code and Section 13304 of the California Water Code, reasonable expenses incurred by Regional Board staff for cleanup and abatement oversight work, required by this Order, is subject to cost recovery.
2. Under Section 13350 of the California Water Code, any party who intentionally or negligently violates any Cleanup and Abatement Order issued by a Regional Board is subject to administrative civil liability imposed by a Regional Board in an amount which shall not exceed five thousand dollars (\$5000) for each day the Cleanup and Abatement Order is violated.

Ordered by: _____


Arthur L. Coe
Executive Officer
Regional Water Quality Control Board
San Diego Region

Date: January 3, 1992

Revised by Errata Sheet: April 6, 1992



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SOURCE:

United States Geological Survey
7.5 minute Topographic Map:
La Mesa Quadrangle
Photorevised 1975

MISSION VALLEY TERMINAL

9950 San Diego Mission Road
San Diego, California

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ADDENDUM NO. 1 TO
CLEANUP AND ABATEMENT ORDER NO. 92-01

SANTA FE PACIFIC PIPELINE PARTNERS, L.P.
SHELL OIL COMPANY
MOBIL OIL CORPORATION
POWERINE OIL COMPANY

MISSION VALLEY TERMINAL
9950 SAN DIEGO MISSION ROAD
SAN DIEGO, CALIFORNIA
SAN DIEGO COUNTY

The California Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that:

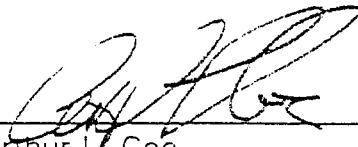
1. On January 3, 1992, the Regional Board Executive Officer issued Cleanup and Abatement Order No. 92-01 to Santa Fe Pacific Pipeline Partners, L.P., Shell Oil Company, Mobil Oil Corporation, and Powerine Oil Company in response to contamination in the soil and groundwater underlying the Mission Valley Terminal bulk storage facility located at 9950 San Diego Mission Road in San Diego.
2. By letter dated April 29, 1994, Powerine Oil Company has requested a five year extension of the due date for achieving final cleanup levels, required in Directive No. 11 of Cleanup and Abatement Order No. 92-01. Groundwater modeling information was provided indicating that significant groundwater contamination will still exist after 10 years of treatment with the proposed corrective action plan.

IT IS HEREBY ORDERED that:

1. Directive No. 11 of Cleanup and Abatement Order No. 92-01 is modified to extend the final cleanup due date by three years, and will read as follows:

"No later than January 1, 1999, the dischargers must demonstrate to the Regional Board Executive Officer's satisfaction that the final cleanup levels, . . ."

Ordered by:



Arthur L. Coe
Executive Officer

Dated: May 9, 1994

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ADDENDUM NO. 2 TO
CLEANUP AND ABATEMENT ORDER NO. 92-01

EQUIVA SERVICES LLC, KINDER-MORGAN ENERGY PARTNERS, L.P. o/p
SPPP, L.P., MOBIL OIL CORPORATION, POWERINE OIL COMPANY,
SANTA FE PACIFIC PIPELINE PARTNERS, SHELL OIL CORPORATION

MISSION VALLEY TERMINAL
9950 & 9966 SAN DIEGO MISSION ROAD
SAN DIEGO COUNTY

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that:

1. On January 3, 1992, the Regional Board issued Cleanup and Abatement Order No. 92-01 to Santa Fe Pacific Pipeline Partners, L.P., Shell Oil Company, Mobil Oil Corporation, and Powerine Oil Company in response to the unauthorized discharge of petroleum hydrocarbon to soil and groundwater underlying the Mission Valley Terminal bulk storage facility located at 9950 San Diego Mission Road in San Diego. The Order included a final cleanup date of January 1, 1996.
2. On May 9, 1994, Addendum No. 1 to Cleanup and Abatement Order No. 92-01 was issued extending the final cleanup date to January 1, 1999.
3. By letter dated April 16, 1998, Santa Fe Pacific Partners, L.P. notified the Regional Board of relinquishment of nearly all interests of Santa Fe Pacific Pipelines, Inc. and Santa Fe Pacific Pipeline Partners, L.P. in SPPP, L.P. to Kinder Morgan Energy Partners, L.P. and its affiliates (hereinafter referred to as Kinder Morgan).
4. Texaco Oil Company-San Diego Mission Valley Terminal operates an aboveground petroleum storage tank facility on property located at 9966 San Diego Mission Road. Texaco and Shell Oil Corp. facilities at the Mission Valley Terminal recently merged and were renamed Equiva Services LLC.
5. On August 5, 1999, representatives of Equiva confirmed the presence of phase separated petroleum hydrocarbon (free product) and high concentrations of dissolved petroleum hydrocarbon in groundwater underlying the Texaco facility. Methyl tert-butyl ether (MTBE) and other gasoline-type oxygenate additives including: tertiary amyl methyl ether (TAME), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) were also detected in ground water. The presence of these petroleum hydrocarbons in soil and groundwater constitute a discharge as defined in California Code of Regulations Title 22, Division 4.5, Chapter 11, Section 66260.10.

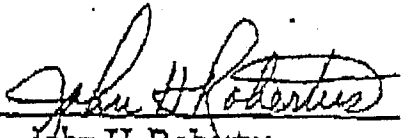
August 27, 1999

6. The subsurface discharge from the Texaco facility is either co-mingled with or closely associated with the groundwater contamination from the other Mission Valley Terminal facilities. Therefore, incorporating the Texaco site into a unified investigation and cleanup as required by this Order is justified.
7. This action is an Order to enforce the laws and regulations administered by the Regional Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code Section (CWC) §13304, the Responsible Parties, or their agents, successors, or assigns, shall take remedial action to cleanup and abate the effects of the discharge, as described in the above findings:

1. The following responsible parties for the Mission Valley Terminal shall be added as Dischargers to this Order:
 - a. Kinder Morgan Energy Partners, L.P. o/p SFPP, L.P., as owner of petroleum pipelines and above ground tanks at the Mission Valley Terminal.
 - b. Equiva Services LLC as owner of the Texaco Oil Facility above ground tanks at the Mission Valley Terminal.
 - c. Equiva Services LLC as owner of the Shell Oil Facility above ground tanks at the Mission Valley Terminal.
2. All previous owner/operators named in Cleanup and Abatement Order No. 92-01 shall remain as responsible parties.

Ordered by:



John H. Robertus
Executive Officer

Dated: August 27, 1999

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ADDENDUM NO. 3 TO
CLEANUP AND ABATEMENT ORDER NO. 92-01

KINDER-MORGAN ENERGY PARTNERS, L.P. o/p SFPP, L.P.,
MOBIL OIL CORPORATION, POWERINE OIL COMPANY,
SANTA FE PACIFIC PIPELINE PARTNERS, LP, SHELL OIL COMPANY,
TEXACO REFINING AND MARKETING INC., EQUILON ENTERPRISES LLC,
EXXONMOBIL OIL CORPORATION

MISSION VALLEY TERMINAL
9950 & 9966 SAN DIEGO MISSION ROAD
SAN DIEGO COUNTY

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that:

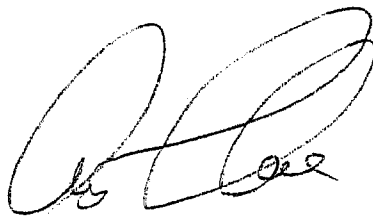
1. The following parties are currently named dischargers on Cleanup and Abatement Order (CAO) No. 92-01 for the Mission Valley Terminal facility: Kinder Morgan Energy Partners, L.P. o/p SFPP, LP; Equiva Services LLC; Mobil Oil Corporation; Shell Oil Company; Powerine Oil Company; and Santa Fe Pacific Pipeline Partners, LP.
2. On November 30, 1999, Exxon and Mobil Oil Corporation merged to form ExxonMobil Oil Corporation (ExxonMobil). ExxonMobil currently owns the aboveground storage tanks formerly owned by Mobil at the Mission Valley Terminal. Kinder Morgan Energy Partners, LP o/p SFPP, LP, currently operates the tanks owned by ExxonMobil Corporation.
3. Texaco Refining and Marketing Inc. formerly owned and operated aboveground storage tanks at the Mission Valley Terminal.
4. Equilon Enterprises LLC is a joint venture formed by Shell Oil Company and Texaco Refining and Marketing Inc. Equilon-Enterprises LLC owns and operates the aboveground storage tank facilities at the Mission Valley Terminal formerly owned by Texaco Refining and Marketing Inc. and Shell Oil Company.
5. Equiva Services LLC is a shared-services company jointly owned by Equilon Enterprises LLC and Motiva Enterprises LLC. Equiva Services LLC is not the result of a merger between Texaco and Shell Oil Corporation as stated in finding 4 of CAO 92-01 Addendum No. 2. Equiva Services LLC does not own or operate any aboveground tanks at the Mission Valley Terminal. Thus, Equiva Services LLC was mistakenly named a discharger in CAO 92-01 Addendum 2.

6. This action is an Order to enforce the laws and regulations administered by the Regional Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to section 15321 of the Resources Agency Guidelines.

IT IS HEREBY ORDERED, pursuant to section 13304 of the California Water Code:

1. The Dischargers, or their agents, successors, or assigns, shall take remedial action to cleanup and abate the effects of discharges of petroleum hydrocarbon waste from the Mission Valley Terminal.
2. Texaco Refining and Marketing Inc., Equilon Enterprises LLC, and ExxonMobil Oil Corporation are added as dischargers to Cleanup and Abatement Order No. 92-01.
3. All previously named dischargers remain except for Equiva Services LLC, and Mobil Oil Corporation.
4. The dischargers shall notify the Regional Board in writing of any change in site occupancy or change in owner or operator of the aboveground storage tanks at the Mission Valley Terminal within 30 days of the change. The notification shall include the date of the change and the name of the new owner/operator.

Ordered by: _____


John H. Robertus
Executive Officer

Dated: February 19, 2002

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ADDENDUM NO. 4 TO
CLEANUP AND ABATEMENT ORDER NO. 92-01

KINDER-MORGAN ENERGY PARTNERS, LP o/p SFPP, LP, POWERINE OIL COMPANY,
SANTA FE PACIFIC PIPELINE PARTNERS, LP, SHELL OIL COMPANY, TEXACO
REFINING AND MARKETING INC., EQUILON ENTERPRISES LLC,
EXXONMOBIL OIL CORPORATION

MISSION VALLEY TERMINAL
9950 & 9966 SAN DIEGO MISSION ROAD
SAN DIEGO COUNTY


The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that:

1. The dischargers failed to achieve final cleanup by the date of January 1, 1999, specified in Cleanup and Abatement Order No. 92-01 Addendum No. 1.
2. The January 1, 1999 final cleanup date was technically unachievable. Groundwater modeling information provided in 1994 indicated that significant groundwater contamination would still exist after 10 years of cleanup under the corrective action plan in effect at the time.
3. Technically feasible cleanup dates will be proposed in the Summary Report required by Section D of Time Schedule Order No. R9-2002-0042 that is due to the Regional Board February 1, 2004. At that time new cleanup dates will be determined.
4. This action is an Order to enforce the laws and regulations administered by the Regional Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to section 15321 of the Resources Agency Guidelines.

IT IS HEREBY ORDERED, pursuant to section 13304 of the California Water Code:

1. Directive No. 11 is deleted from Cleanup and Abatement Order 92-01; and
2. Addendum No. 1 to Cleanup and Abatement Order No. 92-01 is rescinded.

Ordered by:


John H. Robertus
Executive Officer

Dated: March 20, 2002

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ADDENDUM NO. 5 TO
CLEANUP AND ABATEMENT ORDER NO. 92-01

KINDER-MORGAN ENERGY PARTNERS, LP o/p SFPP, LP, POWERINE OIL COMPANY,
SANTA FE PACIFIC PIPELINE PARTNERS, LP, AND EXXONMOBIL OIL
CORPORATION

MISSION VALLEY TERMINAL
9950 & 9966 SAN DIEGO MISSION ROAD
SAN DIEGO COUNTY

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board) finds that:

1. Except as contradicted or superseded by the Findings set forth in this Addendum, all of the previous findings in Cleanup and Abatement Order No. 92-01 and Addenda thereto (CAO) are incorporated into this Addendum.
2. Shell Oil Company, Equilon Enterprises LLC, and Texaco Refining and Marketing Inc., (Collectively know as "Shell") did not cause or permit petroleum hydrocarbon waste to be discharged, or deposited where it probably would be discharged, to the plume of contaminated ground water from the Mission Valley Terminal that is the subject of the CAO (MVT plume). Shell did cause or permit petroleum hydrocarbon waste from an adjacent facility to be deposited in soil and discharged to ground water beneath that facility, creating a separate and distinct plume of contaminated ground water that did not contribute to the MVT plume.
3. Kinder-Morgan Energy Partners, LP O/P SFPP, LP, Powerine Oil Company, Santa Fe Pacific Pipeline Partners, LP, and ExxonMobil Oil Corporation (hereinafter the Dischargers) have completed the investigation of waste constituents in soil and groundwater as required by Time Schedule Order No. R9-2002-0042 (TSO). The Dischargers have proposed cleanup milestone dates for the off-property pollution in their *Final Summary Report* dated January 30, 2004.
4. Pollution from discharges of petroleum hydrocarbon fuel waste from the Mission Valley Terminal (MVT) extends approximately 4900 feet beyond MVT to the southwest across the parking lot at Qualcomm Stadium (hereinafter referred to as off-property pollution). The Qualcomm Stadium complex and associated parking areas are owned by the City of San Diego.
5. The milestone cleanup dates submitted by the Dischargers in the 2004 *Final Summary Report*, off-property cleanup between 2015 and 2034, are not aggressive enough to restore the water quality needed to protect existing and anticipated future beneficial uses of the groundwater in a timely manner. The off-property pollution can be cleaned up by the year 2013, if more aggressive cleanup methods are used.

6. The groundwater pollution from discharges at the MVT must be investigated, monitored, contained, and cleaned up. A Quarterly Monitoring Program, a revised Corrective Action Plan (CAP), and further soil and groundwater investigations are needed to document the Dischargers' progress toward containment and to adequately assess the effectiveness of cleanup of the pollution. In addition to the investigation and monitoring requirements, more stringent spill reporting requirements are needed for MVT because releases from the tanks and associated petroleum fuel and waste conveyance systems are released directly to the soil and therefore, any release from these systems will be, or probably will be, discharged to the waters of the State.
7. The City of San Diego (City) plans to develop the groundwater resources located downgradient of the MVT plume for use as a municipal drinking water supply by the year 2010, three years before even the most aggressive cleanup and abatement could be expected to reduce the concentration of waste constituents in the affected water body to levels consistent with water quality objectives for municipal supply. When the City builds and operates its proposed groundwater development project, water produced from the supply wells located downgradient of the MVT plume may need to be treated to remove residual constituents, from discharges of petroleum hydrocarbon fuel waste at MVT, before the water can be used for drinking and municipal supply.
8. In the November 1, 2004, "Summary of Understanding" between Kinder Morgan and the City, Kinder Morgan agreed to develop a plan to revise the MVT Site Conceptual Model (SCM), investigate and test more aggressive cleanup technologies, and investigate the utilities under public rights-of-way which may have been impacted by the pollution from MVT.
9. This action is an Order to enforce the laws and regulations administered by the Regional Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to section 15321 of the Resources Agency Guidelines.

IT IS HEREBY ORDERED, pursuant to sections 13267 and 13304 of the California Water Code the Dischargers shall cleanup and abate the effects of the discharge by complying with the following directives:

1. Texaco Refining and Marketing Inc., Equilon Enterprises LLC, and Shell Oil Company are hereby removed from the list of Dischargers identified in Cleanup and Abatement Order No. 92-01 and addenda thereto.
2. The Dischargers shall, as soon as practicable and no later than **December 31, 2010**, remove residual light non-aqueous phase petroleum liquid (LNAPL) from subsurface soil and ground water beyond MVT to the extent technically practicable.

3. The Dischargers shall, as soon as practicable and no later than **December 31, 2013**, reduce concentrations of dissolved phase petroleum hydrocarbon waste constituents¹ in the off-property pollution area to attain background water quality conditions². If cleanup to background water quality conditions is technologically or economically infeasible, the Dischargers shall propose alternative groundwater cleanup levels greater than background and provide the Regional Board with technical documentation supporting the alternative cleanup levels, including documentation that will allow the Regional Board to evaluate the proposed alternative cleanup levels in accordance with all the requisite considerations set forth in Title 23, Chapter 15, Article 5, Section 2550.4³. Alternative cleanup levels shall be sufficiently stringent to ensure that all ground water in the affected water body will meet applicable water quality objectives needed to protect present and anticipated beneficial uses of waters, including both primary and secondary Maximum Contaminant Levels, and not result in water quality less than that prescribed in the Water Quality Control Plan, San Diego Region ("Basin Plan").
4. The Dischargers shall, as soon as practicable and no later than **July 29, 2005**, implement measures to prevent petroleum hydrocarbon waste constituents in soil and ground water at the MVT property from migrating beyond the property limits of MVT.
5. The Dischargers shall, as soon as practicable and no later than **September 9, 2005**, provide the Regional Board with a technical report containing the following minimum elements:
 - a.) A synthesis of results from all previous investigations of the on-property discharge(s) of petroleum hydrocarbon waste constituents from MVT bulk fuel conveyance and storage operations. This information shall also be used as a basis to develop and update a Site Conceptual Model (SCM) for pollution located within the MVT property boundaries.
 - b.) A feasibility study (FS) to evaluate alternatives, including the cost and effectiveness of each alternative, to cleanup and abate on-property liquid, vapor and dissolve phase petroleum hydrocarbon waste constituents in soil and

1

Petroleum hydrocarbon waste constituents include, but are not limited to, benzene, toluene, xylene, oxygenate additives (e.g., MTBE), total petroleum hydrocarbons (TPH), and degradation products thereof (e.g. TBA).

2

"Background" means the concentrations or measures of constituents or indicator parameters in water or soil that have not been affected by waste constituents/pollutants from the Site.

3

23 CCR 2550.4 (c) provides that the Regional Board may establish a cleanup level for a constituent of concern that is greater than the background value of that constituent only if the Regional Board finds that it is technologically or economically infeasible to achieve the background value for that constituent and that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the cleanup level greater than background is not exceeded. In making this finding, the Regional Board will consider the factors specified in section 2550.4(d), results in site investigation reports, the updated Corrective Action Plan, a feasibility study required by this Order, monitoring data submitted by the Discharger(s) to support the proposed cleanup level greater than background, public testimony on the proposal, and any additional data or information.

groundwater attain background water quality conditions⁴. If cleanup to background water quality conditions is technologically or economically infeasible, the Dischargers shall propose alternative groundwater cleanup levels greater than background and provide the Regional Board with their technical evaluation, including all the requisite considerations set forth in Title 23, Chapter 15, Article 5, Section 2550.4. Alternative cleanup levels shall be sufficiently stringent to ensure that all groundwater in the affected water body will meet applicable water quality objectives needed to protect present and anticipated beneficial uses of waters, including both primary and secondary Maximum Contaminant Levels, and not result in water quality less than that prescribed in the Water Quality Control Plan, San Diego Region ("Basin Plan").

- c.) The feasibility study must clearly identify the Dischargers' preferred cleanup and abatement method(s), and any potential adverse impacts to the groundwater quality resulting from implementation of the preferred method(s).
- d.) A proposed schedule for timely cleanup of residual petroleum waste constituents in soil and groundwater at the MVT property.
- e.) A monitoring and reporting program capable of assessing the effectiveness and progress of the Dischargers' cleanup and abatement at MVT.

The Dischargers shall begin implementation of the preferred cleanup method described in Directive 5(c) as soon as practicable and no later than **November 9, 2005**, following submission of the Feasibility Study (FS), unless otherwise directed in writing by the Regional Board.

- 6. The Dischargers shall submit a workplan, as soon as practicable and no later than **July 13, 2005**, describing the findings of an investigation of the need for additional soil vapor extraction wells located in the off-property source zone, especially in the areas along San Diego Mission Road, the area west of RW-31, RW-32, and RW-33, and the area west of RW-3. This workplan must also include plans to evaluate the spatial density of the soil gas monitoring points and ensure adequate coverage has been achieved. Any additional vapor extraction wells proposed should be designed to maximize flow and be directed at deeper portion of the target zone within the soils exposed by dewatering.
- 7. The Dischargers shall, as soon as practicable and no later than **July 29, 2005**, submit a complete soil investigation report defining the horizontal and vertical extent of petroleum pollutants in the subsurface soils beyond MVT and provide a complete technical report to the Regional Board. Soil sampling shall include analysis of total petroleum hydrocarbons (TPH), reporting the TPH composition by carbon number ranges (e.g., % of TPH in <C4, C4-C6, etc. ranges) and results from leachability testing (using Synthetic Precipitation and Leaching Procedure – SPLP, EPA Method 1312) of soil core samples to establish

4

"Background" means the concentrations or measures of constituents or indicator parameters in water or soil that have not been affected by waste constituents/pollutants from the Site.

soil cleanup levels that ensure improvements to groundwater pollution through time. The results of this assessment should be combined with existing data from soil cores and cone penetrometer and laser-induced fluorescence testing to verify the necessary drawdown of groundwater elevation needed to expose residual LNAPL in the soil.

8. The Dischargers shall, as soon as practicable and no later than **September 9, 2005**, revise and update the existing MVT Site Conceptual Model (SCM) and Corrective Action Plan (CAP) (dated October 29, 1999) and submit it to the Regional Board. The revised and updated CAP shall address the cleanup and abatement of off-property pollution and provide a comprehensive synthesis of results from investigations of current site conditions, selected cleanup methods, performance metrics, cleanup milestones, and all contingency plans required in this CAO.
9. The Dischargers shall, **within 60 days** of notification by the Regional Board that a public or private water supply well has been installed downgradient of the Discharger's off-property pollution, prepare and submit to the Regional Board, a Drinking Water Replacement Contingency Plan (Contingency Plan) for the water supply wells. This Contingency Plan must include the following minimum elements:
 - a.) A plan for installation of a groundwater monitoring well network to detect pollution that could impact the water supply wells.
 - b.) A description of active interim remediation methods that will be implemented in the event the monitoring network provide evidence that the off-property pollution could disrupt production of potable water supplies from the wells.
 - c.) A plan to provide uninterrupted replacement water service, which may include wellhead treatment, for the public water purveyor or private well owner.
10. The Dischargers shall implement the Monitoring and Reporting Program, specified in Attachment 1, commencing with the quarterly report due on **July 30, 2005**.
11. The Dischargers shall report to the Regional Board, all releases of petroleum hydrocarbon waste (regardless of volume discharged) from the continuing migration of waste constituents in soil or groundwater, and/or from facilities, equipment, or operations at the MVT.

Any information reported pursuant to this Directive shall be provided to the Regional Board orally within **24 hours** from the time the Dischargers become aware of the circumstances. The Dischargers shall follow-up the oral report with the submission of a written report to the Regional Board **within 5 days** of the time the Dischargers become aware of the circumstances. The written report shall include exact dates, times, locations, and circumstances of the release, and if the release has not been terminated, the anticipated time it is expected to continue; the type of petroleum hydrocarbon waste(s) released; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the release.

The following shall be included as information which must be reported within 24-hours under this Directive:

- a.) Any migration of waste constituents through soil or groundwater into the area located beyond the property boundary of MVT,
- b.) Any continuing migration of waste constituents in soil or groundwater that expands the currently known horizontal or vertical extent of the off-property plume,
- c.) All unauthorized and unintentional discharges from tanks (permanent or temporary), sumps, product transfer pipelines (including incoming and outgoing intrastate pipelines carrying fuel in the MVT area), tanks and piping systems containing fuel additives, all water-draw pipelines, and all product transfer operations.
- d.) The Dischargers shall report all instances of noncompliance, for circumstances not included under Directives 11(a), 11(b), 11(c), at the time that the next **quarterly** monitoring report is submitted to the Regional Board. The reports shall contain the same information required for the 5 day written report previously described in this Directive.

The Regional Board may waive the written report on a case-by-case basis, if the oral report has been received within **24 hours**. The Dischargers shall also provide a written letter report describing any additional interim cleanup and abatement actions implemented to contain any "releases", as previously identified in this Directive, **within 30-days** of implementation of such actions.

12. Beginning **July 1, 2005**, all reports submitted by the Dischargers pursuant to section 13304 and 13267 of the California Water Code must be submitted in an electronic format. This includes all workplans, technical reports, and monitoring reports. The Discharger shall comply with electronic reporting requirements of Title 23, Division 3, Section 3893 including the provision that complete copies of all reports be submitted in PDF format, including the signed transmittal letter and professional certification. In addition to these requirements, please submit paper copies of all figures larger than 8 ½ by 11 inches with the properly signed transmittal letter to the Regional Board.

PROVISIONS

1. ***Duty to Comply*** - The Dischargers shall properly manage handle, store, treat, and/or dispose of soils and ground water that contain waste constituents in accordance with applicable federal, state, and local laws and regulations. The handling, storage, treatment, or disposal of soil, sediment, and groundwater containing waste constituents shall not create conditions of pollution, contamination or nuisance as defined in

California Water Code section 13050. The Dischargers shall, as required by the Regional Board, obtain, or apply for coverage under, waste discharge requirements or a conditional waiver of waste discharge requirements, for the removal of waste from the immediate place of release and for any discharge of the waste to (a) land for treatment, storage, or disposal or (b) waters of the state.

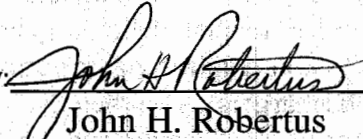
2. ***Duty to Operate and Maintain:*** The Dischargers shall, at all times, properly operate and maintain all facilities and systems of treatment, control, storage, disposal and monitoring (and related appurtenances) which are installed or used by the Dischargers to achieve compliance with this Cleanup and Abatement Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities, which are installed by the Dischargers only when the operation is necessary to achieve compliance the conditions of this Cleanup and Abatement Order.
3. ***Duty to Submit Other Information:*** When the Dischargers becomes aware that it failed to submit any relevant facts in any report required under this Cleanup and Abatement Order, or submitted incorrect information in any such report, the Dischargers shall promptly submit such facts or information to the Regional Board.

NOTIFICATIONS

1. ***Enforcement Discretion*** --The Regional Board reserves its right to take any enforcement action authorized by law for violations of the terms and conditions of this Cleanup and Abatement Order.
2. ***Enforcement Notification*** --The California Water Code commencing with Chapter 5, Enforcement and Implementation, Section 13308, provides that if there is a threatened or continuing violation of a cleanup and abatement order, the Regional Board may issue a Time Schedule Order prescribing a civil penalty in an amount not to exceed \$10,000 per day for each day compliance is not achieved in accordance with that time schedule. Section 13350 provides that any person may be assessed administrative civil liability by the Regional Board for violating a cleanup and abatement order in an amount not to exceed \$5,000 for each day the violation occurs, or on a per gallon basis, not to exceed \$10 for each gallon of waste discharged. Alternatively the court may impose civil liability in an amount not to exceed \$15,000 for each day the violation occurs, or on a per gallon basis, not to exceed \$20 for each gallon of waste discharged. Section 13385 provides that any person may be assessed administrative civil liability by the Regional Board for violating a cleanup and abatement order for an activity subject to regulation under Chapter 5.5, commencing with Section 13370, of Division 7 of the California Water Code, in an amount not to exceed the sum of both of the following: (1) \$10,000 for each day in which the violation occurs; and (2) where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed \$10 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds

1,000 gallons. Alternatively the civil liability may be imposed by the court in an amount not to exceed the sum of both of the following: (1) \$25,000 for each day in which the violation occurs; and (2) where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed \$25 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons.

Ordered by:



John H. Robertus
Executive Officer

Dated: April 13, 2005

Attachment 1: Monitoring And Reporting Program

MISSION VALLEY TERMINAL

**SUMMARY OF COMPLIANCE DATES FOR
ADDENDUM NO. 5 TO ORDER NO. 92-01**

DIRECTIVE NO.	SUMMARY OF REQUIREMENT(S)	DUE DATE
12	Electronic reporting of monitoring data, technical and monitoring reports is required.	After July 1, 2005
6	Workplan to investigate the need to install additional off-property wells.	July 13, 2005
4	Prevent any further migration of pollutants beyond the Discharger's property boundary.	July 29, 2005
7	Complete soil investigation for the off-property source zone area.	July 29, 2005
10	Quarterly Reports for Monitoring and Reporting Program begins with report on July 30, 2005 : First Quarter (Jan – Mar) Second Quarter (April – June) Third Quarter (July – Sept) Fourth Quarter (Oct – Dec)	April 30 July 30 October 30 January 30
5	Technical Report containing proposed method(s) and schedule for timely cleanup of on-property pollution, and associated monitoring plan.	September 9, 2005
8	Revise existing Corrective Action Plan in compliance with this Order.	September 9, 2005
5	Begin implementation of preferred remedial method(s) for cleanup and abatement of on-property pollution	November 9, 2005
9	Drinking Water Replacement Contingency Plan	Within 60-days of notification of installation of water supply well
10	All SVE monitoring points meet performance criteria required by Monitoring and Reporting Program	March 10, 2006
2	LNAPL removed from subsurface in off-property area to extent practicable	December 31, 2010
3	Off-property concentrations of dissolved pollutants at or below MCLs	December 31, 2013

MONITORING AND REPORTING PROGRAM

KINDER-MORGAN ENERGY PARTNERS, LP o/p SFPP, LP, POWERINE OIL
COMPANY, SANTA FE PACIFIC PIPELINE PARTNERS, LP, EXXONMOBIL OIL
CORPORATION

MISSION VALLEY TERMINAL
9950 & 9966 SAN DIEGO MISSION ROAD, SAN DIEGO,
SAN DIEGO COUNTY, CALIFORNIA

1. **AUTHORITY AND PURPOSE:** The Dischargers are directed to submit the technical reports required in this Monitoring and Reporting Program (MRP) pursuant to California Water Code sections 13267 and 13304. This MRP is intended to document compliance with Cleanup and Abatement Order No. 92-01 and addenda thereto.
2. **GROUNDWATER MONITORING:** The Dischargers shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze samples of groundwater from monitoring wells according to the following schedule:

Groundwater Monitoring Well Sampling Schedule

- a) All groundwater monitoring wells shall have samples collected and analyzed on a quarterly basis except the following wells, which will be gauged on a quarterly basis, and sampled and analyzed on an annual schedule:

Well Number	Well Number
M-2	R-48AM
M-6	R-48AD
R-4	S-4
R-6	S-5
R-7	S-9
R-8	S-10
R-45AS	S-13
R-45AM	
R-45AD	
R-48AS	

Monitoring wells that are sampled on an annual basis shall be sampled during the fourth quarter of each year.

All sample collection, storage, and analyses shall be performed according to protocols included in the U.S. Environmental Protection Agency (EPA), "SW-846: Test Methods for Evaluating Solid Wastes Physical/Chemical

Methods" (Version 5, dated April 1998). All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Regional Board. Specific methods of analysis must be identified. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board. If analytical protocols other than U.S. EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review by the Regional Board prior to use.

All samples shall be analyzed using EPA method 8015 for total petroleum hydrocarbons (TPH) quantifying gasoline and diesel fuel fractions and EPA method 8260b for volatile organic compounds including benzene, toluene, ethylbenzene, xylenes, methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA) and all other fuel oxygenates.

- b) All groundwater monitoring wells within the groundwater pollution plume shall be sampled for aerobic and anaerobic biodegradation indicators including pH, dissolved oxygen, alkalinity, methane, ferrous iron, sulfate and nitrate on a quarterly basis.
 - c) The Dischargers shall sample any new monitoring or extraction wells quarterly and analyze groundwater samples for the petroleum constituents as required above. The Dischargers may propose changes in the above groundwater monitoring requirements. All proposed changes to this monitoring and reporting program must be provided in writing and are subject to approval by the Regional Board.
- 3. REMEDIATION MONITORING:** The Dischargers shall monitor the remediation systems, soil vapor, and groundwater to track remediation effectiveness and progress toward cleanup at the site. The reports for remediation system monitoring and performance must include the following minimum information:
- a) On a bi-weekly basis, measure total hydrocarbon concentrations and respirometry gases (O_2 , CO_2) at all soil gas monitoring points. This monitoring can be performed using properly calibrated field instruments, but if field instruments are used, the total hydrocarbon analysis should utilize a Flame Ionization Detector. Of that sample set, analyze a minimum of 25% of the higher concentration samples by Gas Chromatography-Flame Ionization Detector (GC-FID). Gas Chromatography-Mass Spectrometry (GC-MS) analyses can be used in place of GC-FID whenever this monitoring program calls for GC-FID vapor or soil analysis, as long as GC-MS is used consistently for all analyses. Report the total hydrocarbon concentration and the composition in terms of carbon number ranges (e.g., % TPH in <C4, C4-C6, etc. ranges). After the first samples have been analyzed, propose a consistent

sample set of soil gas monitoring points that will be included in future analyses by GC-FID.

- b) On a quarterly basis, perform in-situ respirometry test to assess for oxygen uptake/aerobic biodegradation rates using all soil vapor wells within the residual liquid phase petroleum (LNAPL) zone.
- c) On a weekly basis, monitor total hydrocarbon concentrations, vapor flow rates and vacuum at each soil vapor extraction (SVE) well and optimize vapor flow rates for the SVE well network. A properly calibrated FID field instrument can be used to monitor the total hydrocarbon concentration, but lab analysis should also be conducted concurrently with every fourth sample.
- d) On a monthly basis, sample each SVE well and analyze by GC/FID to determine the total concentration and composition in terms of carbon number ranges (e.g., % TPH in <C4, C4-C6, etc. ranges).
- e) Demonstrate bi-weekly that each SVE soil gas monitoring point is:
 - 1) Under vacuum at **ALL** screened depths;
 - 2) Exposed to vapor flow and not water saturated;
 - 3) Sufficiently aerated by the vapor flow such that O₂ concentrations exceed 10% v/v at all depths at each location.

If these performance criteria cannot be met by **March 10, 2006**, the Dischargers shall either increase SVE well density or use an alternate technology.

- f) The Dischargers shall maintain a table summarizing remediation system operations indicating beginning and end of time periods when the system(s), or components thereof, were either shut down or not able operate at optimum levels and reasons for the occurrence.
- g) At least every two years (during the Second Quarter), collect soil samples from the source zone to assess the effectiveness of the SVE remediation. Soil analysis must include TPH and TPH fraction/composition analysis (as expressed in carbon number ranges), and results from laboratory based leachate tests (using Synthetic Precipitation and Leaching Procedure (SPLP), EPA Method 1312) to compare with initial soil samples required in Directive No. 6 of CAO 92-01 Addendum No. 5.

4. **QUARTERLY GROUNDWATER MONITORING REPORTS:** The Dischargers shall submit quarterly groundwater monitoring reports to the Regional Board **no later than 30 days** following the end of the quarter according to the following schedule:

First Quarter (January -March)	Due no later than April 30
Second Quarter (April-June)	Due no later than July 30
Third Quarter (July-September)	Due no later than October 30
Fourth Quarter (October-December)	Due no later than January 30

This schedule shall commence with the submission of a quarterly monitoring report due on **July 30, 2005**.

The quarterly monitoring reports shall include:

- a) **Transmittal Letter:** The transmittal letter shall discuss any violations and/or petroleum releases during the reporting period and actions taken or planned to correct the problem(s). The letter shall be signed by the discharger's principal executive officer or his/her duly authorized representative, and shall include the following certification statement:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

In order to assist the Regional Board in processing correspondence and reports submitted in compliance with this cleanup and abatement order, the Dischargers shall include the following code number in the heading or subject line portion of all correspondence and reports submitted to the Regional Board: TSMC:40-0054.

- b) **Groundwater Elevations:** Groundwater elevation data shall be presented in tabular form, with well number, date of observation, depth to groundwater, groundwater elevation, top of casing elevations, depths to the top of well screens, length of well screens and total depth for each well included in the monitoring program. All wells containing LNAPL shall also include the measured thickness of LNAPL on the groundwater elevation table. A separate groundwater elevation map must be prepared for each monitored water-bearing zone with the groundwater flow direction and calculated hydrologic gradients(s) clearly indicated in the figures(s). Historical groundwater elevations observed during the previous three-year period shall be tabulated in each report. All historical groundwater elevations must be in tabular format in the fourth quarter

report each year. The historical groundwater information may be submitted in electronic or paper format.

c) Reporting Groundwater Analysis Results:

1. Analytical results from groundwater samples shall be presented in tabular format and include the following minimum information: well number, sample collection date, and concentration data for each constituent of concern (COC) required in this Order. The Dischargers shall provide an isoconcentration map prepared for each COCs for each monitored water-bearing zone, as appropriate. Time versus concentration plots and distance versus concentration plots shall be prepared for constituents of concern for appropriate wells. Both isoconcentration maps and plots shall be reported in log scale (e.g. 1, 10, 100, 1000, etc.).
2. Provide a site plot plan which clearly illustrates the locations of remediation and monitoring well networks, former/current underground and aboveground storage tank systems (including product piping) and buildings located on site and in the area of the pollution.
3. Provide a site plot plan with the most recent concentrations of total petroleum hydrocarbons and volatile aromatic hydrocarbons (e.g. benzene, toluene, ethylbenzene, total xylenes, MTBE, TBA and other fuel-oxygenates).
4. The report shall provide narrative technical interpretations of the groundwater data. The text must include a description of any significant increases in pollutant concentrations since the last report, any measures proposed to address the increases, any changes to the site conceptual model, and any conclusions and recommendations for future action.
5. The report must include analytical methods used, detection limits obtained for each reported constituent, lab analysis results and QA/QC data. A narrative discussion and explanation of any problematic QA/QC data must also be included in the report.
6. The report shall describe sample collection protocol, describe how investigation derived wastes are managed at the site, and include documentation of proper off-site disposal of site derived wastes (including but not restricted to contaminated well purge water, soil cuttings, free petroleum product- LNAPL, etc.).

d) Remediation Report: The Remediation Report shall include the following information for all active remediation and any interim remedial actions initiated during the reporting period:

1. Groundwater extraction results shall be reported in a tabular format, for each extraction well and for the site as a whole,

- expressed in gallons of groundwater extracted per day and total groundwater volume extracted for the quarter.
2. Calculated pollutant removal results, from operation of the groundwater extraction wells and from other cleanup and abatement systems, shall be reported in units of chemical mass per day and total mass for the quarter. The fourth quarter report shall indicate a total mass of pollutants removed for the preceding year.
 3. Historical mass removal results shall be included in the fourth quarterly report each year. Remediation monitoring data are listed in Section 3 of this Monitoring and Reporting Program. Include a discussion and technical analysis of any data trends, system inadequacies, and system changes/upgrades. The narrative section must also indicate scheduled maintenance events for the next reporting period.
 4. Reports shall include an evaluation of effectiveness and assessment of performance. The second and fourth quarter Remediation Reports shall include a complete evaluation of the performance and effectiveness of the remediation system(s) at the site. The evaluation shall include a full report of system operations during the reporting period, and an assessment of whether the systems are adequately performing to meet all the cleanup and performance milestones required in Addendum No. 5 to Order 92-01 and this MRP. If the remediation is not progressing at a rate that will meet one of more of the required milestones; the report narrative shall clearly indicate that expectation and include recommendations for the necessary modifications/enhancements to the configuration and/or operation of the remediation systems.
- e) **Use of Registered Professionals:** The discharger shall provide documentation that plans and reports required under this Order are prepared under the direction of appropriately qualified professionals. California Business and Professions Code Sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of registered professionals. A statement of qualifications and registration numbers of the responsible lead professionals shall be included in all plans and reports submitted by the discharger. The lead professional shall sign and affix their registration stamp to the report, plan or document.
- f) **Release Report:** The report shall include a list of all releases, regardless of volume, from the tanks and/or piping systems for the quarter. This includes all tanks (permanent or temporary), all sumps, all product transfer pipelines, and all water-draw pipelines. The report shall also include a site plot plan indicating the location of each release, the date the each release was discovered, the cause of each release, an estimated volume of material/pollutants associated with each release, date the releases were

reported to the agencies as required by statute/regulation or this Order, and the mitigation methods employed to repair the problem(s). A list of all historical releases and mitigation methods shall be included in the fourth quarterly report each year.

- g) **Status Report:** The quarterly report shall describe relevant work completed during the reporting period (e.g. site investigation, interim remedial measures, results of implementation of the Corrective Action Plan) and work planned for the following quarter. The status report shall also indicate any problems in completing site related work during the previous reporting period (e.g., equipment malfunctions, site access problems, etc.).
5. **VIOLATION REPORTS:** If the Dischargers violate requirements in the Cleanup and Abatement Order, then the Dischargers shall notify the Regional Board office by telephone and facsimile as soon as practicable once the Dischargers have knowledge of the violation. Regional Board may require the Dischargers to submit a separate technical report on the violation within five working days of telephone notification.
6. **OTHER REPORTS:** The Dischargers shall notify the Regional Board verbally prior to any site activities which have the potential to contribute to, create or exacerbate a condition of pollution or nuisance (e.g., cause or contribute to additional contaminant mass or migration of pollution) or which would provide new need for site investigation.
7. **RECORD KEEPING:** The Dischargers or his/her agent shall retain data generated for the above reports, including laboratory results and QA/QC data, for a minimum of six years after origination and shall make them available to the Regional Board upon request.
8. **MONITORING AND REPORTING PROGRAM REVISIONS:** Revisions to the MRP may be ordered by the Regional Board, or requested by the Dischargers. Prior to making MRP revisions, the Regional Board will consider the burden, including costs, of the groundwater monitoring reports relative to the benefits to be obtained from these reports.
9. **REPORTING FORMAT:** The format of all monitoring and technical reports provided to the Regional Board in compliance with the MRP shall comply with the requirements of the Directives of Addendum No. 5 to Order 92-01.

California Regional Water Quality Control Board

San Diego Region

David Gibson, Executive Officer



Executive Officer's Report

February 8, 2012

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The February report for the Tentative Schedule of Significant NPDES Permits, WDRs, and Actions and the attachments noted on page 1 are included at the end of the report.

Part A – San Diego Region Staff Activities

1. Personnel Report

Staff Contact: Lori Costa

The Organizational Chart of the San Diego Water Board can be viewed at http://www.waterboards.ca.gov/sandiego/about_us/org_charts/orgchart.pdf

Recent Hires

Darren Bradford, an Environmental Scientist, began working on January 3, 2012, in the Compliance Assurance Unit. He has a Bachelor's Degree from Sonoma State University in Environmental Studies and Planning. Darren previously worked as an Environmental Scientist with the Dept. of Fish and Game and the State Water Board.

Christina Witte began working as the Executive Assistant on January 9, 2012. She comes to the San Diego Water Board with over 20 years of experience in administrative support. For more than five years she was an Executive Secretary with the Occupational Safety and Health Standards Board in Sacramento.

Vinty Siev, a Staff Information Systems Analyst, began working on January 30, 2012, in the Information Systems Management Unit. He has a Bachelor's Degree from San Diego State University in Computer Engineering. Vinty previously worked as an Associate Information Systems Analyst with the Dept. of Corrections and as a student intern for the San Diego Water Board from March 2006 to December 2008. Vinty serves as our LAN Administrator.

Promotions

Lori Costa was promoted to Associate Governmental Program Analyst in December 2011. Lori began her State career with the State Water Board in November 1984. In 1996 she left her position as Associate Personnel Analyst to move to San Diego. She was the San Diego Water Board's Executive Assistant for 14 years before promotion to Staff Services Analyst in the Business Services Unit in February 2011.

Departures

Staff Services Manager DiAnne Broussard retired from State Service on December 20, 2011 after 10 ½ years with the San Diego Water Board. In May 2001 DiAnne was hired as and Administrative Officer and promoted to Staff Services Manager in May of 2009. She was a wealth of knowledge in the Business Services Unit and will surely be missed. DiAnne will remain in San Diego but plans to do some traveling. We thank her for her dedicated service and wish her the best in her future endeavors.

Recruitment

Recruitment is ongoing for a Water Resource Control Engineer and a Staff Services Analyst. We hope to announce appointments for those positions in February or early March.

Follow this link to see the announcements:

http://www.spb.ca.gov/employment/wvpos_index.htm.

Vacant positions for the State and Regional Boards are also posted on the State Board web page at http://www.waterboards.ca.gov/about_us/employment/

Part B – Significant Regional Water Quality Issues

1. Status Report: Kinder Morgan Energy Partners – Mission Valley Terminal Cleanup Project and Associated Dewatering Discharge (*Attachment B1a-d*)

Staff Contacts: Robert Morris, Sean McClain, Ben Neill

The San Diego Water Board has been evaluating its regulatory options to restore, preserve, and maintain groundwater and surface water quality in the vicinity of Qualcomm Stadium in light of continuous objections from the City of San Diego about the Kinder Morgan Energy Partners' (Kinder-Morgan) cleanup and its associated discharge of treated groundwater. As a result of the City's objections, the San Diego Water Board is precluded from authorizing Kinder-Morgan's requested increase in the discharge flow rate of treated groundwater from the cleanup project to the adjacent Murphy Canyon Creek under Order No. 2008-002, NPDES Permit No. CAG919003, the *General Waste Discharge Requirements for Groundwater Extraction to Surface Waters within the San Diego Region* (the NPDES Permit). Kinder-Morgan is unable to provide proof, required by the NPDES Permit, of the City's authorization to accept increased discharges. Kinder-Morgan requested the flow rate increase to expedite the cleanup operation. For the reasons contained in the Administrative Record for this matter, as more fully set forth below, the San Diego Water Board Executive Officer should deny Kinder-Morgan's request for an increase in the permitted discharge flow rate.

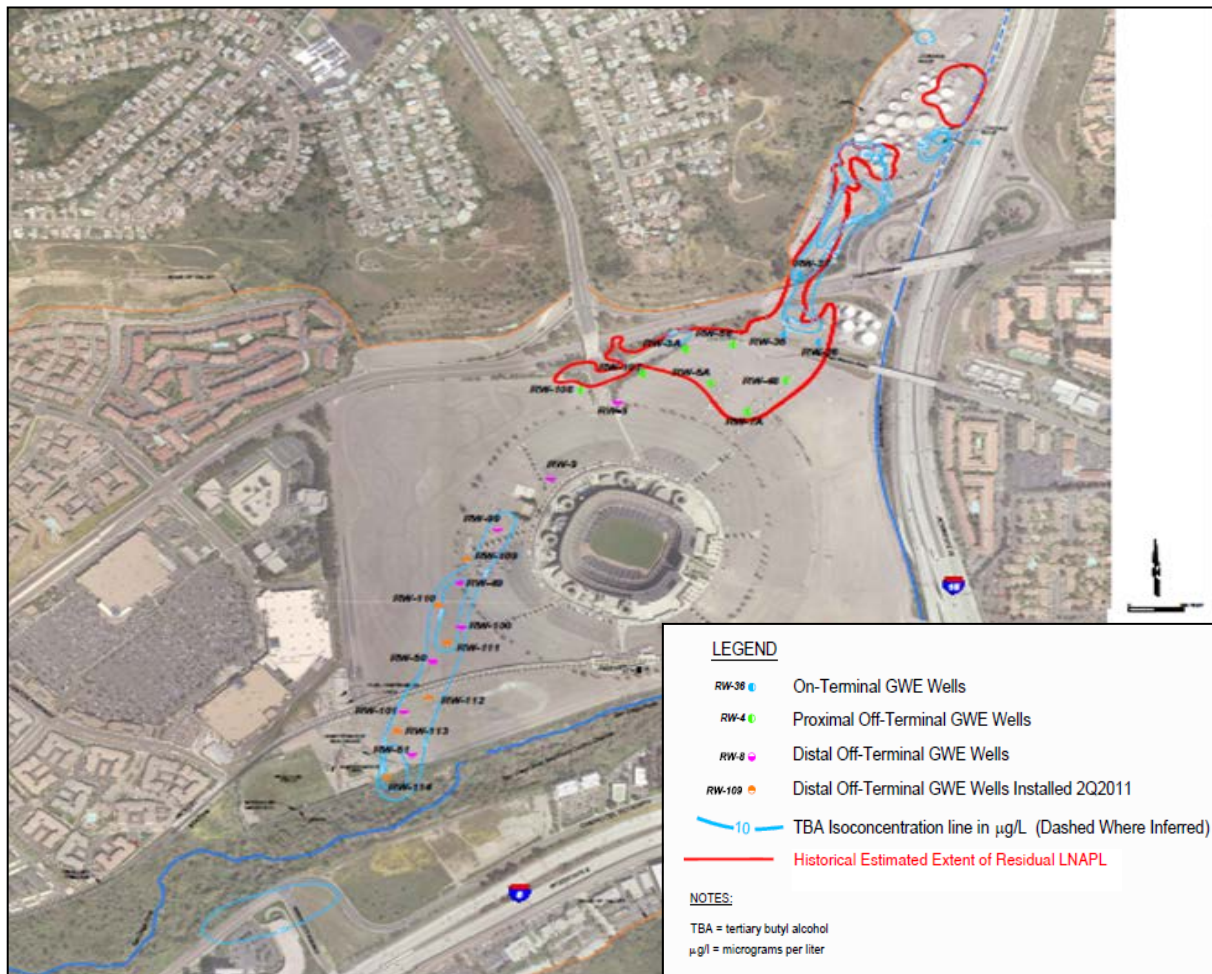
CLEANUP BACKGROUND

The Mission Valley Terminal (MVT) is a 10.5 acre aboveground storage tank (AST) facility located in Murphy Canyon in an area bounded by Interstate 15 and San Diego Mission Road in the City of San Diego (Figure 1). The MVT has been in operation since 1962. Gasoline releases from the terminal resulted in a groundwater contamination plume extending off-Terminal

approximately 2,000 feet to the south and southwest beneath Friars Road and the Qualcomm Stadium parking lot.

The San Diego Water Board issued an amended Cleanup and Abatement Order (CAO)¹ in 2005 requiring Kinder-Morgan to clean up the soil and to meet the following directives by the deadline dates:

- December 31, 2010: "...to the extent technically practicable remove residual light non-aqueous phase petroleum liquid (liquid gasoline referred to as LNAPL) from subsurface soil and groundwater beyond the MVT property."
- December 31, 2013: "...shall reduce concentrations of dissolved phase petroleum hydrocarbon waste constituents in groundwater to attain background water quality conditions beyond the MVT property."



Kinder-Morgan implemented a Corrective Action Plan to satisfy the CAO directives and meet the cleanup deadlines. The remedial strategy selected to clean up the soil and groundwater in the off-terminal area includes:

1. Soil vapor extraction (SVE) coupled with localized lowering of the groundwater table (dewatering) to effectively expose the entire LNAPL zone to the influence of SVE. There are approximately 192 SVE wells and 19 groundwater extraction wells operating in the primary off-terminal LNAPL zone to remove gasoline constituents from the soil and groundwater.
2. Placement of a hydraulic containment barrier at the property boundary to prevent petroleum hydrocarbons in groundwater from migrating of beyond the terminal property (Figure 1).
3. Implementation of a monitoring and reporting program to optimize LNAPL removal and evaluate whether the remediation system is capable of meeting the remedial goals within the required time frame.

The City of San Diego is a key stakeholder in this cleanup because it owns property at Qualcomm Stadium overlying the contaminated soil and groundwater, and because it plans to develop a water supply project in the area impacted by the gasoline spill. Should the City install a drinking water production well in the area of the MVT groundwater pollution, Addendum No. 5 to the CAO requires Kinder-Morgan to submit a Drinking Water Replacement Contingency Plan that includes a provision to provide uninterrupted replacement water service, which may include wellhead treatment, for the public water purveyor or private well owner. Kinder-Morgan reported that it has offered to provide the treated groundwater, which is currently being discharged to the creek, to the City for beneficial re-use, but reports that the City has never responded to its offers.² Kinder-Morgan further reports that a water supply well does not exist and that to their knowledge, the City has not provided a plan to develop the aquifer with water supply wells or sought a permit from the California Department of Health Services for such water supply wells.³

All San Diego Water Board documents and reports prepared by Kinder-Morgan on this matter have been provided to the City for review and comment. The San Diego Water Board staff meets with the City's representatives periodically to obtain their input and discuss their comments.

² Letter dated November 16, 2011 from Kinder-Morgan to the San Diego Water Board.

³ Ibid.

STATUS OF OFF-TERMINAL CLEANUP

Rebound Study June 2010. Kinder-Morgan performed confirmatory soil sampling and a soil vapor rebound study during April through June 2010. The goal of the evaluation was to provide confirmation of where LNAPL has been removed from the primary off-Terminal LNAPL Zone to the extent technically practicable. Based on this evaluation, Kinder-Morgan determined that large portions of the primary off-terminal LNAPL Zone had been remediated to the extent technically practicable. There are four areas, however, that the San Diego Water Board likely may find did not comply with the December 31, 2010 cleanup deadline. In addition, a new area of LNAPL-affected soil, which was discovered in July 2009 in the northwestern off-terminal LNAPL area, adjacent to the western limits of the previously known extent of the primary LNAPL zone, will not comply with the December 31, 2010 cleanup deadline.

Soil Excavation August through October 2010. Kinder-Morgan excavated four areas within the primary off-Terminal LNAPL zone to achieve further assurance of compliance with the December 31, 2010 deadline. Excavation was performed by large diameter auger pattern drilling. Six- and four-foot diameter augers were advanced to depths below the bottom of LNAPL-affected soil in an overlapping grid pattern. Each borehole was backfilled with Portland cement slurry immediately following excavation. A total of approximately 6,000 cubic yards (10,671 tons) of soil was excavated from the selected areas and transported off-site for treatment and recycling.

Northwestern off-terminal LNAPL Area, August through December 2010. Kinder-Morgan expanded the SVE system into the northwestern off-terminal LNAPL zone to include a network of 51 additional SVE wells and a second SVE system to remediate the LNAPL-affected soil. The new system started in December 2010 and Kinder-Morgan expects cleanup of soil in the northwestern off-terminal area will be complete by December 31, 2013.

Second Rebound Study February through April 2011. Kinder-Morgan performed a 61-day soil vapor rebound test by shutting down all SVE systems from February 23, 2011 through April 24, 2011. Soil vapor monitoring during rebound and subsequent restart was used to evaluate whether significant petroleum hydrocarbons remain in the soil. The results indicated that that by December 31, 2010, the LNAPL-affected soil in the primary off-Terminal zone had reached a condition where continued remedial efforts were providing small incremental benefit (i.e. LNAPL had been removed to the extent technically practicable).

Compliance with December 31, 2010 CAO cleanup deadline. Kinder-Morgan reported that the remediation had met the December 31, 2010 cleanup criteria for the primary off-terminal LNAPL zone. However, the northwestern off-terminal LNAPL area did not meet the 2010 cleanup deadline. Active remediation of the northwestern off-Terminal LNAPL zone commenced in late 2010, and LNAPL removal in this area remains ongoing. Kinder-Morgan expects the northwestern off-Terminal LNAPL zone to be complete prior to December 31, 2013.

Compliance with December 31, 2013 CAO cleanup deadline. Kinder-Morgan plans to continue operating the primary SVE system in a bioventing mode until the December 31, 2013

groundwater cleanup directive is met. The groundwater extraction system continues to operate to maintain the hydraulic barrier at the MVT property boundary and to remove concentrations of dissolved-phase petroleum hydrocarbons in off-Terminal groundwater to comply with the December 31, 2013 cleanup deadline.

CURRENT AND FUTURE ISSUES WITH CLEANUP

Gasoline Constituents in Groundwater. The cleanup currently is focusing on two gasoline constituents in groundwater, methyl tertiary butyl ether (MTBE), and tertiary butyl alcohol (TBA). During the fourth quarter 2011 monitoring event, Kinder-Morgan reported that no total petroleum hydrocarbons, benzene, toluene, ethylbenzene, or xylenes were detected in the off-Terminal groundwater monitoring wells, except at two locations. The fuel additive MTBE detected in groundwater remained at relatively low concentrations, below 5 micrograms per liter (ug/L), in portions of the off-terminal area, except for two monitoring wells that detected MTBE at 6.8 and 8.4 ug/L. Concentrations of TBA ranging from non-detect to 250 ug/L were reported (Figure 1). The frequency and magnitude of TBA detections in the off-terminal area have generally decreased over time.

Increase Groundwater Discharge Request. Kinder-Morgan used new data collected in the off-terminal area to update a groundwater flow and contaminant transport model. The groundwater model was used to evaluate well locations, proposed pumping rates, and to simulate future dissolved-phase MTBE and TBA concentration reductions over time in the downgradient off-Terminal area. Based on the modeling, Kinder-Morgan determined that a flow increase to 1.26 MGD is needed to achieve the cleanup goals established by the December 31, 2013 CAO cleanup deadline. Kinder-Morgan has constructed a second groundwater treatment plant and installed six additional groundwater extraction wells southwest of Qualcomm Stadium in anticipation that the San Diego Water Board would approve the groundwater discharge flow rate increase.

REGULATION OF THE DISCHARGE TO MURPHY CANYON CREEK - BACKGROUND

Discharges from groundwater extraction projects to surface waters within the San Diego Region except for San Diego Bay have been regulated by the San Diego Water Board since 1991 pursuant to general waste discharge requirements prescribed in the NPDES Permit. To obtain coverage under the NPDES Permit, a discharger must submit a complete Notice of Intent (NOI), including proof of authorization from the local agency with jurisdiction over the affected MS4 that demonstrates pollutant concentrations in the discharge comply with the applicable discharge specifications contained in the NPDES Permit. Upon receipt of a complete NOI, a Notice of Enrollment (NOE) is provided to the discharger by the San Diego Water Board which prescribes the allowable discharge flow limit and any additional or increased monitoring or other requirements.

In March 1994, the San Diego Water Board issued a NOE for a discharge of up to 220,000 gallons per day (gpd) from the Mission Valley Terminal remediation site to Murphy Canyon Creek. The treatment system for the discharge consisted of an oil/water separator and carbon adsorption unit. The treatment system was subsequently upgraded to address elevated levels of

manganese, and total nitrogen, which violated the NPDES Permit's Discharge Specifications. The treatment system upgrades included a manganese oxidation/filtration removal system, a biological denitrification system, an oxygen generator, a residual sulfite monitor and an auto chlorine titrator.

As required by the NPDES Permit, Kinder-Morgan submitted NOIs in 1996, 2005, 2009, and 2010 for modification of the discharge flow limit prescribed in the NOE and subsequent addenda to the NOE. The San Diego Water Board issued NOEs increasing the allowable discharge flow limit to 300,000 gpd in September 1996, to 505,000 gpd in March 2005, and to 795,000 gpd in December 2009.

The discharge is likely to continue well beyond the December 31, 2013 cleanup deadline as the operation of the groundwater extraction system will be necessary to maintain the hydraulic barrier at the MVT property boundary and to remove concentrations of dissolved-phase petroleum hydrocarbons in on-site Terminal groundwater.

TIME SCHEDULE ORDER NO. R9-2011-0052

In September 2011, the San Diego Water Board issued an enforcement time schedule order to Kinder-Morgan to ensure that the discharge from the dewatering project does not cause, have a reasonable potential to cause, or contribute to an in-stream excursion above the water quality objective for Total Dissolved Solids (TDS). This action was taken in response to a statement in a report⁴ that the treated water in the discharge to Murphy Canyon Creek is typically over 2000 milligrams per liter (mg/L). The enforcement order establishes a compliance schedule for Kinder-Morgan to assess the potential for the discharge to cause, or contribute to, an in-stream excursion above the Basin Plan water quality objective of 1500 mg/L and to assess any impact of the discharge on the downstream beneficial uses. The enforcement order further requires the development and implementation of a plan to address compliance with the Basin Plan standards and mitigation to compensate for TDS loading by the effluent discharge in excess of the Basin Plan water quality objective. Kinder-Morgan must document that the discharge does not cause, or contribute to, an in-stream excursion above the water quality objective for TDS by November 30, 2015.

CURRENT REQUEST FOR MODIFICATION TO NOE

⁴ Document in Support of August 12, 2009 RWQCB Meeting Agenda Item 11:

Information Item: Mission Valley Terminal Cleanup Status Report, submitted by LFR, Inc. on behalf of Kinder-Morgan, dated August 5, 2009.

On August 24, 2010, Kinder-Morgan requested an increase in the allowable discharge flow limit to 1.26 MGD. Kinder-Morgan reports that the proposed flow limit increase will expedite the removal of contaminated groundwater in the Qualcomm Stadium area and will ensure compliance with the groundwater cleanup deadline of December 31, 2013. The San Diego Water Board delayed taking action on the request until the enforcement time schedule order discussed above was issued. In written comments and at the hearing on the enforcement time schedule order in September 2011, the City raised several objections to not only the time schedule, but also to the proposal for increasing the discharge flow rate limit.

In an effort to address the City's concerns, the San Diego Water Board Executive Officer met with the City and unsuccessfully attempted to schedule a subsequent meeting with all parties. As a result, the Executive Officer requested and received letters outlining the respective positions of the City and Kinder-Morgan. The City and Kinder-Morgan also provided extensive legal analyses supporting their respective positions. (See Attachments 1, 2, 3 and 4).

ISSUES

Murphy Canyon Creek and the lower San Diego River, to which Murphy Canyon Creek flows, are defined as both receiving waters and a municipal separate storm sewer (MS4).⁵ The NPDES Permit makes prior approval from the appropriate local agency with jurisdiction over the MS4 (the City of San Diego in this case) a condition of eligibility for a NOE under the NPDES Permit. The NPDES Permit further requires an applicant to include documentation that the local agency has authorized the proposed discharge to its MS4 as part of the NOI.⁶ This requirement is based upon provisions contained in San Diego County's MS4 NPDES Storm Water Permit that inform the City (and other copermittees) that they accept responsibility for discharges into an MS4 that the City does not prohibit or control. Previously in March 2009, when Kinder-Morgan submitted an application and obtained a modification of the NOE to increase the flow limit to 505,000 gpd, the City did not object to the discharge, but requested that the discharge be limited to ".....only that water which cannot be re-injected into the aquifer." With respect to the issue of re-injection of treated groundwater, Kinder-Morgan contends that the risks posed by such a strategy at the site far outweigh the potential benefits that may be realized.

In light of the disclosure that the discharge contains elevated concentrations of TDS, the City contends that the San Diego Water Board's enforcement time schedule order improperly allows

⁵ Order No.2007-0001, NPDES No. CAS0108758, the San Diego County MS4 NPDES Storm Water Permit. Finding D.3.c. provides that urban streams used as conveyances for urban runoff are both an MS4 and receiving water.

⁶ Notice of Intent Form, Attachment B1 to Order No. R9-2008-002, NPDES Permit No. CAG91002

Kinder-Morgan to pollute Murphy Canyon Creek and that the TDS concentrations in the discharge must be reduced to a level not exceeding 1500 mg/L. Elevated concentrations of TDS are a widespread problem throughout the lower San Diego River watershed⁷ and the City and the other MS4 copermitees have identified TDS as a priority pollutant. No best management practices have been identified to date to specifically address TDS and best management practices designed to address a broad spectrum of pollutants have not been implemented long enough to determine their effectiveness. The studies being conducted by Kinder-Morgan under the enforcement time schedule order would provide an opportunity for the City to assess the TDS issue more fully if the City were able to resolve its differences with Kinder-Morgan.

The City has identified the following terms as prerequisites for Kinder-Morgan to obtain and maintain the City's approval to discharge at an increased flow of 1.26 MGD:

1. Kinder-Morgan must pay the City for replacement cost of extracted groundwater.
2. Kinder-Morgan must provide to the City and the San Diego Water Board a comprehensive analysis demonstrating infeasibility of alternatives to discharging extracted groundwater to surface waters.
3. Kinder-Morgan must change the discharge location to a location other than Murphy Canyon Creek, such as the San Diego River.
4. Kinder-Morgan must promptly comply with the Basin Plan Water Quality Objective for TDS. (As noted above, the San Diego Water Board's enforcement order allows Kinder-Morgan until November 30, 2015 to fully assess the issue and to implement appropriate measures to achieve compliance. The City has filed a petition for review of the time schedule order with the State Water Resources Control Board).
5. Kinder-Morgan must monitor and report to the City on the extracted groundwater.
6. Kinder-Morgan must provide the City all data related to wells, pumping test, and water quality for all work conducted on City property.
7. Kinder-Morgan must obtain annual approval from the City for continued discharges to its MS4 system.

CONCLUSION

Kinder-Morgan's projected completion of the dissolved-phase MTBE and TBA cleanup in the downgradient off-Terminal area by the December 31, 2013 CAO compliance date is finally in sight after almost two decades of effort. Kinder-Morgan reports, however, that an increase in the discharge flow rate is necessary to accommodate higher groundwater extraction rates to achieve compliance with the CAO compliance deadline. Kinder-Morgan's proposal to increase the extraction of contaminated groundwater may facilitate and expedite the cleanup. Unfortunately

⁷ Final Clean Water Act sections 303(b) and 303(d) 2008 Integrated Report for the San Diego Region, dated Feb. 9, 2010.

the City and Kinder-Morgan have been unable to agree on the conditions that must be satisfied to secure the City's approval under the existing NPDES permit. Until this apparent impasse is resolved and Kinder-Morgan is able to provide the required proof of the City's authorization to increase its discharge flow rate to Murphy Canyon Creek, the San Diego Water Board has determined that it is unable to approve Kinder-Morgan's request to increase its discharge flow rate. For all of these reasons, following the February 8, 2012 Board meeting, the San Diego Water Board Executive Officer plans to issue a letter to Kinder-Morgan denying their request to modify the NOE for an increase in the groundwater discharge flow rate.

Attachments

- B1a. City of San Diego Letter dated November 3, 2011, City of San Diego's Comments on Kinder-Morgan Energy Partners Proposed Flow Increase for its Mission Valley Terminal Remediation-Dewatering Discharge to Murphy Canyon Creek.
- B1b. Kinder-Morgan Letter dated November 16, 2011, Kinder-Morgan's Response to Written Comments Regarding Amendment of Enrollment under Order No. R9-2008-0002, Proposed Flow Increase at Kinder-Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Project, Mission Valley Terminal, San Diego, California
- B1c. City of San Diego Letter dated November 30, 2011, City of San Diego's Request for Hearing on Matters Subject to Regulatory Oversight, Kinder Morgan Energy Partners, Mission Valley Terminal
- B1d. Kinder-Morgan Letter dated December 7, 2011, Kinder-Morgan's Response to City of San Diego Request for Hearing on Matters Subject to Regulatory Oversight, SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Project, San Diego, California.

2. Post-Fire Study

Staff Contact: Lillian Busse

Severe wildfires burned large portions of San Diego County and San Bernardino County in October 2003 and October 2007. After the 2003 wildfires, the San Diego Water Board funded a project to study the impacts of the wildfires on biological conditions in southern California streams. The study was conducted by the Department of Fish and Game Aquatic Bioassessment Laboratory. The study was designed to answer the following questions: (1) To what extent do wildfires affect biological conditions? (2) How long does it take for biological conditions to recover after a wildfire? (3) Does recovery in developed and undeveloped watersheds differ? and (4) What are the primary mechanisms by which wildfires affect biological conditions?

Between 2004 and 2009, fifty sites in developed and undeveloped watersheds in San Diego and San Bernardino Counties were sampled once per year for benthic macroinvertebrates. Since the San Diego Water Board had already established a biological condition monitoring program before the 2003 wildfires, pre-wildfire data were available. The biological data were supplemented with a suite of physical habitat data. Biological data were analyzed using two

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

Significant NPDES Permits,
WDRs, and Actions of the
San Diego Water Board

February 8, 2012

APPENDED TO EXECUTIVE OFFICER'S REPORT

TENTATIVE SCHEDULE
SIGNIFICANT NPDES PERMITS, WDRS, AND ACTIONS
OF THE SAN DIEGO WATER BOARD

Action Agenda Item	Action Type	Draft Complete	Written Comments Due	Consent Item
March 14, 2012				
San Diego Water Board Office				
Update on Development of Biological Objectives (<i>Busse</i>)	Information Item	NA	NA	NA
San Clemente Water Reclamation Facility (<i>Osibodu</i>)	Master Reclamation Permit update	100%	12-Jan-12	Yes
Fallbrook Public Utility District, Plant 1 (<i>Neill</i>)	NPDES Permit Reissuance	10%	Jan. 9, 2012	No
Waste Discharge Requirements, Jonas Salk Elementary School (<i>Monji</i>)	New WDRs	75%	TBD	Maybe
Shipyards Sediment Cleanup: Non-evidentiary Meeting to Deliberate, and Certify, or Deny FEIR. (<i>Melbourn</i>)	EIR Adoption	100%	TBD, if necessary	No
Shipyards Sediment Cleanup: Non-evidentiary Meeting to Deliberate, and adopt, modify, or reject TCAO/DTR (<i>Melbourn</i>)	TCAO Adoption	95%	TBD, if necessary	No
April 11, 2012				
Orange County				
Update from the Three Integrated Regional Water Management (IRWM) Groups (<i>Walsh</i>)	Information Item	NA	NA	NA
NPDES Permit Reissuance with the South Orange County Waste Authority - San Juan Creek Ocean Outfall (<i>Joann</i>)	NPDES Permit Reissuance	80%	March 19, 2012	No
NPDES Permit Reissuance with the South Orange County Waste Authority - Aliso Creek Ocean Outfall (<i>Joann</i>)	NPDES Permit Reissuance	80%	March 19, 2012	No
Nomination of Santa Ysabel Chevron to State Emergency, Abandoned and Recalcitrant Site List (<i>Pease</i>)	Resolution	0%	NA	no
May 9, 2012				
San Diego Water Board Office				
Responding to Comments (<i>Barker, Chan and Carlisle</i>)	Information Item	NA	NA	NA
Rescission of Six WDRs for sand and gravel/asphalt batch concrete grinding facilities (<i>Tobler</i>)	WDR Rescissions	0%	Mar. 14,2012	Yes
US Navy--Naval Base San Diego (including Graving Dock) - San Diego Bay (<i>Schwall</i>)	NPDES Permit Reissuance	80%	Mar. 19, 2012	No
Total Maximum Daily Load for Sediment to Los Penasquitos Lagoon (<i>Henning</i>)	Hearing: Basin Plan Amendment	90%	29-Mar-12	No
Reissuance of General Permit for Closed, Abandoned, Inactive Landfills (<i>Grove</i>)	Updated Waste Discharge Requirements	95%	Mar. 14, 2012	No
New General Permit for Closed, Abandoned, Inactive Burn Sites (<i>Grove</i>)	New Waste Discharge Requirements	95%	Mar. 14, 2012	No



Attachment B1a, EO Report
Kinder Morgan, Mission Valley Terminal

THE CITY OF SAN DIEGO

November 3, 2011

Via Email to dgibson@waterboards.ca.gov and
bneill@waterboards.ca.gov and Hand Delivery

Mr. David W. Gibson, Executive Officer
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Mr. Ben Neill, P.E.
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Re: City of San Diego's Comments on Kinder Morgan Energy Partners Proposed Flow Increase for its Mission Valley Terminal Remediation Dewatering Discharge to Murphy Canyon Creek; CRU: 240988:bneil; WDID No: 9 000000506

Dear Gentlemen:

Thank you for the opportunity to comment on the request by Kinder Morgan Energy Partners ("Kinder Morgan") for an increase in the average daily discharge of treated groundwater to Murphy Canyon Creek ("Creek") from 795,000¹ gallons per day to 1.26 million gallons per day. These comments are submitted jointly by the City of San Diego ("City") Transportation & Storm Water Department ("TSWD") and Public Utilities Department.

The City prefaces these comments with the caveat that it has appealed the Regional Water Quality Control Board's ("RWQCB") adoption of the related Time Schedule Order No. R9-2011-0052 ("TSO"), which improperly allows Kinder Morgan to pollute Murphy Canyon Creek with Total Dissolved Solids ("TDS") in concentrations which significantly exceed the Creek's receiving water limits for TDS as established in the Basin Plan. That appeal is pending and, although your letter discouraged comments related to the TSO, the City is compelled to point out that a significant issue raised on appeal is the impropriety of separating the decision setting TDS effluent limits from the decision on increasing the flow of treated groundwater to the Creek.

¹ According to the City's records, the City was not provided an opportunity to comment on the increase of the flow rate from 505,000 gallons per day to 795,000 gallons per day; but was only informed of the RWQCB's approval of this increase after the fact.



Transportation & Storm Water Department

9370 Chesapeake Drive, Suite 100, MS 1900 • San Diego, CA 92123

Hotline (619) 235-1000 Fax (858) 541-4350



These two decisions are intricately interrelated because, if the flow increases, the mass loading will increase based on the interim effluent limits of the TSO. These two factors cannot logically be separated. Amongst other relief, the City has requested remand of that issue to the RWQCB and requested that the TDS effluent limits and flow increase request be rejoined for rehearing and action by the RWQCB itself. Thus, the City believes that any decision by the Executive Officer that would allow any increase in the discharge flow rate is premature.

Moreover, these comments are offered under a full reservation of rights with respect to the issues on appeal and any other issues related to this matter. That said, the City offers the following comments and proposal in response to Kinder Morgan's pending request for a flow rate increase. First, discharges to the City's storm water conveyance system, including the Creek, are prohibited in the absence of the City's prior approval of the discharge. The permit under which the RWQCB has allowed these discharges for many years expressly prohibits the discharge of extracted ground water waste into the City's municipal separate storm sewer system ("MS4") *without the prior approval of the MS4 operator*. [Order No. R9-2008-0002 NPDES No. CAG919002 ("Order") §II.D].² The City has never approved any discharge by Kinder Morgan of extracted groundwater to the Creek, and the RWQCB has not enforced this requirement of Kinder Morgan's permit. That permit violation must be rectified. The City's proposal in that regard is set forth later in this letter.

Second, that same permit expressly requires the discharger to demonstrate alternatives to discharging extracted groundwater waste into the MS4 and to demonstrate why it is technically or economically infeasible to implement these alternatives before any such discharge is permissible. [Order §II.D]. This demonstration is a prerequisite to obtaining the MS4 operator's consent to the discharge in the first place. Kinder Morgan must demonstrate infeasibility to the City's satisfaction as well as to the satisfaction of the RWQCB. But this requirement has not been met. The discharger has simply been allowed to implement and continue this practice in complete disregard of this permit condition.

In contrast, the City has repeatedly argued for and submitted scientific analyses suggesting that some, if not all, the extracted groundwater could be re-injected to the aquifer and thereby accelerate the remediation of the MTBE/TBA plume. Re-injection via recharge basins or injection wells is being used successfully in other jurisdictions in California under similar circumstances, i.e., the recharging of treated groundwater recovered under pump and treat remediation. Other alternatives for beneficial re-use of this water also may be available. But those alternatives have not been studied and demonstrated to the City's satisfaction because Kinder Morgan has ignored this requirement, and the RWQCB has not enforced it. The City would expect the RWQCB, as the agency responsible for enforcing Kinder Morgan's permit, to require Kinder Morgan to perform a comprehensive evaluation of alternatives to the current waste of this water and demonstrate to the City's satisfaction that it is technically or economically infeasible to implement alternatives, e.g., re-injecting it into the aquifer (now that

² The prior permit under which the RWQCB allowed these discharges also contained the same prohibition. [Order No. 2001-96 NPDES No. CAG919002 §A.11]

City of San Diego's Comments on Kinder Morgan Energy Partners Proposed Flow Increase
November 3, 2011

the manganese treatment system is apparently functioning properly)³ or recycling treated groundwater On-Terminal through a recharge basin.

Third, the RWQCB has the power to order Kinder Morgan to compensate the City for the cost of replacing the water Kinder Morgan extracts from the City's aquifer to clean-up the contamination Kinder Morgan created. California Water Code section 13304(a) provides broad authority to the Regional Boards to include the costs of replacement water as part of clean-up and abatement orders. Specifically, Regional Boards "may require the provision of, or payment for, uninterrupted replacement water service . . . to each affected public water supplier . . ." Cal. Water Code § 13304(a).

The City is a public water supplier and has Pueblo rights to the use of the groundwater of the Mission Valley Aquifer. These are the oldest and highest priority water rights in California. The use of the City's ground water is an *essential* component of the remediation system unilaterally selected by Kinder Morgan and accepted by the RWQCB. The City had no choice in the selection of this remedial technology and indeed advocated early on for the use of different remedial technology which would have minimized the use of the City's water. Those pleas were ignored, and the City has been subjected for over a decade to the taking of its water without any compensation. The sole reason for this use of the City's water is the remedial methodology chosen by Kinder Morgan to fulfill its obligations to clean up its mess at the lowest possible cost. Why should taxpayers continue to bear the burden of Kinder Morgan's failures? The City urges the RWQCB to remedy this inequity and exercise its discretion to order Kinder Morgan to pay the City for the cost to replace the water Kinder Morgan extracts.

Fourth, just how the proposed increased flow rate will aid in expediting remediation as claimed in the TSO has yet to be explained. Kinder Morgan's application included only cursory statements in this regard. The City understands that staff reviewed some documentation provided by Kinder Morgan, but no technical analysis has been made available to the City or the public. The City is perplexed that such a request would even be entertained without the technical backup materials.

Finally, with respect to obtaining the City's approval of the discharge of extracted groundwater from Kinder Morgan's remediation system to the City's MS4 system, we would recommend the City consider such approval, for a period of one year, under the following conditions:

1. Kinder Morgan pays the City, on a monthly basis, for the replacement cost of groundwater Kinder Morgan extracts from the City's Mission Valley Aquifer to clean-up the contamination; and
2. Kinder Morgan completes and submits within 2 months a comprehensive analysis demonstrating alternatives to discharging extracted groundwater waste into the MS4 and demonstrating why it is technically or economically infeasible to implement these alternatives for some or all of the discharge; and
3. If the analysis is thorough and shows to the City's satisfaction that it is technically or economically infeasible to implement any of the alternatives other than a live stream discharge to the City's MS4 system, then:

³ Arcadis 3Q 2011 GW Monitoring & Remediation Progress Report, p. 46.

- a. To avoid maintenance impacts to the Creek, Kinder Morgan must be required to discharge to a location other than the Creek, such as directly to the San Diego River; and
- b. Kinder Morgan must bring TDS levels in the discharge promptly into compliance with the Basin Plan standard of 1500 mg/L; and
- c. Kinder Morgan must be required to conduct monthly monitoring (and quarterly reporting to the City) of the extracted groundwater treatment system; and
- d. Kinder Morgan must be required to produce to the City on a quarterly basis all data related to wells, pumping tests, and water quality for all work performed by Kinder Morgan, its consultants or contractors on City property; and
- e. Kinder Morgan must obtain annual approval from the City for continued discharges to its MS4 system.

Thank you again for the opportunity to comment on this very important issue. Please contact us if you have any questions. We look forward to working with you to reach a mutually acceptable resolution to this matter.

Sincerely,



Alex Ruiz
Assistant Director
Public Utilities Department



Kris McFadden
Deputy Director
Transportation & Storm Water Department

cc: Julie Chan, RWQCB
John Anderson, RWQCB
Craig Carlisle, RWQCB
Robert Morris, RWQCB
Sea McClain, RWQCB
Dr. Paul Johnson
Dr. Margaret Eggers
Scott Martin, Kinder Morgan
Rick Ahlers, Arcadis
Roger Bailey, City of San Diego
Kip Sturdevan, City of San Diego
Marsi Steirer, City of San Diego
Almis Udrys, City of San Diego
Ruth Kolb, City of San Diego
Greg Cross, City of San Diego
Dr. Richard Jackson, Geofirma
Rob Sengebush, INTERA
Richard Opper, Counsel for City of San Diego
Fritz Ortleib, Deputy City Attorney
Grace Lowenberg, Deputy City Attorney

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SFPP, LP
Operating Partnership

Attachment B1b, EO Report
Kinder Morgan, Mission Valley Terminal

November 16, 2011

Mr. Ben Neill
Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

Subject: Response to Written Comments Regarding Amendment of Enrollment under Order No. R9-2008-0002, Proposed Flow Increase at Kinder Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Project, Mission Valley Terminal, San Diego, California (TSMC:40 0054)

Dear Mr. Neill:

SFPP, L.P. operating partnership of Kinder Morgan Energy Partners, L.P. (“Kinder Morgan”) provides the attached responses to written comments submitted in response to the Proposed Flow Increases at the Mission Valley Terminal Remediation Dewatering Project under Waste Discharge Requirements (“WDRs”) Order No. R9-2008-0002, NPDES No. CAG919002.

Kinder Morgan has reviewed the comments and offers the following submittals in response. First, we enclose a letter from the Principal and Senior Civil Engineers from ARCADIS, U.S., Inc., in charge of the ongoing remediation efforts. The ARCADIS letter addresses the technical issues raised by the comments received and helps match the technical data in the record with those comments that are unsubstantiated. Second, we enclose a letter from Katharine Wagner, from Downey Brand LLP, addressing legal arguments raised by the City of San Diego. Third, please find enclosed a report summarizing portions of the analytical groundwater model assessing the need to increase discharges from the remediation site. (Groundwater Modeling in Support of the Request to Increase Daily Average Discharge Rate under Order No. R9-2008-0002, NPDES Permit No. CAG919002; Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California. 17 November 2011, ARCADIS, U.S.)

Kinder Morgan provides this detailed response with the aim of thoroughly addressing each concern raised in the comments submitted. However, since many of the comments did not provide new or revised technical information, we note that much of our response relates back to information already before the Regional Water Quality Control Board.

Mr. Ben Neill
Regional Water Quality Control Board – San Diego Region
November 17, 2011
Page 2

Please address any questions in this matter to me at scott_martin@kindermorgan.com.

Sincerely,



Scott Martin, P.G
Manager, Remediation

Enclosures

cc: Nancy Van Burgel, KMEP
Rick Ahlers, Arcadis
Marcelo Garbiero, Arcadis
Katharine Wagner, Downey Brand LLP
David Gibson, RWQCB
Bob Morris, RWQCB
Julie Chan, RWQCB
Craig Carlisle, RWQCB
Sean McClain, RWQCB
Grace Lowenberg, City of San Diego



Mr. Ben Neill
California Regional Water Quality Control Board
San Diego Region
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ARCADIS U.S., Inc.
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Subject:

Response to Written Comments Regarding Amendment of Enrollment under Order No. R9-2008-0002, Proposed Flow Increase at Kinder Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Project, Mission Valley Terminal, San Diego, California (TSMC:40-0054)

ENVIRONMENT

Date:
November 16, 2011

Dear Mr. Neill:

Contact:
Marcelo Garbiero, P.E.

ARCADIS U.S., Inc. (ARCADIS) has prepared the following letter on behalf of SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. (Kinder Morgan) providing responses to matters raised by the City of San Diego (City) with regard to the proposed increase to the daily average discharge flow rate permitted under the existing enrollment under Order No. R9-2008-0002, NPDES Permit No. CAG919002 (General Permit). The City of San Diego (City) Public Utilities Department and Transportation & Storm Water Department jointly submitted written comments to the Regional Water Quality Control Board, San Diego Region (RWQCB) on November 3, 2011. These comments were submitted in response to the RWQCB's October 21, 2011 Notice of Opportunity to Submit Written Comments Regarding Proposed Flow Increase at Kinder Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Project.

Phone:
562.496.3000

Email:
marcelo.garbiero@arcadis-us.com

Our ref:
CM010143.0078

Kinder Morgan appreciates the opportunity to respond and comment on these matters. At the core of this issue is the intention to accelerate the cleanup of groundwater to comply with the compliance criteria set forth in Directive No. 3 of Addendum No. 5 to Cleanup and Abatement Order (CAO) No. 92-01. As stated in the original request for enrollment modification,¹ the objective of accelerating the

¹ ARCADIS U.S., Inc. Request to Increase Daily Average Discharge Rate under Order No. R9-2008-0002, NPDES Permit No. CAG919002; Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California. 24 August 2010.

groundwater remediation activities is to “comply with the criteria ahead of the specified deadline” of December 31, 2013, which is in the interest of all stakeholders.

ARCADIS has performed groundwater modeling to assess the necessity for increasing discharge beyond the currently permitted 550 gallons per minute (gpm) and to assess the sufficiency of the requested 850 gpm discharge limit.² A summary of this analysis is being submitted to the RWQCB with this package, and confirms the necessity of the requested increase.

Kinder Morgan continues to take aggressive steps to meet its obligations regarding the cleanup of the City’s groundwater in accordance with the requirements set forth by the RWQCB. Kinder Morgan has undertaken a decisive and adaptive remedial strategy using robust technologies known to be effective in many subsurface conditions. All known alternatives for disposal of the treated groundwater have been thoroughly evaluated and presented to the RWQCB most recently in the application for re-enrollment under the General Permit. Technical and economic feasibility evaluation has shown that discharge to surface waters under the existing General Permit is the only feasible option considering technical, regulatory, and economic factors.

Kinder Morgan remains focused on taking steps that are protective of beneficial uses of groundwater and that provide the maximum benefit to the people of the State. ARCADIS is unaware of any viable beneficial re-use options currently available for the treated groundwater. However, as the RWQCB knows, Kinder Morgan has in the past offered to provide the City with water treated by the remediation system, and Kinder Morgan remains committed to discussing options for beneficial re-use of treated groundwater as the City proposes in their written comments.

The existing cleanup of the Mission Valley alluvial groundwater and the protection of that groundwater through the maintenance of a hydraulic containment barrier remain dependent on a continuous and reliable option for discharge of treated groundwater, as has been the case for many years. The City objects to this discharge to Murphy Canyon Creek in its comments despite its importance to the timely cleanup of the

² ARCADIS U.S., Groundwater Modeling in Support of the Request to Increase Daily Average Discharge Rate under Order No. R9-2008-0002, NPDES Permit No. CAG919002; Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California. 17 November 2011.

groundwater. Delays in approval of the increased rate of discharge will jeopardize the successful completion of these objectives, and further delay is not justified.

Detailed Response to City Comments

In keeping with the RWQCB's attempt to convene a technical meeting between the RWQCB, the City and Kinder Morgan, we understood the October 21, 2011 request for comments to seek technical information regarding the proposed increase in flow and Murphy Canyon Creek channel maintenance. The City's letter provides no technical information in this regard and only refers to a prior City submittal of "scientific analysis suggesting that some, if not all, the extracted groundwater could be re-injected to the aquifer and thereby accelerate the remediation of the MTBE/TBA plume."

Although there is no new technical support in the City's comments, for the RWQCB's ease of reference, ARCADIS provides specific technical responses to issues referred to by the City. The City provided comments under five categories:

1. Alleged non-compliance with NPDES General Permit requirements;
2. Alleged availability and feasibility of alternate discharge or re-use options;
3. Alleged right to compensation for "use of the City's water;"
4. Request for a technical analysis demonstrating the effects of flow increase on the pace of cleanup; and
5. City demands for conditional approval of discharge to MS4.

The City's comments do not discuss any potential impacts on the channel, including any "impacts on vegetation management, scour and build-up of sedimentation and erosion in the channel" referred to in minutes from their recent meeting with the RWQCB.³ The City also does not provide any technical support for its prior assertions that the proposed *flow increase* would affect these conditions within

³ Meeting between the RWQCB staff and the City of San Diego. Meeting Notes October 4, 2011, 10 – 11 a.m.

Murphy Canyon Creek. As ARCADIS and Kinder Morgan have previously explained, the existing discharge and proposed increased discharge do not add sedimentation to the Creek. In the treated groundwater, sediments and suspended and settleable solids are reduced by the treatment process to extremely low concentrations, well below those found in Murphy Canyon Creek and in urban runoff. The presence of the discharge flow could possibly mobilize minor amounts of sediments already present in the half-mile section of Murphy Canyon Creek between the discharge point and the San Diego River, but only to a very limited and localized extent since the overwhelming majority of sediment redistribution is associated with larger flows typically occurring with precipitation events. Any maintenance associated with the presence of sediments in the receiving water would not be the result of Kinder Morgan's discharges permitted under Order No. R9-2008-0002, which do not contribute sediments to the system.

Issue #1: Alleged Non-Compliance with NPDES General Permit Requirements

The City claims that "discharges to the City's storm water conveyance system, including the [Murphy Canyon] Creek, are prohibited in the absence of the City's prior approval of the discharge." Additionally, the City states that the General Permit "expressly prohibits the discharge of extracted groundwater waste into the City's municipal separate storm sewer system (MS4) *without the prior approval of the MS4 operator.*"

- Kinder Morgan does not need the City's consent for continuing its discharge or amending its enrollment. Separate legal comments submitted by Kinder Morgan simultaneously with this letter explain the City's apparent misunderstanding of the General Permit and the discharge. The RWQCB has regulated the discharges to Murphy Canyon Creek under its NPDES program, at least as far back as 1996. The City's claim that it must approve the discharge has not previously been raised. Review of the permit indicates that the provision on MS4 approval is part of the background permit information regarding the *initiation* of discharges to an MS4. We find no "prohibition" of discharges without MS4 approval, or a requirement for MS4 operator satisfaction with details of the discharge. Section II.D itself cites its purpose as to "encourage communication" "in an effort to avoid misunderstandings and concerns over the types of discharges covered by this WDR."

The City comments that the General Permit “expressly requires the discharger to demonstrate alternatives to discharging extracted groundwater waste into the MS4 and to demonstrate why it is technically or economically infeasible to implement these alternatives before any such discharge is permissible.” The City states that “This demonstration is a prerequisite to obtaining the MS4 operator's consent to the discharge in the first place. Kinder Morgan must demonstrate infeasibility to the City's satisfaction as well as to the satisfaction of the RWQCB.” Additionally, the City states that “Other alternatives for beneficial re-use of this water also may be available. But those alternatives have not been studied and demonstrated to the City's satisfaction”

- The General Permit Notice of Intent (NOI) requires the applicant to “Identify and discuss technical and economic feasibility of alternative disposal options” under “Items Required for Determining Eligibility.” This is a requirement imposed by the RWQCB for its own use in the application process. It is not clear why the City presumes that this allows their satisfaction in the matter to dictate whether the RWQCB can approve a General Permit application for amendment of enrollment.
- The technical and economic feasibility of alternate disposal options were presented to the RWQCB in the NOI.⁴ This requirement to the RWQCB has been fulfilled. The evaluation submitted assessed aquifer re-injection, discharge to a Publicly Owned Treatment Works (POTW), and discharge to a water reclamation facility.
- With respect to alternatives for “beneficial re-use”, Kinder Morgan has always been open to such options, if they exist, and in meetings and correspondence has expressed willingness to provide the treated groundwater to the City, unconditionally. The City has never responded to these offers with any proposal for use of the treated groundwater. Kinder Morgan remains, as always, willing to evaluate and discuss the feasibility of such options if the City or any other interested party has any to suggest. However, the remediation project should not be delayed in the meantime.

⁴ LFR an ARCADIS Company. Re-Enrollment for Coverage under NPDES General Permit No. CAG919002 (WDR). 11 March 2009.

Given the current lack of feasible alternatives, amendment of the project's enrollment under the General Permit should proceed.

Issue #2: Alleged Availability and Feasibility of Alternate Discharge or Re-Use Options

The City claims to have presented “scientific analyses suggesting that some, if not all, the extracted groundwater could be re-injected to the aquifer and thereby accelerate the remediation of the MTBE/TBA plume.” Further, the City states that “re-injection via recharge basins or injection wells is being used successfully in other jurisdictions in California under similar circumstances... ”

- Kinder Morgan is unaware of any “scientific analyses” provided by the City that addresses all of the pertinent issues necessary to support the claim that re-injection is not only beneficial but technically and economically feasible.

The City calls for “comprehensive evaluation of alternatives to the current waste of [groundwater] and demonstrate to the City’s satisfaction that it is technically or economically infeasible to implement alternatives, e.g., re-injecting [treated groundwater] into the aquifer (now that the manganese treatment system is apparently functioning properly) or recycling treated groundwater On-Terminal through a recharge basin.”

- With respect to the City’s claim the current discharge of treated groundwater is a “waste” of the resource; the issue has been discussed at length by the RWQCB, the City, and Kinder Morgan. The City continues to mischaracterize this issue and fails to provide any legal or technical basis for its claims. As stated in the RWQCB letter to the City dated July 16, 2009 entitled “Response to City of San Diego’s Letter, Dated June 25, 2009, Mission Valley Terminal, Cleanup and Abatement Order No. 92-01 and Addenda Thereto”:

“No evidence has been submitted [by the City] that demonstrates that the remedial activities are diminishing the quantity of this resource. The aquifer is in hydrologic contact with the San Diego River and is recharged in part by the San Diego River. Groundwater elevation data from the site does not show that Kinder Morgan’s groundwater extraction is creating a condition of near or long term overdraft of the aquifer. Furthermore, the City’s statement that the

aquifer cannot be developed in its present contaminated state is simply untrue. Addendum No. 5 to the CAO requires Kinder Morgan to submit a Drinking Water Replacement Contingency Plan that includes a provision for Kinder Morgan to provide uninterrupted replacement water service, which may include wellhead treatment, if the City were to develop a water supply project before the cleanup is complete. In fact, Kinder Morgan has stated numerous times that they would provide wellhead treatment to any off-terminal area that could be impacted by petroleum releases from the Mission Valley Terminal.”

- A plan to develop this aquifer has not been provided to any concerned party to date. The aquifer is not a contained reservoir that is being drawn from and emptied. The area of groundwater extraction is continually under recharge from upstream areas. This is evidenced by the ongoing levels of groundwater extraction that are necessary to maintain a dewatered state in the LNAPL remediation area. Any suggestion that there is a fixed amount of water that is being wasted ignores basic hydrogeologic concepts and mischaracterizes available information on local hydrology.
- With respect to the issue of re-injection of treated groundwater, Kinder Morgan and ARCADIS remain of the opinion that the risks posed by such a strategy at this site far outweigh the potential remedial benefits that may be realized. The City continues to press the claim that mineral fouling is not a concern since the current groundwater treatment plant is successfully removing manganese. To reiterate comments provided previously:
 - The groundwater is very high in naturally occurring minerals. There are on average over 2,000 milligrams of naturally occurring total dissolved solids in every liter of groundwater. That is over two grams of salts in every liter of groundwater. That high mineral content is essentially supersaturated in the water, and there is a strong tendency for those minerals to come out of solution and produce scale.
 - Dissolved manganese and iron constitute less than 1 percent of the total *natural* mineral content of the groundwater in the Mission Valley aquifer. Calcium and magnesium are the more significant components of the total mineral load, comprising nearly half of the

total mineral content. Total calcium and magnesium concentrations, termed “hardness”, are not significantly affected by the presence of petroleum constituents in groundwater. The treated discharge has a total hardness of 900 to 1000 mg/L, which is classified as “Very Hard” by the United States Geologic Survey (USGS). Harder waters have a greater tendency to precipitate and scale. Further, as noted by the US Army Corp of Engineers (USACE), “Indicators of Incrusting Water” include “total carbonate hardness in excess of 300 ppm”⁵.

Issue #3: Alleged Right to Compensation for “use of the City’s Water”

The City indicates that “the RWQCB has the power to order Kinder Morgan to compensate the City for the cost of replacing the water Kinder Morgan extracts from the City’s aquifer to clean-up the contamination...” on the basis of California Water Code (CWC) section 13304(a) and the existence of “Pueblo rights to the use of the groundwater of the Mission Valley Aquifer.”

- Since the issuance of Addendum No. 5 on April 13, 2005, Kinder Morgan is obligated by Directive No. 9 of Addendum No. 5 to provide a plan for monitoring, remediation, and replacement water service in the event that a public or private water supply well is installed downgradient of contamination. Such a water supply well does not exist and further, to our knowledge, the City has not provided a plan to develop this aquifer with water supply wells or sought a permit from the California Department of Health Services for such water supply wells.
- Kinder Morgan has repeatedly, and prior to issuance of Addendum No. 5 to CAO 92-01, offered to provide the treated groundwater generated to the City for beneficial re-use. The City has never responded to these offers with any proposals for beneficial use of the groundwater.
- Comments submitted by Kinder Morgan legal counsel further address the requirements of Water Code Section 13304 and the City’s assertion that the

⁵ USACE. “Design, Construction, and Maintenance of Relief Wells”: pg 3-6 Table 3-1. 29 May 1992.

Regional Board should require that Kinder Morgan pay the City for extracted groundwater.

Issue #4: Request for a Technical Analysis Demonstrating the Effects of Flow Increase on the Pace of Cleanup

The City questions “how the proposed increased flow rate will aid in expediting remediation as claimed in the TSO”.

- ARCADIS has previously explained the benefits of the flow increase on the remediation project. Groundwater modeling has confirmed the necessity for increasing discharge beyond the currently permitted 550 gpm.⁶ Both the necessity and sufficiency of the requested increase are discussed in the ARCADIS Technical Memo dated November 17, 2011, submitted to the RWQCB as part of this package.

Issue #5: City Demands for Conditional Approval of Discharge to MS4

The City describes a series of conditions under which they propose to consider providing approval of the discharge of treated groundwater for a period of one year. Increasing the discharge for one year will not meet the needs of the remediation project or the requirements of the CAO. The comments submitted by Kinder Morgan’s legal counsel discuss whether the City has authority to set conditions. However, ARCADIS offers the following technical responses to the City’s proposed conditions, as follows:

Condition 1: “Kinder Morgan pays the City, on a monthly basis, for the replacement cost of groundwater Kinder Morgan extracts from the City’s Mission Valley Aquifer to clean-up the contamination”

- The issue of replacement water is discussed under Issue #3 above.

⁶ ARCADIS U.S., Groundwater Modeling in Support of the Request to Increase Daily Average Discharge Rate under Order No. R9-2008-0002, NPDES Permit No. CAG919002; Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California. 17 November 2011.

Condition 2: "Kinder Morgan completes and submits within 2 months a comprehensive analysis demonstrating alternatives to discharging extracted groundwater waste into the MS4 and demonstrating why it is technically or economically infeasible to implement these alternatives for some or all of the discharge"

- This is discussed under Issues #1 and 2 above.

Condition 3: "If the analysis is thorough and shows to the City's satisfaction that it is technically or economically infeasible to implement any of the alternatives other than a live stream discharge to the City's MS4 system, then:

Condition 3a: "To avoid maintenance impacts to the Creek, Kinder Morgan must be required to discharge to a location other than the Creek, such as directly to the San Diego River; and"

- The City provides no technical support to the claim that the proposed flow increase would have an adverse impact on the conditions within the Creek. Moving the discharge to the San Diego River would be extremely costly, and the benefits have not been justified in the City's comments.

Condition 3b: "Kinder Morgan must bring TDS levels in the discharge promptly into compliance with the Basin Plan standard of 1500 mg/L; and"

- The Regional Board's October 21, 2011 request for comments expressly excludes TDS issues from its scope. The TSO establishes the mechanism by which the RWQCB will address TDS levels in the discharge.

Condition 3c: "Kinder Morgan must be required to conduct monthly monitoring (and quarterly reporting to the City) of the extracted groundwater treatment system; and"

- Monitoring of the treated groundwater discharge is submitted to the RWQCB on a monthly basis as part of the Self Monitoring Report program. These documents are in the public domain and available to the City and any other interested parties.

Condition 3d: "Kinder Morgan must be required to produce to the City on a quarterly basis all data related to wells, pumping tests, and water quality for all work performed by Kinder Morgan, its consultants or contractors on City property; and"

- Monitoring and well installation information is provided to the RWQCB as required under the CAO and General Permit. These documents are in the public domain and available to the City and any other interested parties.

Condition 3e: "Kinder Morgan must obtain annual approval from the City for continued discharges to its MS4 system."

- We find no requirement for annual approvals in the General Permit. Kinder Morgan's legal counsel will address the basis for any specific demands by the City for conditions on the RWQCB's approval of the discharge.

If you have questions regarding the material presented in this report, please contact either of the undersigned.

Sincerely,

ARCADIS



C. Fredrik (Rick) Ahlers, P.E.
Principal Civil Engineer



Marcelo A. Garbiero, P.E.
Senior Civil Engineer

Copies:

S. Martin, KMEP
N. Van Burgel, KMEP

November 16, 2011

Mr. Ben Neill
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

Subject: Response to City of San Diego Public Utilities Department's and Transportation & Storm Water Department's Comments on Tentative Order No. R9-2011-0052 to Provide a Time Schedule Order for Kinder Morgan Energy Partners to Comply with a Discharge Prohibition in its NPDES Permit No. CAG919002 for its Mission Valley Terminal Dewatering Discharge to Murphy Canyon Creek, Mission Valley Terminal, San Diego, California (TSMC:40-0054)

Dear Mr. Neill:

The City of San Diego (City) Public Utilities Department and Transportation & Storm Water Department jointly submitted written comments to the Regional Water Quality Control Board, San Diego Region (RWQCB) on November 3, 2011 in response to the RWQCB's October 21, 2011 Notice of Opportunity to Submit Written Comments Regarding Proposed Flow Increase at Kinder Morgan Energy Partners, Mission Valley Terminal Remediation Dewatering Project. On behalf of our client, SFPP, L.P., operating partnership of Kinder Morgan Energy Partners, L.P. (Kinder Morgan), we appreciate the opportunity to address the City's legal arguments and provide the following response to the City's comments.

It is important to note that the City provided no new information in their comments to the RWQCB, opposing the proposed increased flows. Rather, the City only offered a detailed list of conditions and impediments it wishes to have imposed on Kinder Morgan to encumber the remediation efforts which have been long underway and are nearing completion. The City did not substantiate their proposed conditions with technical data, nor did the City provide a proper legal basis for their arguments.

I. There is no Legal Basis for the City's Allegations that the NPDES General Permit Requires City Approval and Satisfaction of City Conditions

Over a decade after discharges from the remediation system to Murphy Creek commenced, the City has suddenly asserted that the discharge enters the City's MS4, and that the City's prior approval is required for the continuation of Kinder Morgan's discharge under NPDES Permit No. CAG919002 (General Permit). The City cites Provision II.D, which is one of the conditions to enrollment described in the General Permit. Many projects are discharging extracted or pumped groundwater throughout the area, including projects operated by the City itself. This appears to be the first time the City has asserted the right to impose drastic conditions, such as payment for extracted water, as a condition to the RWQCB's General Permit enrollment, much less as a condition to continued enrollment of existing projects. We have no choice but to conclude that the City is attempting to place hurdles in the path of progress in the remediation project, simply in order to further its agenda in litigation it has filed against Kinder Morgan in court. The RWQCB should not jeopardize its efforts to achieve effective remediation of the site, by allowing the City to enmesh the RWQCB into the separate dispute between the parties.

While the City's comments appear a transparent effort to achieve other ends, we provide the RWQCB specific observations on some of the City's specific assertions.

A. Provision II.D is Irrelevant because Murphy Canyon Creek is not an Municipal Separate Storm Sewer System (MS4)

Provision II.D is inapplicable to this discharge, because Murphy Canyon Creek is a receiving water, identified in the enrollment as a water of the United States, and is not the City's MS4. We note that the MS4 NPDES permit covering the City's MS4 defines MS4 as follows:

“A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, . . .; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.26.”

(See Order No. R9-2007-0001 section C-6.) The definition does not encompass waters of the U.S. identified as receiving waters. Thus, Murphy Canyon Creek is not an MS4.

B. Provision II.D does not Provide Authority to Stop or Impose Conditions on the Discharge

Even if the RWQCB were to find this is a discharge into an MS4, Provision II.D would not create authority on the part of the City to prohibit or prescribe specific conditions on the discharge. Provision II.D is not a discharge prohibition. It appears in a background information section of the General Permit, directing that permittees contact an MS4 operator before initiating discharges to its MS4. The provision appears intended simply to convey information to the

RWQCB and the discharger about the existence of an MS4 that may also have separate considerations. (See NPDES No. CAG919002 II.D (“This requirement encourages communications between the Dischargers enrolled under this WDR and local agencies responsible for MS4s in an effort to reduce misunderstandings and concerns over the types of discharges covered by this WDR”).) The provision makes no mention of MS4 approvals being required for amendments to existing enrollments.

In any event, arguments concerning prerequisites to commencement of the discharge are moot, and the City should not be permitted to raise this hurdle at this juncture in the project. The Mission Valley Terminal’s discharge is an existing project that has been enrolled under three successive versions of the same NPDES permit, Permit No. CAG919002, since at least 1996. (Order Nos. 96-41, 2001-0096, and 2008-0002). This discharge commenced at least fifteen years ago, and a costly and complex remediation system has been designed and installed under RWQCB oversight, in reliance on its continuation, and with the City’s knowledge. The City has participated extensively in RWQCB proceedings, admits that language similar to Provision II.D existed in prior Order No. 2001-96, has been copied on multiple amendments increasing the discharge rate, and has never before raised this issue.

The City’s letter suggests it may never have heard about the project’s enrollment or the amendment to the enrollment that allowed increased flow in late 2009. To the contrary, the enrollment amendment letter dated December 31, 2009, shows copies to Kris McFadden, Deputy Director, City of San Diego Storm Water Pollution Prevention Division, and Marsi Steirer, Deputy Director, City of San Diego Water Department. The original enrollment under Order No. 2008-0002, dated June 23, 2009, was also copied to Mr. McFadden and Ms. Steirer.

While the City’s knowledge of the discharge undoubtedly existed much earlier, we easily identified written correspondence to the City dating back to 1999, discussing the fact that the system discharges under an NPDES permit to Murphy Canyon Creek. A letter dated April 20, 1999 from Mark J. Sandon, Kinder Morgan Energy Partners L.P. to Joan Bennett, City of San Diego, Metropolitan Wastewater Department, applying for temporary discharge of treated groundwater to the City’s sewer system for a maximum allowed term of two years, describes that the discharge was covered under NPDES Order No. 96-41 for discharge to Murphy Canyon Creek.

Over the years, Kinder Morgan designed and installed a costly and complex remediation system, under RWQCB oversight. It did so in reliance on its continued ability to discharge extracted groundwater, unaware that the City intended to block the discharge by requiring a prior approval and extracting money and detailed conditions as a prerequisite to continuing the discharge. Kinder Morgan would be seriously injured by delays in its ability to meet deadlines in the CAO.¹

¹ Legally, any action by the City to terminate or seek termination of the discharge would also be barred by the doctrine of estoppel. Estoppel may be asserted against the government where justice and right require it. *City of Los Angeles v. Cohn* (1894) 101 Cal. 373, 377. The government will be bound by an equitable estoppel in the same

In sum, Provision II.D does not prevent the RWQCB from approving an amendment to the existing enrollment of this discharge under the General Permit. Nor should the City be allowed to raise this issue at this juncture, more than a decade after commencement of the discharge.

C. The RWQCB Lacks Authority to Impose the City's Proposed Conditions

The City claims that Provision II.D gives it ongoing veto power over the discharge, and the right to invent conditions to its satisfaction. It is legally impossible for an NPDES permit to grant the City new authority over a discharger. If the RWQCB had found a condition to enrollment under the General Permit lacking, the RWQCB's "remedy" would have been not to enroll the discharge, and thus to terminate it. This would have stopped the remediation project in its tracks, compromising hydraulic containment and causing migration of the plume. Reasonably, the RWQCB did enroll the discharge and, also reasonably, the City did not appeal the RWQCB's decision. The RWQCB should not entertain newly devised City conditions which condition continuation of the discharge on the extraction of steep payments from Kinder Morgan and which would delay critical groundwater remediation, on the strength of unsupported and vague technical arguments.

The City's list of demands cannot legally be imposed by the RWQCB under its authority to issue waste discharge requirements. Under Water Code Section 13263, the RWQCB is authorized to prescribe specific types of requirements, namely requirements "as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge ... in relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made, or proposed." Other than its request concerning TDS, which the RWQCB expressly omitted from the scope of the comments it would accept, the conditions urged by the City do not pertain to the nature of the discharge.

II. Water Code Section 13304 does not Support Requiring Kinder Morgan to Pay for Groundwater it Extracts

The City cites Water Code Section 13304(a) as support for its assertion that the RWQCB should require Kinder Morgan to compensate the City for water removed from the aquifer during remediation efforts. This is clearly an effort to enmesh the RWQCB in the City's attempt to seek damages from Kinder Morgan, which the City is pursuing in litigation in another forum. The RWQCB has no authority to award damages. (*People of California v. Kinder Morgan Energy Partners, L.P.*, (S.D. Cal., 2008) 569 F.Supp.2d 1073, 1081 ("the Water Boards have neither authority nor jurisdiction to award damages to injured parties").)

manner as a private party when the elements requisite to such an estoppel against the private party are present and, the injustice that would result from the failure to uphold an estoppel is of sufficient dimension to justify any effect upon public interest or policy that would result from the raising of an estoppel. *Lentz v. McMahon* (1989) 49 Cal.3d 393, 400.

An NPDES permitting proceeding obviously provides no basis for asserting rights to payment for water. The City's request under Section 13304 would require amendment of the CAO, which is outside the scope of the current proceeding.

In addition, as noted in the ARCADIS Technical Letter responding to the City's comments, the CAO already addresses replacement water service, calling for action only if water were already being pumped by the City to produce water service. Section 13304 provides no basis to go further than the CAO's existing conditions. Under California Water Code section 13304(a), the RWQCB "may require the provision of, or payment for, *uninterrupted replacement water service*, which may include wellhead treatment, to each affected public water supplier or private well owner." (Emphasis added.) This language was added to Section 13304 in order to clarify the authority of Regional Boards to require alternative water supplies pursuant to a cleanup. (*See In The Matter of the Petitions of Olin Corporation and Standard Fusee, Incorporated*, (May 19, 2005) 2005 WL 5166379, at 1 ("*Olin*").) If replacement water is ordered by the RWQCB it "shall have comparable quality *to that pumped by the public water system ... prior to the discharge of waste.*" (*See* Wat. Code §13304(f), see also *Olin*, supra, 2005 WL 5166379 at 5 (ordering discharger to supply interim uninterrupted replacement water service (i.e., bottled water or equivalent), in accordance with California Water Code Section 13304 until long term uninterrupted water service is restored).) There has been no City water service from the aquifer, and thus no interruption and no basis for replacement of water service. Thus, Section 13304 provides no basis for ordering compensation to the City.

The RWQCB is not the forum to adjudicate water rights. However, for the RWQCB's general information, we provide a brief response to the City's assertion that the remediation project is somehow taking water in the Mission Valley Aquifer owned by the City. It is clear under California law that the City does not own the groundwater; its reference to groundwater as "its water" is inappropriate. Water rights in California are property rights allowing the *use* of water, not awarding ownership of the water. (*See* California Water Code §100, §102.)² The City is statutorily prohibited from preventing the use of water by others. (*See* California Water Code §106.5 (no municipality shall "prevent the appropriation and application of water in excess of its reasonable and existing needs to useful purposes by others").) Regardless, the RWQCB need not, and cannot, adjudicate water rights disputes in either an NPDES or CAO proceeding.

There is simply no basis for the RWQCB to act on the City's request for payment by Kinder Morgan for water. The RWQCB should promptly proceed to approve Kinder Morgan's request for amendment of its General Permit enrollment, in order to avoid delays that will jeopardize the Mission Valley Terminal's remediation project and the public interest.

² The City asserts Pueblo rights to use the groundwater. Pueblo rights are also fundamentally use-base rights. "No one has the right to more water than is reasonably necessary for the beneficial use to be served." *City of Los Angeles v. City of Glendale* (1943) 23 Cal.2d 68, 74-75. Pueblo rights are measured by the present need of the City "leaving the water accessible to others until such time as the city needs it." *Id.*

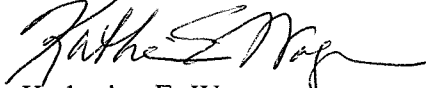
III. Conclusion

Overall the City's comments offer no new technical information. The City asserts a right to condition the proposed flow increases to Murphy Canyon Creek without any legal basis, and without providing any technical justifications for the conditions. The City argues that Kinder Morgan has insufficiently supported its request to the RWQCB, but nowhere does the City cite to specific deficiencies in the data already before the RWQCB. Instead, the City generally complains that existing data has not satisfied their concerns. As addressed in the ARCADIS letter accompanying these comments, Kinder Morgan has provided ample support for the proposed increases which will allow for the advancement of the remediation efforts.

Thank you for the opportunity to provide these comments. If you have any questions on these issues, we will be glad to discuss them further.

Very Truly Yours,

DOWNEY BRAND LLP



Katharine E. Wagner

KEW:rdt

Cc: Scott Martin, KMEP
Nancy Van Burgel, KMEP

1199375.3



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www.arcadis-us.com

Mr. Ben Neill
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

ENVIRONMENT

Subject:

Groundwater Modeling in Support of the Request to Increase Daily Average Discharge Rate under Order No. R9-2008-0002, NPDES Permit No. CAG919002; Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California (TSMC: 40-0054)

Date:
November 16, 2011

Dear Mr. Neill:

Contact:
Rick Ahlers

ARCADIS U.S. Inc. (ARCADIS) has prepared this technical memorandum for the Mission Valley Terminal, located at 9950 and 9966 San Diego Mission Road, San Diego, California, on behalf of SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. This memorandum summarizes groundwater modeling performed in support of the proposed increase in the daily average discharge rate from the remedial extraction system currently operating in the on- and off-Terminal areas for the Mission Valley Terminal in San Diego, California (the Site). This increase in the average daily discharge rate is requested to allow for additional groundwater extraction that will accelerate cleanup of groundwater to meet the compliance criteria set forth in Directive No. 3 of Addendum No. 5 to Cleanup and Abatement Order 92-01, issued by the California Regional Water Quality Control Board, San Diego Region (RWQCB) ahead of the December 31, 2013 cleanup deadline. It is anticipated that this increased discharge rate will only be necessary until December 31, 2013, after which the average discharge is expected to decline.

Phone:
760.214.4768

Email:
rick.ahlers@arcadis-us.com

Our ref:
CM010143.0078

The groundwater flow and transport model was originally developed using the finite element DYN groundwater flow and transport simulation code (CDM 1999; LFR 2004a, 2004b). The original model, created by Camp Dresser & McKee (CDM), was updated and re-calibrated twice by LFR Levine Fricke (LFR; now ARCADIS) Details regarding the earlier model construction, development, calibration, remedial design development, and future predictions can be found in the above-referenced modeling documentation reports.

Imagine the result

The model was used to evaluate locations and proposed pumping rates for existing and more recently installed groundwater extraction wells, and to predict dissolved-phase concentrations of MTBE and TBA over time in the downgradient off-Terminal areas. The relevant groundwater cleanup goals were established for the Site by the Off-Terminal Corrective Action plan (LFR 2005), in compliance with Addendum No. 5, to meet both primary and secondary maximum contaminant levels as well as the DHS health-based advisory level for tertiary butyl alcohol (TBA).

A report describing the revisions, calibration and application of the groundwater model will be submitted to the RWQCB no later than December 15, 2011. The recent updates to the groundwater model included incorporation of additional data (soil boring logs, groundwater elevation measurements, hydraulic testing, and additional contaminant concentrations obtained since the last model update in 2004) into the existing geologic model, updates to model hydraulic properties, and model boundary conditions. Additionally, in order to distribute the model as broadly as necessary in a format that allows for detailed external review and evaluation, the original DYN model was converted to the public-domain flow and transport simulation codes MODFLOW-2000 (McDonald and Harbaugh 1988; Harbaugh et al. 2000) and MT3DMS (Zheng and Wang 1998). The updated and converted model was re-calibrated with groundwater elevation and contaminant concentration data up through May 2010. Details regarding the conversion to MODFLOW, additional modifications to the model boundary conditions and hydraulic properties, flow and transport model calibration, model validation and sensitivity analysis, and results of future predictions of the attainment of cleanup goals will be found in the groundwater model update report.

This memo gives a brief description of how the model was used to evaluate and predict the effectiveness of the current extraction well configuration and allocation of pumping to meet the off-Terminal, distal plume cleanup goals for groundwater by the 2013 deadline. It also explains how results of that evaluation led to additional extraction scenarios (additional wells and a greater volume of total pumping), and provides the rationale for the proposed increase in the current extraction system capacity, which is necessary to provide an acceptable degree of confidence in meeting the cleanup goals and objectives.

Representation of Future Hydrologic Conditions

The calibrated model was extended approximately 3.5 years into the future (from May 2010 to December 31, 2013) to evaluate future predictions of recovery well

capture and future predictions of the attainment of groundwater cleanup goals. To represent the potential range in future hydrologic and climatic conditions in the prediction of future plume migration and remedial system operation/effectiveness, three future hydrologic scenarios were considered:

- Average Conditions – each year includes a dry season based on an assumed average dry-season condition and a wet season based on average precipitation and streamflow conditions.
- Maximum Wet Conditions – each year includes the assumed average dry condition and a wet season based on a prediction of the most wet, or “wettest wet season” precipitation and streamflow conditions.
- Minimum Wet Conditions – each year includes the assumed average dry condition and a wet season based on a prediction of the least wet, or “driest wet season” precipitation and streamflow conditions.

Details regarding how boundary conditions were established to simulate the three hydrologic scenarios will be provided in the groundwater model update report.

Representation of the Dissolved-Phase Distal Plume for Future Predictions

Figure 1 shows the initial plume conditions at the start of the future prediction simulations. These initial future conditions were used in each of the future hydrologic scenarios and represent the distal dissolved phase plume simulated as a “lumped”, or surrogate constituent “MTBE plus TBA” plume. The surrogate represents the combined masses of MTBE and TBA on a molar-equivalent basis. The molar-equivalent concentration of TBA is 0.84 percent of the MTBE concentration. In other words, 1 kilogram (kg) of MTBE has the same number of molecules as 0.84 kg of TBA, or equivalently, 100 µg/L of MTBE may transform (degrade) into 84 µg/L of TBA.

The surrogate approach was chosen based on observations of significant spatial and temporal variations in TBA degradation, and on the observations of a more uniform total bulk attenuation of MTBE plus TBA plume mass presented in the quarterly reports. This approach reduces the degrees of freedom in the uncertainty associated with the complex biogeochemical conditions observed within the plume footprint and provides a simplistic, yet conservative simulation of a plume undergoing average bulk attenuation mechanisms. This approach has been used in many fate and

transport models for chlorinated solvents and other organic chemical mixtures that undergo similar attenuation mechanisms (Heermann and Powers 1998; U.S. Environmental Protection Agency [USEPA] 1996). Recently, the USEPA conducted a study to evaluate using lumped or grouped chemicals for modeling the fate and transport of organic mixtures (USEPA Grant number R829355). Results of that study indicate this approach is desirable for similar constituents because it simplifies the numerical modeling by reducing the number of calibration parameters without a significant loss of accuracy. The rationale for and approach to using a surrogate plume will be described in greater detail in the groundwater model update report.

Continuous monitoring of groundwater elevations and continued analysis of the effectiveness of the LNAPL dewatering system and hydraulic capture evaluations indicate the distal plume has been effectively cut-off (detached) from its former off-Terminal LNAPL zone source. Therefore, for the purposes of evaluating the attainment of cleanup goals in the off-Terminal area by the December 31, 2013 deadline, the model simulates only the transport of the dissolved-phase distal plume downgradient of the LNAPL area dewatering wells (RW-3A, RW-5A, and RW-7A) within the vicinity of the stadium parking lot. This is also reflected in Figure 1.

The concentrations and concentration distributions for the observed plume from the quarterly monitoring event conducted in May 2010 (second quarter 2010) were used to define the initial concentrations for the predictive simulations. In addition, based on the more recent observations of TBA concentrations in the recovery wells located within the plume core, and to be conservative in the predictions of plume cleanup, the future simulations assume that no further degradation of MTBE or TBA occurs.

The objective of the predictive transport simulations was to evaluate whether the current configuration of the distal extraction system and the additional extraction that would be obtained with the proposed system expansion would achieve the proposed cleanup goals by the end of 2013. The proposed cleanup goals for MTBE and TBA are 5 micrograms per liter ($\mu\text{g/L}$) and 12 $\mu\text{g/L}$, respectively. Since November 2009, most of the MTBE present in the distal plume has converted to TBA and is present only at relatively low concentrations, as regularly documented in the quarterly Groundwater Monitoring and Remedial Progress Reports for the Site. Because the transport model uses a combined MTBE plus TBA surrogate, the goal against which the model results are evaluated is the more stringent MTBE goal of 5 $\mu\text{g/L}$, equivalent to reaching surrogate concentrations of less than 4.2 $\mu\text{g/L}$ by the end of 2013.

Simulated Extraction System Pumping

Groundwater extraction rates for the future predictions were assigned based on the assumption that the planned expansion of the groundwater extraction system will be implemented in November 2011. The locations of additional wells and the assumed total system extraction capacity of approximately 850 gpm are consistent with the information provided in the National Pollution Discharge Elimination System (NPDES) expansion proposal (ARCADIS 2010) and well installation work plan (ARCADIS 2011). Figure 2 shows the locations of the extraction wells currently in operation, as well as the more recently installed wells that are directly related to the discharge permit increase request.

To assign individual extraction well future pumping rates, observations of existing individual extraction well capacities and well and system duty cycles were considered, with the resulting assumption that a long-term average extraction rate of approximately 90 percent of the total expanded system capacity could be achieved. Rates for individual wells were allocated between containment wells at the mouth of Murphy Canyon (RW-35 through RW-37), the off-Terminal LNAPL dewatering area (RW-3/3A through RW-7/7A, RW-48, and RW-56), the expanded off-Terminal dewatering area (recovery wells RW-107 and RW-108), and what would be required for distal well extraction (RW-49 through RW-51, and RW-99 through RW-101) to maximize extraction at the downgradient edge of the distal plume in support of meeting the cleanup goals and objectives. Additionally, the remedial system expansion includes the addition of six new recovery wells (RW-109 through RW-114) installed at locations in between the current distal wells (as discussed below and as shown in Figure 2) (ARCADIS 2011).

Table 1 presents the total recovery well extraction rates for the end of the calibration period (May 2010) and future projections of flow based on assumptions regarding remedial system expansions outlined above. As shown in the table, the actual system extraction was specified from May 2010 to May 2011, and then projected from May 2011 through November 2011, based on plans at that time to re-allocate pumping from specific areas to enhance remediation at the distal end of the plume. At the time the simulations were conducted in May 2011, it was assumed that the proposed system discharge permit would be approved in November 2011.

Table 1 also includes the projected rates based on the recently submitted discharge permit increase. Under this scenario, the future simulations assume a total of 763 gpm will be the long-term average total pumping that can be obtained, with 437 gpm

allocated to the 12 most distal recovery wells (RW-49 through RW-51, RW-99 through RW-101, and RW-109 through RW-114). Results of these pumping allocations are discussed in the following section.

Prior to submittal of the recent discharge increase proposal, the total extraction assigned to the remaining time period in the future simulations (November 2011 through December 31, 2013) was approximately 550 gpm. Given the assumption that 90 percent of that total system flow could be achieved as a long term system average, the total predicted rate was approximately 495 gpm. Under this scenario, all of the difference in total extraction rate comes from the distal wells, including newly installed wells (RW-109 through RW-114), i.e., without the proposed permitted discharge, extraction from the distal plume would be reduced by more than 50 percent.

Results of the Predictive Simulations

As indicated above, prior to the recently proposed discharge permit expansion, a total projected extraction system pumping rate of approximately 495 gpm was allocated among existing extraction wells, with a focus on allocating as much pumping as possible to the distal wells in order to provide the most optimized projected cleanup. However, results of these preliminary simulations indicated the potential that a few localized areas of the simulated plume that may not reach the cleanup goals by the December 31, 2013 deadline. Given these results, additional simulations were performed using the increased pumping total of 763 gpm to assess the number of wells, well locations, and rates that would provide a high degree of confidence in meeting the remedial goals ahead of schedule to account for uncertainty in model predictions.

Figure 3 shows the simulated plume in the deep alluvium at the time that both remedial goals are met (i.e., 12 ug/L and 4.2 ug/L surrogate plume concentrations). As shown in the figure, the TBA goal of 12 ug/L is achieved approximately 14 months after the projected increase to a total system extraction of 763 gpm (January 2013). Likewise, the figure also shows the simulated plume in the deep alluvium when the effective MTBE goal of 4.2 ug/L is achieved, which occurs approximately 19 months after the projected increase to a total system extraction of 763 gpm (June 2013). Given that the model predicts attainment of these cleanup goals approximately 6 months before the CAO required date, we are confident that the proposed system expansion will achieve the remedial goals prior to December 31, 2013. Even though the model is well calibrated and conservatively assumes no future degradation of the

surrogate plume, some degree of uncertainty still exists, as with any predictive model. Therefore, given the inherent uncertainties, it is important that the system flow expansion be implemented as soon as possible.

If you have any questions about this submittal, please contact me.

Sincerely,

ARCADIS



C. Fredrik Ahlers, P.E.
Principal Civil Engineer
Project Technical Director
California Professional Engineer # C-66471

Attachments

Copies:

Scott Martin, KMEP

Nancy Van Burgel, KMEP

References

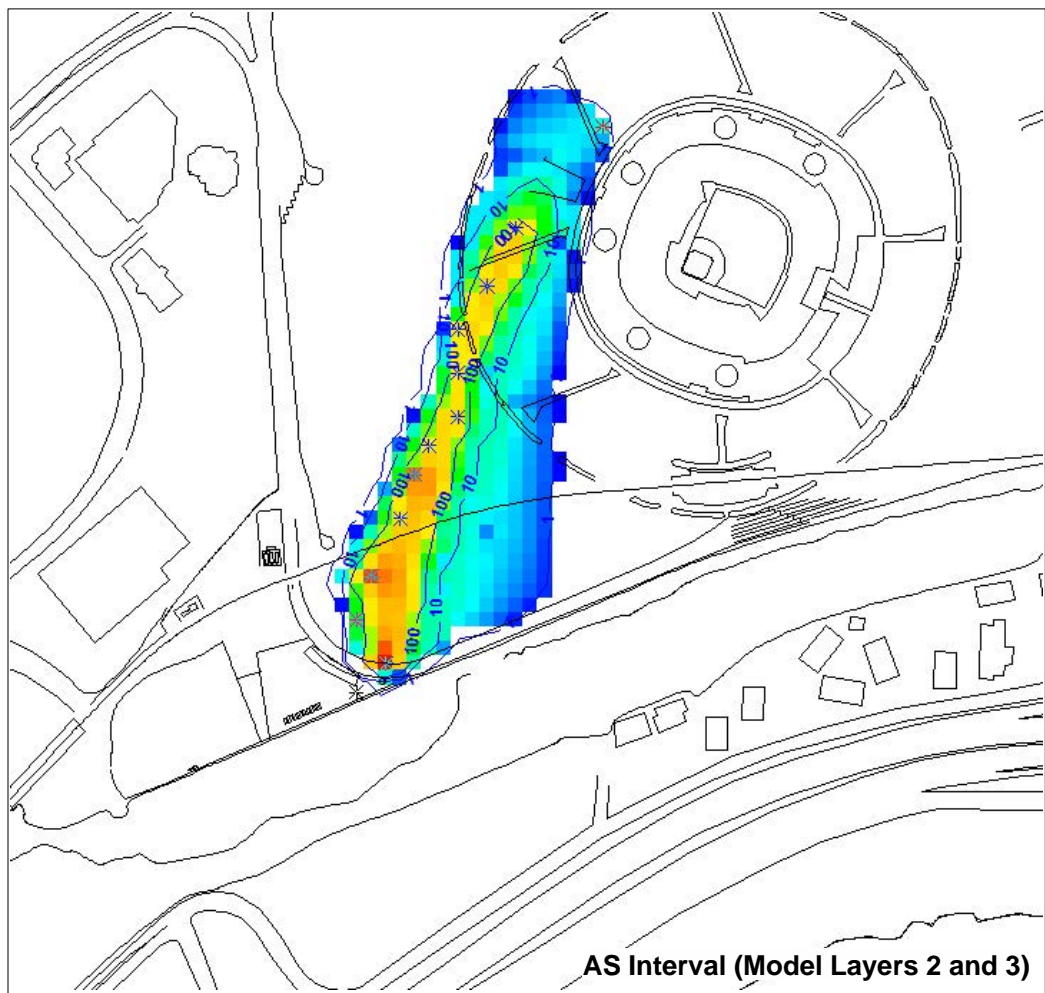
- ARCADIS. 2010. *Request to Increase Average Discharge Rate under Order No. R9-2008-0002, NPDES Permit No. CAG919002; Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California.* August 24.
- ARCADIS 2011. *Work Plan for Installation of Groundwater Extraction Wells in Distal Off-Terminal Plume Area, Mission Valley Terminal, San Diego, California.* January 27.
- Camp Dresser & McKee (CDM). 1999. *Technical Memorandum No. 5. Groundwater Modeling Documentation.* SFPP, L.P., Mission Valley Terminal Remediation System Focused Feasibility Analysis and Implementation.
- Harbaugh, Arlen W., Edward R. Banta, Mary C. Hill, and Michael G. McDonald. 2000. *MODFLOW-2000, The U.S. Geological Survey Modular Ground-Water Model—User Guide to Modularization Concepts and the Ground-Water Flow Process.* U.S. Geological Survey Open-File Report 00-92, Reston, Virginia.
- Heermann, Stephen E. and Susan E. Powers. 1998. Modeling the partitioning of BTEX in water-reformulated gasoline systems containing ethanol. *Journal of Contaminant Hydrology*, Volume 34, Issue 4, 15 November 1998. pp 315-341.
- LFR Levine Fricke (LFR). 2004a. *Final Summary Report, Time Schedule Order R9-2002-0042, Mission Valley Terminal, 9950 and 9966 San Diego Mission Road, San Diego, California.* January 30.
- LFR. 2004b. *Aquifer Testing and Design of a Property Boundary Barrier Report, Mission Valley Terminal, San Diego, California.* December 3.
- McDonald, Michael G. and Arlen W. Harbaugh. 1988. A Modular Three-Dimensional Finite-Difference Ground-Water Flow Model. *Techniques of Water-Resources Investigations of the United States Geological Survey*, Chapter A1.
- U.S. Environmental Protection Agency (USEPA). 1996. *BIOSCREEN Natural Attenuation Decision Support System, Version 1.3.* EPA/600/R-96/087. August.
- Zheng, Chunmiao and P. Patrick Wang. 1998. *MT3DMS: A modular three-dimensional multispecies transport model*, Strategic Environmental Research and Development Program (SERDP), United States Army Corps of Engineers (USACE). June.

Table 1. Recovery Well System Extraction Rates Assigned for Future Predictions
Memorandum re: Groundwater Modeling in Support of the Request to Increase Daily Average Discharge Rate
Mission Valley Terminal, San Diego, California

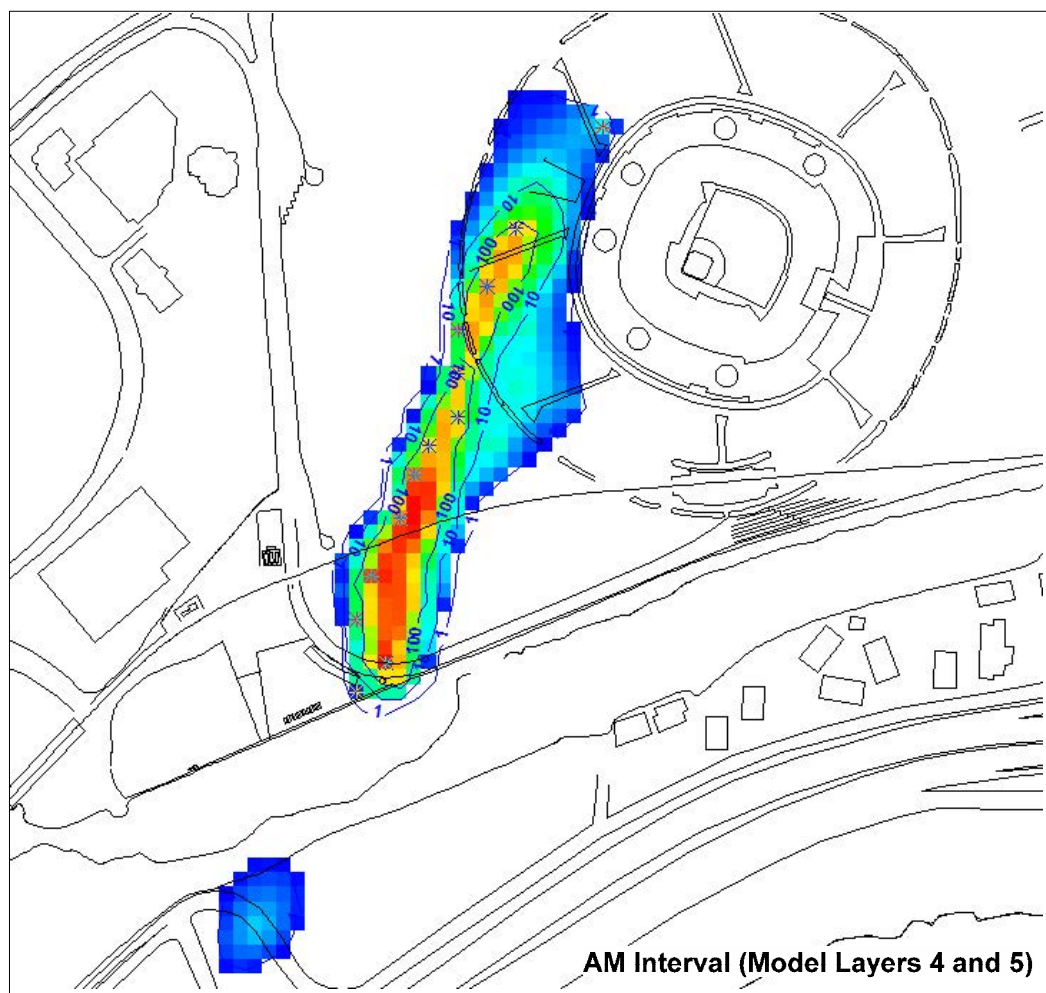
Well Groups	Recent Rate - to May 2011 (gpm) ¹	Projected Rate - May 2011 to November 2011 (gpm) ²	Original Projected Rate - November 2011 to December 2013 (gpm) ³	Final Projected Rate - November 2011 to December 2013 (gpm) ⁴
Hydraulic Containment (RW-35 through RW-37)	99	92	92	92
Off-Terminal Dewatering (RW-5A, -7A, -48, and -56)	128	113	113	113
Off-Terminal Northwest Dewatering (RW-3A, RW-107, and RW-10)	94	85	126	126
Distal Well Extraction (RW-8, RW-9, RW-49 through RW-51, RW-99 through RW-101, RW-109 through RW-114)	45	54	165	433
Total Extraction (gpm) ⁵:	367	344	495	763

Notes:

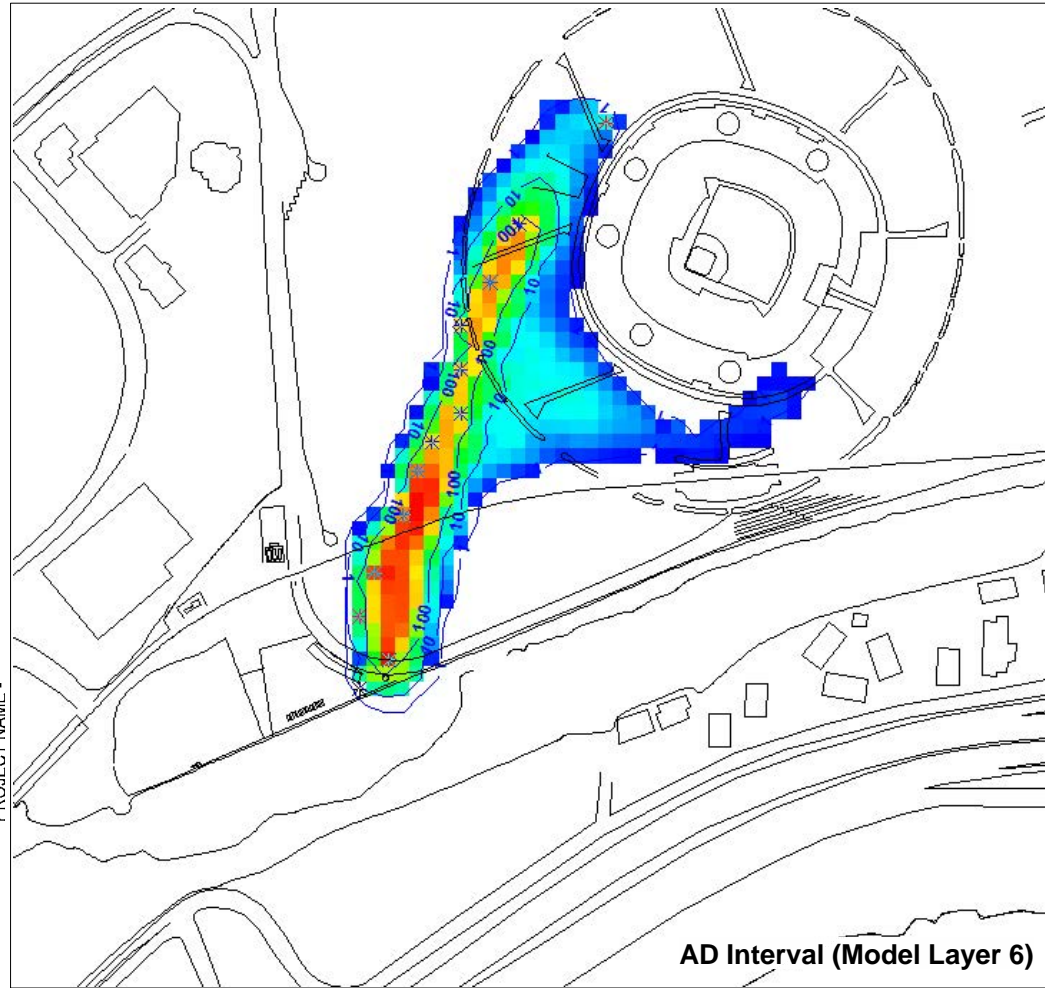
- ¹ Recent extraction rates refer to those in effect during model calibration; rates are based on Site operations information.
 - ² Future projected extraction rates assumed at the time the model calibration was completed.
 - ³ Future projected extraction rates based on permitted total system discharge at time predictions were developed.
 - ⁴ Future projected extraction rates based on the currently proposed increase in the total system discharge permit.
 - ⁵ Both future projected extraction rate scenarios are based on an assumed duty cycle of approximately 90 percent.
- gpm = gallons per minute



AS Interval (Model Layers 2 and 3)

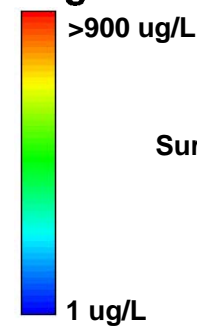


AM Interval (Model Layers 4 and 5)



AD Interval (Model Layer 6)

Legend



Surrogate Concentration Color Flood Scale

- 10 — Surrogate Concentration Contour, micrograms per liter (ug/L)
- * Recovery Well (RW)

Notes:

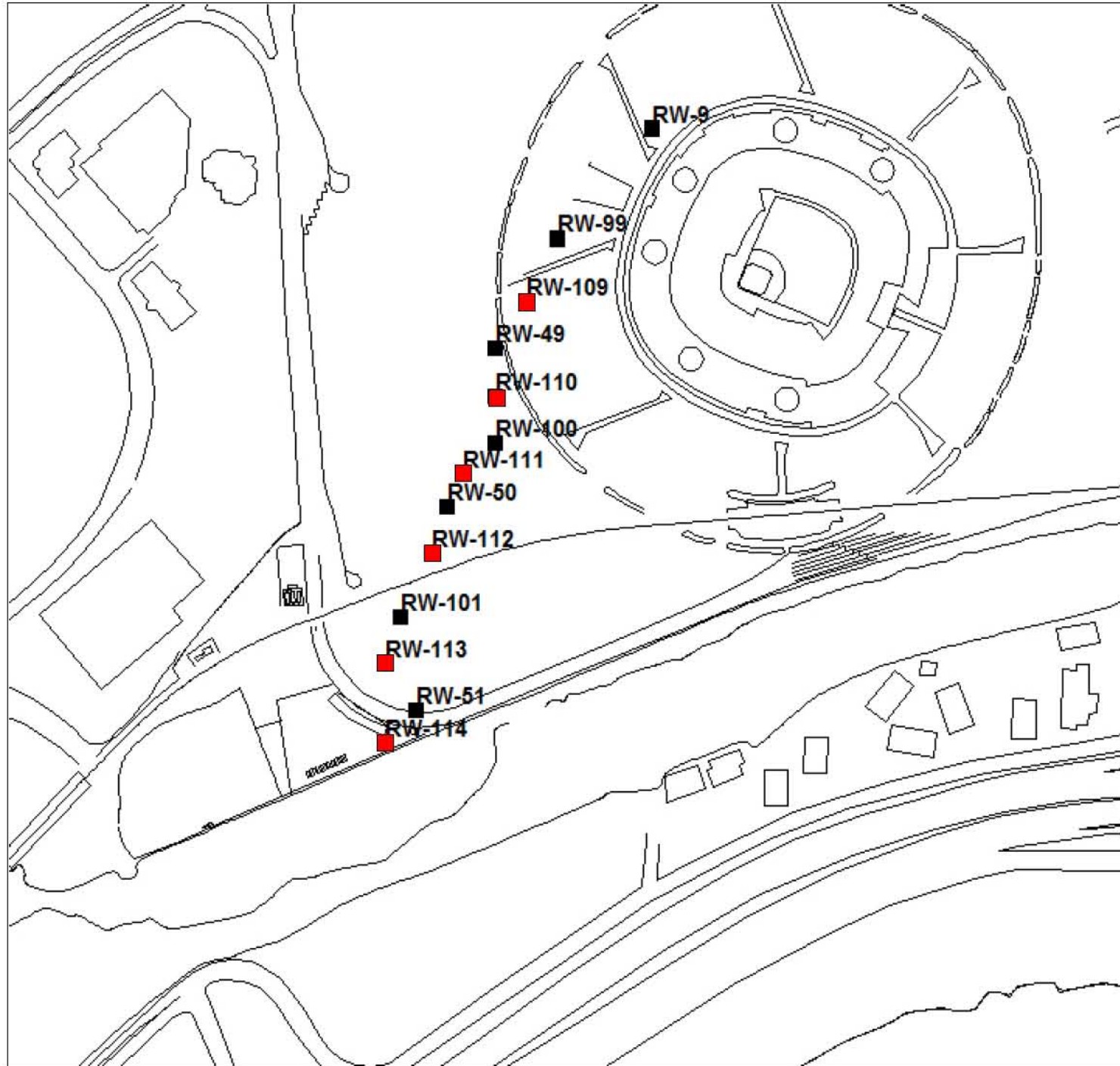
1. Initial surrogate concentrations are based on the observed TBA and MTBE concentrations in May 2010 (as presented in the 2Q2010 Quarterly Report).
2. The surrogate plume core concentrations were assigned values greater than the observed concentrations in recovery wells (located within the plume core) to account for the effects of wellhead dilution.

MISSION VALLEY TERMINAL
SAN DIEGO, CALIFORNIA
GROUNDWATER MODELING IN SUPPORT OF
SYSTEM DISCHARGE PERMIT INCREASE

SURROGATE PLUME
INITIAL CONCENTRATIONS



PROJECT NAME



Legend

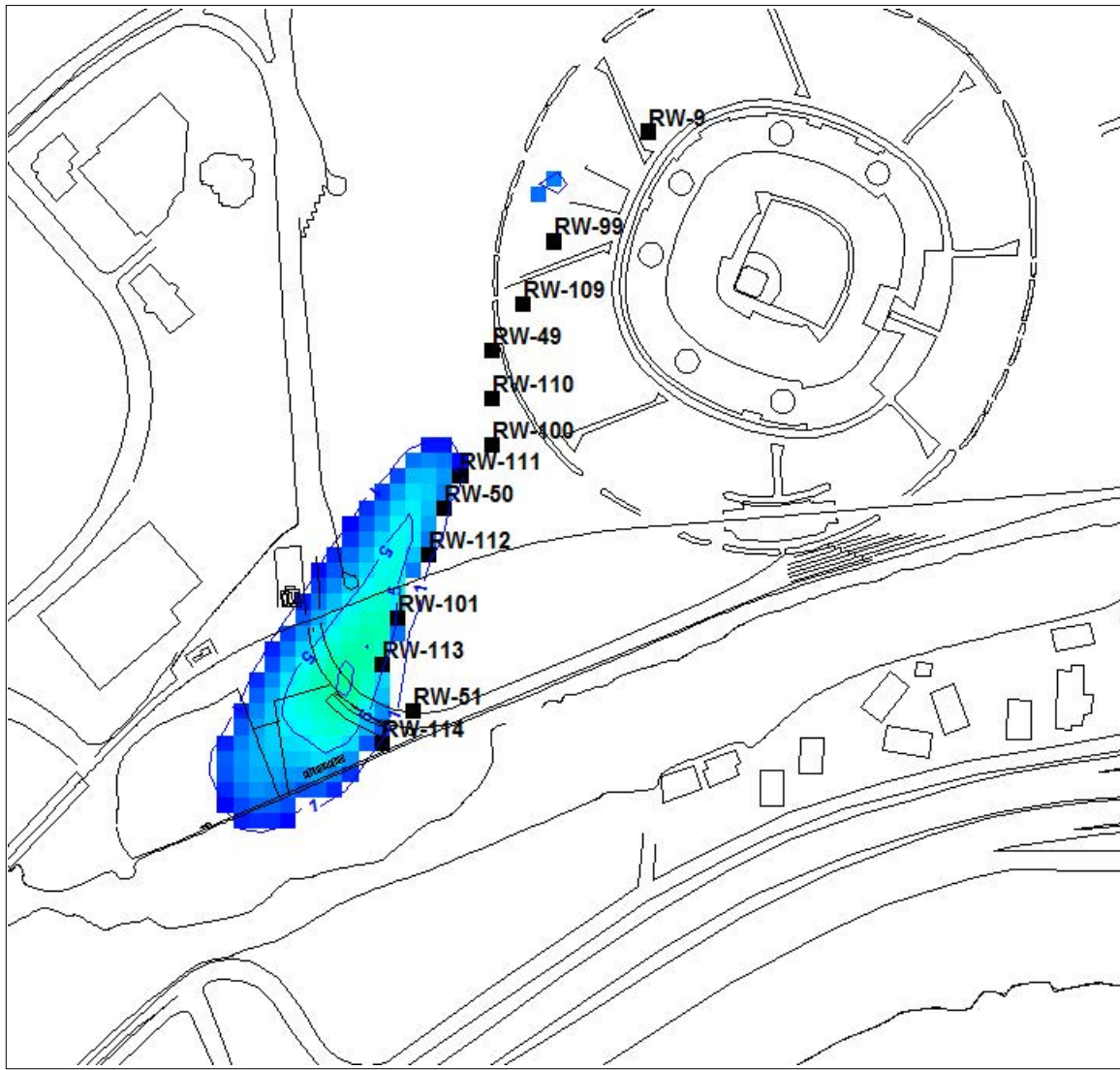
- RW-99 Existing Distal Recovery Well
- RW-114 New (Proposed) Distal Recovery Well

MISSION VALLEY TERMINAL
 SAN DIEGO, CALIFORNIA
 GROUNDWATER MODELING IN SUPPORT OF
 SYSTEM DISCHARGE PERMIT INCREASE

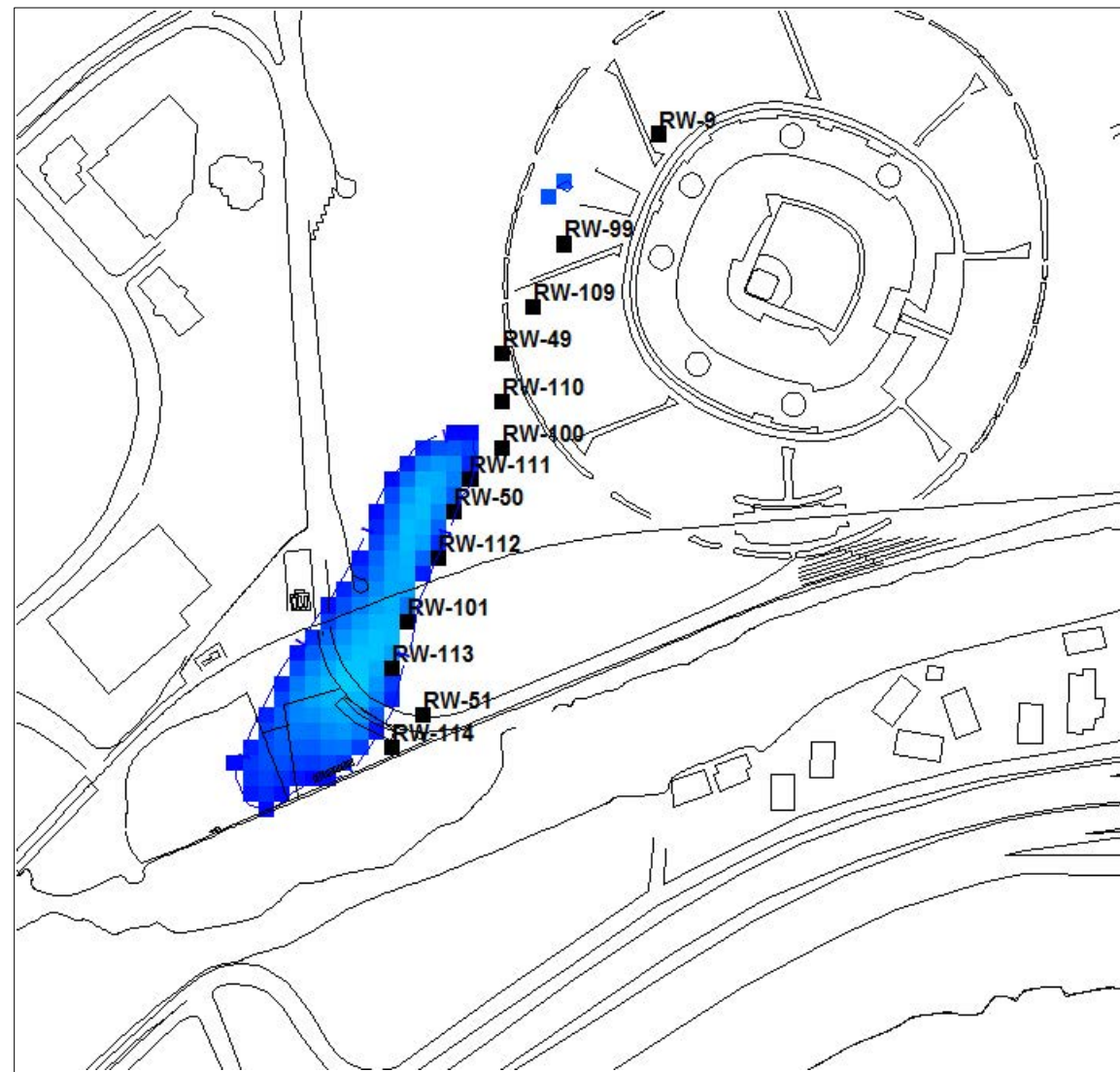
DISTAL RECOVERY WELLS



PROJECT NAME

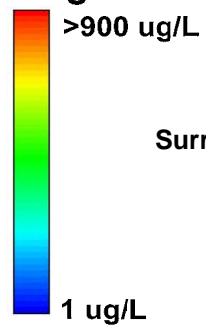


January 2013 (14 Months After System Expansion)
Surrogate Concentrations <12 ug/L



June 2013 (19 Months After System Expansion)
Surrogate Concentrations < 4.2 ug/L

Legend



Surrogate Concentration Color Flood Scale

—5— Surrogate Concentration Contour, micrograms per liter (ug/L)

■ RW-99 Recovery Well (RW)

MISSION VALLEY TERMINAL
SAN DIEGO, CALIFORNIA
GROUNDWATER MODELING IN SUPPORT OF
SYSTEM DISCHARGE PERMIT INCREASE

PREDICTED RESULTS - TIME AT WHICH
CLEANUP GOALS ARE ATTAINED



FIGURE

3

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Attachment B1c, EO Report
Kinder Morgan, Mission Valley Terminal

THE CITY OF SAN DIEGO

November 30, 2011

Via Email to dgibson@waterboards.ca.gov and
Hand Delivery

Mr. Grant Destache,
Chairperson

Mr. Dave Gibson
Executive Officer,

San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Dear Mr.'s Destache and Gibson,

Subject: Request for Hearing on Matters Subject to Regulatory Oversight
Kinder Morgan Energy Partners, Mission Valley Terminal;
SL607392800:smcclain and CRU: 240988:bneil; WDID No: 9 000000506

As you know, the City of San Diego ("City") has taken an appeal to the State Water Resources Control Board ("SWRCB") on Decision R9-2011-0052 which set Total Dissolved Solids interim effluent limits for discharges to Murphy Canyon Creek. That appeal discusses the related and ripening issue of whether an Executive Officer can unilaterally permit the discharge of ever increasing amounts of water into the City's storm water discharge system, for which the City is a co-permittee, as a result of the treatment technology a discharger selected to remediate its historic release of petroleum products from the Mission Valley Terminal. The City recently presented a compromise proposal to allow for increased flows by way of letter to Mr. Gibson. Last week the City was copied on Kinder Morgan's response to the City's suggestions, a response which included legal briefs and technical support strongly rejecting the City's suggested approach. It is obvious from a comparison of the points raised by the City and the responses received from Kinder Morgan, its counsel at Downey Brand, and Arcadis, the consulting firm acting on their behalf, that there are significant variances in both fact and conclusion presented to the Water Board on these issues.

It is not appropriate to allow the record to stand so burdened with contradictory assertions. Some clarity needs to be applied to the charges and counter charges that are being made. The City is not merely a simple "land owner" in this dispute, but the representative of its many residents, who have direct financial and environmental interest in the discharger's activities. In light of the disparity between the factual, technical and legal assertions being made by Kinder Morgan and its representatives, the City believes it has both the legal right and obligation to request that a hearing be held before the Water Board so that these matters can be settled and resolved with finality, and the tedious and frustrating process of innuendo and half-truths, which have often clouded this significant cleanup effort, can be ended.

The City is keenly aware that the Water Board is in the last stages of a significant hearing concerning matters related to a cleanup of the sediments of the San Diego Bay, and that the matter has come to encompass a very large amount of the Water Board's resources over time. The hearing that is required as a result of the present disagreement between the City and Kinder Morgan would not be anything similar in terms of the investment of time and resources. The Water Board would not have to field a team to make scientific proposals for challenge by multiple stakeholders. In this instance, the Water Board would merely provide a forum for the interested parties to present their arguments and differing views, and then make administrative findings that can be used to guide the remaining years of remedial activity expected as a result of the Mission Valley Terminal release. If organized to focus on the areas of disagreement, the hearing could be concluded in one day.

The City understood the comments from Mr. Gibson at the hearing preceding R9-2011-0052 to mean that he intends to issue a decision on Kinder Morgan's flow increase request, but that he wished to first confer with the City. Mr. Gibson did have a preliminary meeting with City representatives on October 4, 2011; however, a follow up meeting was cancelled by Water Board staff in lieu of submission of written comments which, as stated above, are in conflict. As a precursor to a hearing, and toward possible settlement of contested issues and/or the delineation of those issues which cannot be settled, the City is still willing to meet with Mr. Gibson and Kinder Morgan. If after such a meeting the parties still had areas of disagreement, the City would continue to contend that the Water Board should hear those issues and render its own decision.

The City has often voiced the belief that there has never been (and still is not) a clear and thoughtful review of the facts and science behind the role that re-injection could play both in helping the discharger meet its regulatory requirements and avoid wasting San Diego's water. With Kinder Morgan's recent response to the Water Board, the list of issues over which neither the facts nor their interpretation is agreed upon has grown. On issues including Kinder Morgan's assertion that the Water Board has no authority to require them to supply "replacement water" for that which they are using, to issues related to the linkage between the discharge of the treated water and impacts on both the creek and adjacent developed property, there is a disconnect between the facts and that which is presented in writing. These are but several of the issues that now seem

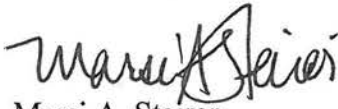
Page 3
November 30, 2011
Mr.'s Destache and Gibson

appropriately poised for a thoughtful reexamination in a fair and deliberate hearing. This may be the only forum in which the stakeholders can have adequate opportunities to examine the assertions of each other for their factual basis and scientific strength.

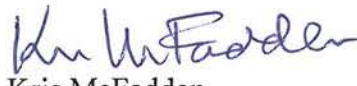
The cleanup of the release from the Mission Valley Terminal is far from over, and will likely continue throughout the decade, even after the current CAO regarding the "off terminal" properties has run its course. No entity or institution benefits from avoiding a direct and thoughtful review of the present factual disputes. Whatever short term costs there are in such a hearing, they will be far overmatched in long term implications for the region and its residents.

Please advise us when you are prepared to call the stakeholders together to outline a date and process for an administrative hearing on these critically important issues.

Sincerely,



Marsi A. Steirer
Deputy Director
Public Utilities Department



Kris McFadden
Deputy Director
Transportation & Storm Water Department

cc: (via email)
Julie Chan, RWQCB
John Anderson, RWQCB
Craig Carlisle, RWQCB
Sean McClain, RWQCB
Dr. Paul Johnson
Dr. Margaret Eggers
Laura Drabandt, Esq., RWQCB
Scott Martin, Kinder Morgan
Rick Ahlers, Arcadis
Roger S. Bailey, City of San Diego
Alex Ruiz, City of San Diego
Almis Udrys, City of San Diego
Greg Cross, City of San Diego
Dr. Richard Jackson, Geofirma
Rob Sengebrush, INTERA
Richard Opper, Counsel for City of San Diego
Fritz Ortlieb, Deputy City Attorney
Grace Lowenberg, Deputy City Attorney



December 7, 2011

Mr. David Gibson
Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123

Subject: Response to City of San Diego Request for Hearing on Matters Subject to Regulatory Oversight, SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P. (“Kinder Morgan”), Mission Valley Terminal Remediation Dewatering Project, San Diego, California (TSMC:40 0054)

Dear Mr. Gibson:

We have reviewed the letter dated November 30, 2011, from Marsi Steirer and Kris McFadden of the City of San Diego, which requests a hearing in connection with the Mission Valley Terminal Remediation Dewatering Project (the “City Letter”). I am writing to express our concerns over any further unjustified delay in this important remediation project.

The decision before you is Kinder Morgan’s August 2010 request for amendment of its enrollment under NPDES Permit No. CAG919002 (“General Permit”), to increase the rate of groundwater extraction in support of groundwater remediation. Given the looming December 2013 deadline under the Cleanup and Abatement Order for the project, Kinder Morgan has proceeded in good faith to construct the necessary facilities to implement the increased rate of extraction. Delays in this approval continue to jeopardize Kinder Morgan’s ability to comply with the December 2013 deadline in the Cleanup and Abatement Order, and to jeopardize timely cleanup.

The City Letter seeks to derail the procedure you established for concluding your consideration of Kinder Morgan’s request, and seeks to assume control of Regional Board proceedings for the City’s own purposes. Like the City’s earlier submission, the City Letter provides no additional useful information demonstrating negative impacts of the requested increase. It disregards the Board’s endorsement of your decision to act on the request for amendment in your capacity as Executive Officer. And it disregards the opportunities for input you provided the City and Kinder Morgan in your efforts to schedule a meeting of all parties, and your subsequent decision to use detailed written submissions for such input.

As you requested in your letter of October 21, 2011, Kinder Morgan provided additional, detailed information to assist your decision. In contrast, the City, having failed to respond to your request

with useful information, and fully *sixteen months* after Kinder Morgan's application was filed,¹ now asks you to delay the remediation project and expend more valuable and limited Regional Board resources in a hearing designed to air "disagreements between the City and Kinder Morgan." Having attempted to confuse a relatively simple decision, the City now complains that "the list of issues over which neither the facts nor their interpretation is agreed upon has grown." This includes the obscure and groundless new legal claims raised for the first time by the City in July, including an assertion that the Regional Board should force Kinder Morgan to pay the City unspecified (but undoubtedly large) sums of money.

The Regional Board has already entertained numerous City submissions on Kinder Morgan's request for amendment of enrollment, for over more than a year. No hearing is required for you to act on our application. We ask that you bring this decision to an immediate conclusion.²

The only factual issue mentioned in the City Letter is one the City has raised repeatedly over several years, regarding the potential for re-injection of extracted groundwater.³ This issue has already been reviewed many times by the Regional Board. For example, the letter dated July 19, 2009 from Mr. Robertus to Marsi Steirer noted,

"Specifically, a thorough and exhaustive evaluation of the re-injection of treated groundwater has been done by Board staff. To continue re-evaluation with the same set of data would seem pointless."

In any event, the question of re-injection is tangential to your current decision. The only aspect of re-injection relevant to the current Regional Board decision is whether alternatives to disposal of the increased flows are addressed in Kinder Morgan's application for amendment to enrollment. We are all aware that re-injection was addressed in the application as well as numerous other times, as stated above. Certainly, this requires no new hearing.

The City's own consultants, Richard Jackson and Rob Sengebush, have already acknowledged the importance of the requested increase in groundwater extraction, stating the following in an April 1, 2011 report the City submitted to the Regional Board:

"Groundwater extraction wells are progressively removing dissolved gasoline components from the MVA and are likely to achieve cleanup by December 2013, provided they implement their

¹ Letter dated August 24, 2010 from Marcelo Garbiero, Arcadis, to Whitney Gorham, Regional Board, "Request to Increase Daily Average Discharge Rate under Order No. R9-2008-0002 NPDES Permit No. CAG919002."

² See, e.g., letter dated September 28, 2010, from Marsi Steirer to Brian Kelley regarding Kinder Morgan's request to increase daily average discharge rate; letter dated April 28, 2011 from Marsi Steirer to Sean McClain regarding Mission Valley Terminal remediation; letter dated July 26, 2011 from Marsi Steirer to Ben Neill regarding Tentative Order No. R9-2011-0052 to provide a Time Schedule Order; letter dated July 27, 2011 from Kris McFadden to Ben Neill regarding Tentative Order No. R9-2011-0052 to provide a Time Schedule Order; letter dated November 3, 2011 regarding Kinder Morgan Energy Partners proposed flow increase for its Mission Valley Terminal Remediation Dewatering Discharge.

³ See, e.g., the City's Petition for Review filed with the State Water Resources Control Board ("State Board") on October 9, 2009 over claimed inaction by the Regional Board in "failing to require Kinder Morgan to re-inject treated groundwater back into the aquifer." This petition was rejected by the State Board on October 1, 2009.

plans to increase groundwater extraction, after which time these wells will become available for the City's use.”⁴

“It appears from this analysis that the planned increase in groundwater extraction from the TBA plume will allow KMEP to meet the December 2013 deadline for cleanup.”⁵

Indeed, the City’s efforts appear designed to interfere with Kinder Morgan’s ability to meet its Cleanup and Abatement Order deadline for groundwater remediation, in order to further the City’s interests in its separate court action against Kinder Morgan. In the litigation, the City pursues damages for over \$300 million. Snarling the remediation in endless complication and delay appears designed to bolster the City’s claim in court that Kinder Morgan’s cleanup is inadequate. The Regional Board should not misdirect its valuable, limited resources by allowing itself to be drawn into the City’s separate, high-stakes litigation against Kinder Morgan.

The information needed for the Regional Board’s pending decision has been adequately addressed in existing correspondence, and a hearing would serve no purpose other than delay. We urge you to promptly act on the request for amendment to the enrollment under the General Permit.

Thank you for your attention and courtesy in the careful review of our application. Please address any questions in this matter to me at (303) 914-4634, at the address below, or by email at Nancy_VanBurgel@kindermorgan.com.

Sincerely,



Nancy Van Burgel
Assistant General Counsel

cc: Grant Destache, Chair, RWQCB
Ben Neill, RWQCB
Julie Chan, RWQCB
Scott Martin, KMEP
Rick Ahlers, ARCADIS
Marcelo Garbiero, ARCADIS
Steven Goldberg, Downey Brand LLP
Katharine Wagner, Downey Brand LLP
Grace Lowenberg, City of San Diego

⁴ *Remediation of the Mission Valley Aquifer*, Geofirma Engineering Ltd. & Intera Inc. at p. iii (April 1, 2011). This report was submitted to the Regional Board as an enclosure to the letter dated April 28, 2011 from Marsi Steirer to Sean McClain.

⁵ *Id.* at p. 87. Mr. Jackson made similar statements in his September 23, 2011 letter to Grace Lowenberg, enclosed with a letter dated November 10, 2011 from Marsi Stierer letter to David Gibson. *Status Report: Quarterly Report on Groundwater Remediation, Mission Valley Terminal, 2Q 2011*, Geofirma Engineering Ltd & Intera Inc., at 6, 8.

Attachment B5a

September 2011 - Summary of Public Sanitary Sewer Overflows in Region 9										
Responsible Agency	Collection System	Total Number of SSO locations	Total Vol of SSOs (gal)	Total Vol Recovered (gal)	Total Vol Reaching Surface Water	Percent Recovered	Percent Reaching Surface Water	Miles of Pressure Sewer	Miles of Gravity Sewer	Miles of Laterals
Category 1 SSO										
Del Mar City	City Of Del Mar CS	1	975	0	975	0	100	1.8	29	0
Eastern Municipal Water District	Temecula Valley RCS	1	2000	2000	0	100	0	27	557	0
La Mesa City	City Of La Mesa CS	1	200	200	0	100	0	0	155	0
Oceanside PWD	La Salina WWTP, Oceanside CS	1	225	200	0	88	0	35.6	439.7	0
San Diego City	San Diego City CS	2	2624670	931550	2624670	35	100	145	3002	2000
Santa Margarita Water Dist	Santa Margarita Water District CS	1	1050	1050	1050	100	100	12	600	165
Category 2 SSO										
Eastern Municipal Water District	Temecula Valley RCS	1	200	0	0	0	0	27	557	0
La Mesa City	City Of La Mesa CS	1	25	0	0	0	0	27	557	0
Laguna Beach City	City Of Laguna Beach CS	1	150	0	0	0	0	4.5	95	0
Oceanside PWD	La Salina WWTP, Oceanside Ofll CS	1	245	200	0	81	0	35.6	439.7	0
Padre Dam Municipal Water District	Padre Dam CS	2	105	105	0	100	0	5	165	0
Ramona MWD	Santa Maria CS	1	20	0	0	0	0	4	45	23
San Diego City	San Diego City CS	1	20	20	0	100	0	145	3002	2000
TOTALS		15	2629885	935325	2626695			469.5	9643.4	4188

CS = Collection System

Category 1 SSO = All discharges of sewage from a sanitary sewer system that exceed 1000 gallons, or result in a discharge to a surface water or discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

Category 2 SSO = All other discharges of sewage resulting from a failure in the sanitary sewer system

Attachment B5b

October 2011 - Summary of Public Sanitary Sewer Overflows in Region 9										
Responsible Agency	Collection System	Total Number of SSO locations	Total Vol of SSOs (gal)	Total Vol Recovered (gal)	Total Vol Reaching Surface Water	Percent Recovered	Percent Reaching Surface Water	Miles of Pressure Sewer	Miles of Gravity Sewer	Miles of Laterals
Category 1 SSO										
La Mesa City	City Of La Mesa CS	1	750	200	0	26	0	0	155	0
Marine Corps Base, Camp Pendleton	Usmc Base, Camp Pendleton CS	1	12000	0	12000	0	100	48.4	104	80
San Clemente City	City Of San Clemente CS	1	2350	1000	0	42	0	4	180	0
San Diego City	San Diego City CS	2	36000	20000	0	55	0	145	3002	2000
Santa Margarita Water Dist	Santa Margarita Water District CS	1	6600	0	0	0	0	12	600	165
Category 2 SSO										
El Cajon City	City Of El Cajon CS	1	60	0	0	0	0	0	195	0
Escondido City	Harrf Disch To San Elijo CS	1	114	114	0	100	0	10.7	370	0
Leucadia Wastewater District	Leucadia Wastewater District CS	1	120	20	0	16	0	16.67	200	0
Marine Corps Base, Camp Pendleton	Usmc Base, Camp Pendleton CS	1	25	0	0	0	0	48.4	104	80
San Diego City	San Diego City CS	1	175	175	0	100	0	145	3002	2000
San Diego Cnty DPW	County Of San Diego CS	1	900	0	0	0	0	4	371	64
San Juan Capistrano City	City Of San Juan Capistrano CS	1	120	120	0	100	0	0.2	123	0
Santa Margarita Water Dist	Santa Margarita Water District CS	1	23	22	0	95	0	12	600	165
Vallecitos Water District	Meadowlark CS	1	258	258	0	100	0	7.6	247.8	0
TOTALS		15	59495	21909	12000			453.97	9253.8	4554
CS = Collection System										
Category 1 SSO = All discharges of sewage from a sanitary sewer system that exceed 1000 gallons, or result in a discharge to a surface water body or discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.										
Category 2 SSO = All other discharges of sewage resulting from a failure in the sanitary sewer system										

Attachment B5c

November 2011 - Summary of Public Sanitary Sewer Overflows in Region 9										
Responsible Agency	Collection System	Total Number of SSO locations	Total Vol of SSOs (gal)	Total Vol Recovered (gal)	Total Vol Reaching Surface Water	Percent Recovered	Percent Reaching Surface Water	Miles of Pressure Sewer	Miles of Gravity Sewer	Miles of Laterals
Category 1 SSO										
Coronado City	City of Coronado CS	2	205	150	55	73	26	6.6	39.3	1
Marine Corps Base, Camp Pendleton	Usmc Base, Camp Pendleton CS	1	11,700	3,900	7,800	33	66	48.4	104	80
San Diego City	San Diego City CS	1	655	110	0	16	0.00	145	3002	2000
Category 2 SSO										
Ca Dept of Parks & Rec Winterhaven	San Clemente State Beach CS	1	60	0	0	0	0	0	2.1	0.9
Laguna Beach City	City Of Laguna Beach CS	1	300	0	0	0	0	4.5	95	0
Poway City	City Of Poway CS	1	700	100	0	14	0	10	178	34
San Diego City	San Diego City CS	1	600	600	0	100	0	145	3002	2000
San Diego Cnty DPW	County Of San Diego CS	1	200	0	0	0	0	4	371	64
UC San Diego	University Of California, San Diego CS	1	75	75	0	100	0	2	25	3
TOTALS		10	14495	4935	7855			365.5	6818.4	4182.9

CS = Collection System

Category 1 SSO = All discharges of sewage from a sanitary sewer system that exceed 1000 gallons, or result in a discharge to a surface water, or discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

Category 2 SSO = All other discharges of sewage resulting from a failure in the sanitary sewer system

Attachment B5d

December 2011 - Summary of Public Sanitary Sewer Overflows in Region 9										
Responsible Agency	Collection System	Total Number of SSO locations	Total Vol of SSOs (gal)	Total Vol Recovered (gal)	Total Vol Reaching Surface Water	Percent Recovered	Percent Reaching Surface Water	Miles of Pressure Sewer	Miles of Gravity Sewer	Miles of Laterals
Category 1 SSO										
San Diego City	San Diego City CS (Wastewater Collection System)	2	5697	4997	700	87	12	145	3002	2000
Santa Margarita Water Dist.	Santa Margarita Water District CS	1	2350	2350	2350	100	100	12	600	165
South Coast Water District	South Coast Water District CS	1	1200	0	0	0	0	3.2	138	0
Category 2 SSO										
Coronado City	City Of Coronado CS	2	35	35	0	100	0	6.6	39.3	1
Eastern Municipal Water District	Temecula Valley RCS	1	53	53	0	100	0	27	557	0
San Diego City	San Diego City CS	1	600	0	0	0	0	145	3002	2000
TOTALS		8	9935	7435	3050			338.8	7338.3	4166
CS = Collection System										
Category 1 SSO = All discharges of sewage from a sanitary sewer system that exceed 1000 gallons, or result in a discharge to a surface water body or discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.										
Category 2 SSO = All other discharges of sewage resulting from a failure in the sanitary sewer system										

Attachment B5e

September and October 2011 - Summary of Private Lateral Sewage Discharges in Region 9								
Reporting Agency	Collection System	Total Number of PLSD locations	Total Vol of PLSDs (gal)	Total Vol Recovered (gal)	Total Vol Reaching Surface Water	Percent Recovered	Percent Reaching Surface Water	Miles of Private Lateral
Category 1 PLSD								
Carlsbad MWD	Carlsbad MWD CS	1	50	50	1	100	2	NA.0
El Cajon City	City Of El Cajon CS	2	100	35	40	35	40	189
Laguna Beach City	City Of Laguna Beach CS	1	30	26	4	86	13	102
San Diego City	San Diego City CS	2	1305	1050	0	80	0	4049
Vallecitos Water District	Meadowlark CS	2	140	90	0	64	0	312
Category 2 PLSD								
Carlsbad MWD	Carlsbad MWD CS	3	15	10	0	66	0	0
Chula Vista City	City Of Chula Vista CS	3	90	40	0	44	0	0
El Cajon City	City Of El Cajon CS	1	650	650	0	100	0	189
Imperial Beach City	City Of Imperial Beach CS	1	1	0	0	0	0	103
Laguna Beach City	City Of Laguna Beach CS	1	15	0	0	0	0	102
Ramona MWD	Santa Maria CS	1	300	300	0	100	0	62
San Diego City	San Diego City CS	3	945	945	0	100	0	4049
	TOTAL	21	3641	3196	45			9157

PLSD = Private Lateral Sewage Discharge

Category 1 PLSD = All discharges of sewage from a private sewer lateral that exceed 1000 gallons, or result in a discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system

Category 2 PLSD= All other discharges of sewage resulting from a failure of a private sewer lateral

November and December 2011 - Summary of Private Lateral Sewage Discharges in Region 9								
Reporting Agency	Collection System	Total Number of PLSD locations	Total Vol of PLSDs (gal)	Total Vol Recovered (gal)	Total Vol Reaching Surface Water	Percent Recovered	Percent Reaching Surface Water	Miles of Private Lateral
Category 1 PLSD								
Carlsbad MWD	Carlsbad MWD CS	1	30	30	30	100	100	0
Carlsbad MWD	Carlsbad MWD CS	3	45	20	0	44	0	0
San Diego City	San Diego City CS	2	207	100	0	48	0	4049
South Coast Water District	South Coast Water District CS	1	300	100	200	33	66	150
Category 2 PLSD								
Coronado City	City Of Coronado CS	1	3	3	0	100	0	50
Chula Vista City	City Of Chula Vista CS	3	90	40	0	44	0	0
El Cajon City	City Of El Cajon CS	1	15	15	0	100	0	189
Escondido City	Harr Disch To San Elijo CS	1	50	50	0	100	0	83.2
Fallbrook Public Utility Dist	Fallbrook Plant 1, Oceanside of CS	1	10	0	0	0	0	18
La Mesa City	City Of La Mesa CS	1	15	0	0	0	0	73
Laguna Beach City	City Of Laguna Beach CS	1	20	19	0	95	0	102
Moulton Niguel Water District	Moulton Niguel Water District CS	1	100	100	0	100	0	500
Poway City	City Of Poway CS	2	60	50	0	83	0	68
San Clemente City	City Of San Clemente CS	1	9	4	0	44	0	0
San Diego City	San Diego City CS	1	30	30	0	100	0	4049
Solana Beach City	City Of Solana Beach CS	2	575	125	0	21	0	28
South Coast Water District	South Coast Water District CS	2	70	70	0	100	0	150
Vallecitos Water District	Meadowlark CS	1	5	5	0	100	0	312
TOTAL		26	1634	761	230			9821.2

PLSD = Private Lateral Sewage Discharge

Category 1 PLSD = All discharges of sewage from a private sewer lateral that exceed 1000 gallons, or result in a discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

Category 2 PLSD= All other discharges of sewage resulting from a failure of a private sewer lateral

**CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION ACTIONS
FOR THE PERIOD OF OCTOBER 1, 2011 THROUGH DECEMBER 31, 2011**

Reporting Period	Certification Applications Received	Certifications Issued ¹	Enrollment In State Certifications ²	Certifications Time Expired ³	Certification Amendments ⁴	Certification Withdrawals ⁵	Certification Denials Issued ⁶
October 2011	6	2	1	0	1	0	0
November 2011	12	2	0	1	1	1	1
December 2011	6	1	0	1	3	0	0
QUARTERLY TOTAL	24	5	1	2	5	1	1
YTD TOTALS	122	53	27	16	22	17	2

Reporting Period	Permanent Impacts ⁷ (Acres)	Temporary Impacts ⁷ (Acres)	Establishment Mitigation ⁸ (Acres)	Restoration Mitigation ⁹ (Acres)	Enhancement Mitigation ¹⁰ (Acres)	Preservation Mitigation ¹¹ (Acres)
October 2011	0.21	0.54	0.07	0.57	1.14	0.00
November 2011	0.04	0.00	0.00	0.13	0.02	0.00
December 2011	4.44	0.00	1.00	0.50	8.62	0.00
QUARTERLY TOTAL	4.69	0.54	1.07	1.20	9.78	0.00

1. Certifications can be low impact, conditional, or programmatic. Low impact certifications are issued to projects that have minimal potential to adversely impact water quality. Conditional certifications are issued to projects that have the potential to adversely impact water quality, but by complying with technical conditions, will have minimal impacts. Programmatic certifications are conditional certifications issued to projects with like, recurring, or long-term impacts, thereby requiring continuous oversight.
2. In cases where the State Water Resources Control Board has issued a programmatic certification (State Certification), the Regional Water Boards are responsible for reviewing projects in their area to confirm whether they qualify for enrollment in the programmatic certifications.
3. Time Expired refers to projects that may proceed due to the lack of an action by the San Diego Water Board within specified regulatory timelines.
4. Amendments are revisions to certifications that have been issued.
5. Withdrawn refers to projects that the applicant or San Diego Water Board have withdrawn due to procedural issues not corrected within one year.
6. Denials are issued when a project will adversely impact water quality and suitable mitigation measures are not proposed or possible.
7. Permanent impacts (P) result in a permanent fill or loss of wetland function and value. Temporary impacts (T) are expected to return to their original condition within one year.
8. Establishment is defined as the creation of vegetated or unvegetated waters of the United States and/or State where the resource has never previously existed (e.g. conversion of nonnative grassland to a freshwater marsh).
9. Restoration is divided into two activities, re-establishment and rehabilitation. Re-establishment is defined as the return of natural/historic functions to a site where vegetated or unvegetated waters of the United States and/or State previously existed (e.g., removal of fill material to restore a drainage). Rehabilitation is defined as the improvement of the general suite of functions of degraded vegetated or unvegetated waters of the United States and/or State (e.g., removal of a heavy infestation or monoculture of exotic plant species from jurisdictional areas and replacing with native species).
10. Enhancement is defined as the improvement to one or two functions of existing vegetated or unvegetated waters of the United States and/or State (e.g., removal of small patches of exotic plant species from an area containing predominantly natural plant species).
11. Preservation is defined as the acquisition and legal protection from future impacts in perpetuity of existing vegetated or unvegetated waters of the United States and/or State (e.g., conservation easement).

**CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION ACTIONS
FOR THE PERIOD OF OCTOBER 1, 2011 THROUGH DECEMBER 31, 2011**

DATE	APPLICANT	PROJECT TITLE	PROJECT DESCRIPTION	WATERBODY	IMPACT (Acres)	MITIGATION (Acres)	CERTIFICATION ACTION ¹
10/03/2011	City of Murrieta	Line D and Line D-1 Flood Control Realignment	Amendment to allow for select long term maintenance activities.	Murrieta Creek Murrieta HSA (902.32)	No additional impacts.	No additional mitigation required.	11C-030 Amendment
10/10/2011	Sweetwater Authority	36-inch Raw Water Pipeline Replacement Project	The project proposes to repair a break in the 36-inch raw water pipeline below the Sweetwater Dam. The 122 year-old pipeline conveys water stored in the Sweetwater Reservoir to the water treatment plant.	Sweetwater River Telegraph HSA (909.11)	(P) 0.14-acre (400 linear feet) of wetlands. (T) 0.36-acre (630 linear feet) of wetlands.	On-site: Restoration of 0.36-acre of riparian. Off-site: Enhancement of 1.14-acres of wetlands.	11C-035 Technically-conditioned Certification Enrollment in SWRCB GWDR Order No. 2003-017 DWQ
10/17/2011	San Elijo Lagoon Conservancy	San Elijo Lagoon Restoration	The project includes conducting up to 31 soil borings on the San Elijo Lagoon Ecological Reserve. The borings are part of a data collection effort that is underway to implement a wetland restoration program at San Elijo Lagoon.	San Elijo Lagoon San Elijo HSA (904.61)	(T) 3,100 square feet (0.10-acre) of waters of the U.S.	No significant impacts to water are anticipated therefore no mitigation is required.	11C-085 State Pre-certified Nationwide Permit #6
10/28/2011	County of San Diego	Woodside Avenue Drainage Improvement Project	The proposed project is the replacement of approximately 1,800-feet of an existing, partially underground storm drainage system parallel to Woodside Avenue with an upgraded underground drainage system and construction of two 14-foot by 5-foot box culverts that would transport water under State Route 67 for a distance of approximately 340-feet. Dewatering may be required if	Unnamed tributary to the San Diego River Lakeside HSA (907.12)	(P) 0.07 acre of wetlands (T) 0.08 acre of wetland.	Onsite: Establishment of 0.07-acre (35 linear feet) of freshwater marsh Offsite: Restoration and enhancement of 0.21-acre (75 linear feet) of Southern Willow Scrub	10C-114 Technically-conditioned Certification Enrollment in SWRCB GWDR Order No. 2003-017 DWQ

**CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION ACTIONS
FOR THE PERIOD OF OCTOBER 1, 2011 THROUGH DECEMBER 31, 2011**

DATE	APPLICANT	PROJECT TITLE	PROJECT DESCRIPTION	WATERBODY	IMPACT (Acres)	MITIGATION (Acres)	CERTIFICATION ACTION ¹
			groundwater is encountered during construction.				
11/01/2011	City of Escondido	Benton Burn Site Remediation	The project would consist of consolidating waste and capping the surface in areas of flow and scour. The primary objectives of the project are to implement remedial action in order to meet the Minimum Standards for former landfill sites to comply with CCR Title 27 and to reduce the potential for human exposure and health risks to burn ash-containing waste.	Tributary to San Marcos Creek	Not Applicable.	Not Applicable.	11C-070 Denied Coverage with State Pre-certified Nationwide Permit #38
11/01/2011	Bernard L. Traux II	Murrieta 18 Project	Construction of a medical center in association with construction of Jackson Avenue Bridge and connection for through traffic to the City of Temecula	San Diego Bay Ramona HSA (905.41)	Not Applicable	Not Applicable	10C-098 Withdrawn
11/01/2011	Orange County Parks	Aliso Creek Outlet Maintenance Program	Amendment to a combination of previously permitted bi-annual major maintenance work on the Aliso creek outlet and biweekly minor grading to notch the sand berm that plugs the outlet.	Aliso Creek Laruna HSA (901.1)	No additional impacts.	No additional mitigation required.	05C-009 Amendment
11/3/2011	Escondido Union High School District	Citracado High School	The project proposes the development of a new career technology high school on a District owned 36.35 acre site. The project is limited to the construction of the high school within a 23 acre footprint within installation of landscaping elsewhere on the project site.	Escondido Creek Escondido HSA (904.62)	(P) 0.01 acre (110 linear feet) of streambed	On-Site Restoration of 0.1 acre (220 linear feet) of riparian Enhancement of 0.02 acre (100 linear feet) of streambed	11C-005 Technically-conditioned Certification Enrollment in SWRCB GWDR Order No. 2003-017 DWQ

**CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION ACTIONS
FOR THE PERIOD OF OCTOBER 1, 2011 THROUGH DECEMBER 31, 2011**

DATE	APPLICANT	PROJECT TITLE	PROJECT DESCRIPTION	WATERBODY	IMPACT (Acres)	MITIGATION (Acres)	CERTIFICATION ACTION ¹
11/14/2011	Trabuco Canyon WD	Rose Canyon Transmission Line Creek Crossing	The applicant proposes to repair an existing 8-inch diameter water pipeline that was damaged by severe winter storms and associated flooding. The project will entail the removal and replacement of a 20 ft. linear section of the pipeline, which will be cut with both sides of the existing bank grade than replaced with a new section of 8-inch diameter, ductile iron pipeline.	Trabuco Creek Upper Trabuco HSA (901.22)	(T) 0.001 acre (20 linear feet) of streambed	No significant impacts to water are anticipated therefore no mitigation is required.	11C-081 Time Expired
11/21/2011	Riverside County Transportation Department	Interstate 15 and Clinton Keith Road Interchange Improvement	The proposed project is located in the City of Murrieta and consists of the redevelopment of the Interstate 15 and Clinton Keith Road Interchange to improve traffic flow and safety.	Unnamed drainage channel to Murrieta Creek Widomar HSA (902.31)	(P) 0.03 acre (131 linear feet) of streambed	Off-site: Establishment of 0.03 acre or restoration of 0.25 acre (either no less than 131 linear feet) of waters of the U.S.	10C-103 Technically-conditioned Certification Enrollment in SWRCB GWDR Order No. 2003-017 DWQ
12/6/2011	Orange County Parks	Aliso Creek Bike Trail Repair Project	The proposed project consists of reopening the County bike trail across Aliso Creek by replacing the failed structure with a pre-fabricated bridge on a new substructure. Project proposes to install a simple pre-fabricated bike and pedestrian span bridge over Aliso Creek, and install approximately 78 cubic yards of rip-rap to stabilize the banks of the creek from erosion. In addition, existing debris (i.e. concrete, rip-rap, culverts) will be removed from the creek. The new span bridge will replace a low-water crossing bridge that was recently washed out from recent above average rainfall.	Aliso Creek Aliso HSA (901.13)	(P) 0.004-acre (20 linear feet) of streambed.	No significant impacts to water are anticipated therefore no mitigation is required.	11C-079 Time Expired

**CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION ACTIONS
FOR THE PERIOD OF OCTOBER 1, 2011 THROUGH DECEMBER 31, 2011**

DATE	APPLICANT	PROJECT TITLE	PROJECT DESCRIPTION	WATERBODY	IMPACT (Acres)	MITIGATION (Acres)	CERTIFICATION ACTION¹
12/12/2011	County of Riverside Office of Education	Murrieta Regional Learning Center	The proposed project consists of the construction of a regional educational facility comprised of classrooms, hard courts and associated facilities and improvements.	Unnamed tributary to Murrieta Creek Murrieta HSA (902.32)	(P) 0.13 acre (1,054 linear feet) of streambed.	Creation of 1.0-acre (906 linear feet) of mixed riparian scrub and streambed Restoration of 0.5-acre (288 linear feet) of riparian	10C-110 Technically-conditioned Certification Enrollment in SWRCB GWDR Order No. 2003-017 DWQ
12/20/2011	California Department of Transportation (CALTRANS)	Transfer of Responsibility for 125 South Toll Road	Amendment to transfer certification responsibilities from South Bay Expressway to Sandag for an eight-lane highway from Otay Mesa Road (Route 905) to Spring Valley Road (Route 54)	Sweetwater and Otay Rivers, San Miguel and Spring Valley Creek and unnamed tributary of San Miguel Creek. Sweetwater HU 909	No additional impacts.	No additional mitigation required.	99C-133 Amendment
12/22/2011	City of San Diego	Sorrento Creek Channel Maintenance Project	The amendment is to change the seasonal work restrictions to dredge up to 3,000 cubic yards out of Sorrento Creek. The dredging will occur from the confluence of Sorrento Creek and Los Penasquitos Creek, proceeding in a northwest direction 800 linear feet, with the end point approximately in line with Estuary Way.	Sorrento Creek, Carroll Canyon Creek, Los Penasquitos Creek Miramar Reservoir (906.1)	No additional impacts.	No additional mitigation required.	06C-062 Amendment
12/29/2011	City of San Diego	Tijuana River Valley Maintenance Project	An amendment to allow for annual excavation of approximately 10,000-30,000 cubic yards of sediment and trash debris to restore storm water conveyance capacities of the channels, and reduce the chance of flooding to the surrounding properties.	Tijuana River San Ysidro HSA (911.11)	(P) 0.39-acre of vegetated and 3.92-acres of unvegetated waters of the U.S. and/or State.	Enhancement of 4.31-acres of wetland Enhancement of 4.31-acres of streambed.	09C-077 Amendment

**CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION ACTIONS
FOR THE PERIOD OF OCTOBER 1, 2011 THROUGH DECEMBER 31, 2011**

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

Significant NPDES Permits,
WDRs, and Actions of the
San Diego Water Board

February 8, 2012

APPENDED TO EXECUTIVE OFFICER'S REPORT

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Appendix D

Completed ASTM 1527-13 User Questionnaires

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ASTM 1527-13 USER QUESTIONNAIRE

Project Title: Qualcomm Stadium

Project Address: 9449 Friars Road Project City: San Diego Project State: CA

Completed by: Craig Fergusson Company Name: City of San Diego Date: 7/8/15

In order to qualify for one of the *Landowner Liability Protections (LLPs)*³⁵ offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"),³⁶ the *user* must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. These inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The *user* should provide the following information to the *environmental professional*. Failure to conduct these inquiries could result in a determination that "*all appropriate inquiries*" is not complete.

1. Environmental liens that are filed or recorded against the site (40 CFR 312.25).

Did a search of recorded land title records (or judicial records where appropriate, See Note 1 below) identify any environmental liens filed or recorded against the *property* under federal, tribal state or local law? Undetermined

Note1 – In certain jurisdictions, federal, tribal, state, or local statutes, or regulations specify that environmental liens and AULs be filed in judicial records rather than in land title records. In such cases judicial records must be searched for environmental liens and AULs.

2. Activity and land use limitations that are in place on the *property* or that have been filed or recorded against the *property* (40 CFR 312.26(a)(1)(v) and (vi)).

Did a search of *recorded land title records* (or judicial records where appropriate, see Note 1 above) identify any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the *property* and/or have been filed or recorded against the *property* under federal, tribal, state or local law? Undetermined

3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).

Do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an *adjoining property* so that you would have specialized knowledge of the chemicals and processes used by this type of business? I manage the City of San Diego's Tank Engineering and Environmental Management (TEEM) Program and was involved in the removal of 3 USTs from the grounds maintenance shop in 2004, installation of the gas/diesel AST in the same vicinity in 2004, and preparation of the SPCC Plan for the facility.

4. Relationship of the purchase price to the fair market value of the *property* if it were not contaminated (40 CFR 312.29).

Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*? Undetermined

5. Commonly known or reasonably ascertainable information about the *property* (40 DFR 312.30).

Are you aware of commonly known or *reasonable ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as *user*,

- a) Do you know the past uses of the *property*? No
- b) Do you know of specific chemicals that are present or once were present at the *property*? Yes – as it relates to the former USTs (gas and diesel), current AST (gas and diesel), and storage of materials within the scope of the SPCC Plan (gas, diesel, oil filled electrical equipment, etc).

³⁵ *Landowner Liability Protections*, or *LLP's*, is the term used to describe the three types of potential defenses to Superfund liability in EPA's *Interim Guidance Regarding Criteria Landowners Must Meet in Order to Qualify for Bona Fide Prospective Purchaser, Contiguous Property Owner, or Innocent Landowner Limitations on CERCLA Liability* ("Common Elements" Guide) issued on March 6, 2003.

³⁶ P.L. 107-118.

- c) Do you know of spills or other chemical releases that have taken place at the *property*? There was some indication of fuel having dripped beneath one of the fuel dispensers associated with the UST system noted during an annual DEH compliance inspection. The UST system was removed within 1-2 years of the inspection and there was no TPH gas or diesel detected in any of the three soil samples collected, confirming that the noted release was minimal. There was a detection of MTBE in a soil sample collected at the time of the UST removals in 2004 (no detection of TPH gas or diesel). Levels were low and the DEH did not open an unauthorized release case. Based on the depth of the sample (at or near groundwater) it was also unclear if this originated from the UST system or from an offsite source such as the upgradient Kinder Morgan release.
- d) Do you know of any environmental cleanups that have taken place at the *property*? None that I have been involved with or am aware of.

6. The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

Based on your knowledge and experience related to the *property* are there any *obvious* indicators that point to the presence or likely presence of releases at the *property*? No, nothing beyond what is noted in previous questions.

**ASTM 1527-13
USER QUESTIONNAIRE**

Project Title: QUALCOMM STADIUM PHASE 1 ESA JN: JOY NEWMAN
 Project Address: 9449 FRANKS Project City: SAN DIEGO Project State: CA
 Completed by: JN Company Name: CICLO Date: 7-7-15
SD ENV. SVS

In order to qualify for one of the *Landowner Liability Protections (LLPs)*³⁵ offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"),³⁶ the user must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. These inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The user should provide the following information to the *environmental professional*. Failure to conduct these inquiries could result in a determination that "*all appropriate inquiries*" is not complete.

1. Environmental liens that are filed or recorded against the site (40 CFR 312.25).

Did a search of recorded land title records (or judicial records where appropriate, See Note 1 below) identify any environmental liens filed or recorded against the *property* under federal, tribal state or local law? unk

Note 1 – In certain jurisdictions, federal, tribal, state, or local statutes, or regulations specify that environmental liens and AULs be filed in judicial records rather than in land title records. In such cases judicial records must be searched for environmental liens and AULs.

2. Activity and land use limitations that are in place on the property or that have been filed or recorded against the property (40 CFR 312.26(a)(1)(v) and (vi)).

Did a search of *recorded land title records* (or judicial records where appropriate, see Note 1 above) identify any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the *property* and/or have been filed or recorded against the *property* under federal, tribal, state or local law? unk

3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).

Do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an *adjoining property* so that you would have specialized knowledge of the chemicals and processes used by this type of business? yes

4. Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29).

Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*? unk

5. Commonly known or reasonably ascertainable information about the property (40 DFR 312.30).

Are you aware of commonly known or *reasonable ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as user,

- a) Do you know the past uses of the *property*? yes
- b) Do you know of specific chemicals that are present or once were present at the *property*? yes
- c) Do you know of spills or other chemical releases that have taken place at the *property*? yes
- d) Do you know of any environmental cleanups that have taken place at the *property*? yes

6. The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

Based on your knowledge and experience related to the *property* are there any *obvious* indicators that point to the presence or likely presence of releases at the *property*? nothing related to Qualcomm business, only related to offsite contamination

³⁵ *Landowner Liability Protections*, or *LLP's*, is the term used to describe the three types of potential defenses to Superfund liability in EPA's *Interim Guidance Regarding Criteria Landowners Must Meet in Order to Qualify for Bona Fide Prospective Purchaser, Contiguous Property Owner, or Innocent Landowner Limitations on CERCLA Liability ("Common Elements" Guide)* issued on March 6, 2003.

³⁶ P.L. 107-118.

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Appendix E

**Environmental
Database Report**

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Qualcomm Stadium

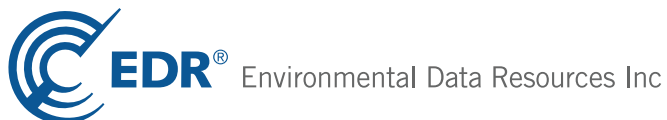
9449 Friars Rd

San Diego, CA 92108

Inquiry Number: 4337976.2s

June 26, 2015

The EDR Radius Map™ Report with GeoCheck®



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

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

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet 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.

TARGET PROPERTY INFORMATION

ADDRESS

9449 FRIARS RD
SAN DIEGO, CA 92108

COORDINATES

Latitude (North): 32.7833000 - 32° 46' 59.88"
Longitude (West): 117.1197000 - 117° 7' 10.92"
Universal Transverse Mercator: Zone 11
UTM X (Meters): 488790.6
UTM Y (Meters): 3627080.0
Elevation: 64 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 32117-G1 LA MESA, CA
Most Recent Revision: 1994

West Map: 32117-G2 LA JOLLA, CA
Most Recent Revision: 1996

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20120519
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
9449 FRIARS RD
SAN DIEGO, CA 92108

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	UNITED PRESS INTERNA	9449 FRIARS RD TRAIL	HAZNET		TP
A2	FELD MOTOR SPORTS	9449 FRIARS RD	HAZNET		TP
A3		9449 FRIARS ROAD	CHMIRS		TP
A4	SPORTS ILLUSTRATED	9449 FRIARS RD MEDIA	HAZNET		TP
A5	NEILSON DILLINGHAM B	9449 FRIAR'S RD	HAZNET		TP
A6	CTY SD- J.M. STADIUM	9449 FRIARS RD	SWEEPS UST		TP
A7	ASSOCIATED PRESS	9449 FRIARS RD TRAIL	HAZNET		TP
A8	CITY OF SAN DIEGO	9449 FRIARS RD	HAZNET		TP
A9	MILWAUKEE JOURNAL SE	9449 FRIARS RD MEDIA	HAZNET		TP
A10	JACK MURPHY STADIUM	9449 FRIARS RD	FINDS		TP
A11	QUALCOMM STADIUM	9449 FRIARS RD	SAN DIEGO CO. SAM		TP
A12	KNIGHT RIDDER TRIBUN	9449 FRIARS RD QUALC	HAZNET		TP
A13	SAN DIEGO RIVER WETL	9449 FRIARS ROAD	NPDES		TP
A14	ROBBIE GORDON STADIU	9449 FRIARS RD	HAZNET		TP
A15	SDCTY QUALCOMM STADI	9449 FRIARS RD	HAZNET		TP
A16		QUALEOMM STADIUM, 94	CHMIRS		TP
A17	KODAK	9449 FRIARS RD TRAIL	HAZNET		TP
A18	REUTERS	9449 FRIARS RD TRAIL	HAZNET		TP
A19		9449 FRIARS ROAD	ERNS		TP
A20	QUALCOMM STADIUM PAR	9449 FRIARS ROAD	SLIC		TP
A21		9449 FRIARS RD	CHMIRS		TP
A22	QUALCOMM STADIUM	9449 FRIARS RD	RGA LUST		TP
A23		PARKING LOT, JACK MU	CHMIRS		TP
A24	SDCTY QUALCOMM STADI	9449 FRIARS RD	SWRCY, SLIC, UST, AST, CHMIRS, San Diego Co. HMMD		TP
A25	JACK MURPHY STADIUM	9449 FRIARS RD	FTTS, HIST FTTS		TP
A26	AGENCE FRANCE PRESS	9449 FRIARS RD MEDIA	HAZNET		TP
Reg	MIRAMAR NAVAL AIR ST		DOD	Same	4021, 0.762, NE
B27	H G FENTON MATERIAL	7400 MURRAY CANYON R	SLIC, SWEEPS UST, San Diego Co. HMMD, SAN DIEGO...	Higher	3, 0.001,
B28	MISSION VALLEY PLANT	9300 FRIARS RD	HIST CORTESE, LUST, SLIC, SWEEPS UST, ENF, San...	Higher	58, 0.011, WNW
B29	H G FENTON MATERIAL	9310 FRIARS RD	San Diego Co. HMMD, SAN DIEGO CO. SAM	Higher	58, 0.011, WNW
B30	SHEWEY ENVIRONMENT F	9310 FRIARS RD	WMUDS/SWAT	Higher	58, 0.011, WNW
B31	CLASS 2 SOIL TRTMENT	9310 FRIARS RD	HIST CORTESE, LUST, LDS, ENF, WMUDS/SWAT	Higher	58, 0.011, WNW
B32	MISSION VALLEY PLANT	9310 FRIARS RD	HIST UST	Higher	58, 0.011, WNW
B33	FENTON PROPERTIES	9300 FRIARS RD	LUST, EMI	Higher	66, 0.013, WNW
B34	MISSION VALLEY PLANT	9300 FRIARS RD	HIST UST, WDS	Higher	66, 0.013, WNW
C35		9950 SAN DIEGO MISS	EDR US Hist Auto Stat	Higher	88, 0.017, NE
C36	POWERINE OIL CO	9950 SAN DIEGO MISSI	RCRA-SQG, San Diego Co. HMMD, HAZNET	Higher	88, 0.017, NE
C37	MOBIL OIL CORP, WCS&	9950 SAN DIEGO MISSI	SAN DIEGO CO. SAM	Higher	88, 0.017, NE
C38	SFPP LP	9950 SAN DIEGO MISSI	HIST UST, SWEEPS UST, CHMIRS, San Diego Co. HMMD,...	Higher	88, 0.017, NE

MAPPED SITES SUMMARY

Target Property Address:
 9449 FRIARS RD
 SAN DIEGO, CA 92108

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
C39	SFPP, LP/KINDER MORG	9950 SAN DIEGO MISSI	HIST CORTESE, AST, CHMIRS, San Diego Co. HMMD, EMI	Higher	88, 0.017, NE
C40	MISSION VALLEY TERMI	9950 SAN DIEGO MISSI	San Diego Co. HMMD, SAN DIEGO CO. SAM	Higher	88, 0.017, NE
C41	SHELL OIL PRODUCTS U	9950 SAN DIEGO MISSI	RCRA-LQG, HAZNET	Higher	88, 0.017, NE
C42	MISSION VALLEY TERMI	9950 SAN DIEGO MISSI	HIST UST	Higher	88, 0.017, NE
C43	POWERINE OIL CO	9950 SAN DIEGO MISSI	RCRA-LQG, FINDS	Higher	88, 0.017, NE
C44	MOBIL OIL CORP MISSI	9950 SAN DIEGO MISSI	RCRA-SQG	Higher	88, 0.017, NE
C45	MISSION VALLEY PLANT	9950 SAN DIEGO MISSI	SWEEPS UST	Higher	88, 0.017, NE
C46	MISSION VALLEY TERMI	9950 SAN DIEGO MISSI	RCRA-LQG, WDS	Higher	88, 0.017, NE
C47	TOSCO CORPORATION, S	9950 SAN DIEGO MISSI	RCRA NonGen / NLR, US AIRS	Higher	88, 0.017, NE
C48	SFPP, L.P. MISSION V	9950 SAN DIEGO MISSI	RCRA-LQG	Higher	88, 0.017, NE
C49	MISSION VALLEY TERMI	9950 SAN DIEGO MISSI	SWEEPS UST	Higher	88, 0.017, NE
C50	MISSION VALLEY BULK	9950 SAN DIEGO MISSI	NPDES, SLIC, CHMIRS, ENF, HAZNET, ENVIROSTOR	Higher	88, 0.017, NE
C51		9966 SAN DIEGO MISS	EDR US Hist Auto Stat	Higher	100, 0.019, NE
C52	EQUILON SAN DIEGO TE	9966 SAN DIEGO MISSI	RCRA-SQG, FINDS, LUST, SLIC, HIST UST	Higher	100, 0.019, NE
C53	TEXACO INC. TERMINAL	9966 SAN DIEGO MISSI	HIST UST	Higher	100, 0.019, NE
C54	TEXACO USA (TERMINAL	9966 SAN DIEGO MISSI	UST, SWEEPS UST, San Diego Co. HMMD, SAN DIEGO CO...	Higher	100, 0.019, NE
55	RUSSELL TOM CHEVRON	2222 MISSION VILLA	EDR US Hist Auto Stat	Higher	101, 0.019, North
56	TEXACO USA SALES TER	9966 MISSION	HIST CORTESE	Higher	216, 0.041, NE
D57	HANGERS CLEANERS	2169 FENTON PKWY STE	DRYCLEANERS	Higher	270, 0.051, WSW
D58		2169 FENTON PKWY	EDR US Hist Cleaners	Higher	383, 0.073, WSW
E59		2365 NORTHSIDE DR	EDR US Hist Auto Stat	Higher	514, 0.097, West
E60	THERMAL TREATMENT FA	2365 NORTHSIDE DR, B	LDS, WMUDS/SWAT	Higher	514, 0.097, West
61		3444 CAMINO DEL RIO	EDR US Hist Auto Stat	Higher	752, 0.142, SSW
62		2520 NORTHSIDE DR	EDR US Hist Auto Stat	Higher	1006, 0.191, West
63		3545 CAMINO DEL RIO	EDR US Hist Auto Stat	Higher	1039, 0.197, SSE
64	SIERRA SPRINGS	10306 SAN DIEGO MISS	SWEEPS UST, San Diego Co. HMMD	Higher	1049, 0.199, ENE
F65		3435 CAMINO DEL RIO	EDR US Hist Auto Stat	Higher	1072, 0.203, South
F66		3435 CAMINO DEL RIO	EDR US Hist Cleaners	Higher	1072, 0.203, South
G67	COSTCO WHOLESALE NO	2345 N MISSION CITY	RCRA NonGen / NLR, FINDS	Higher	1143, 0.216, West
G68	COSTCO WHOLESALE #48	2345 FENTON PKWY	RCRA-LQG, FINDS	Higher	1143, 0.216, West
69	CENTERSIDE ONE	3111 CAMINO DEL RIO	SWEEPS UST	Lower	1174, 0.222, SW
70	CALIFORNIA HIGHWAY P	3703 CAMINO DEL RIO	HIST UST	Higher	1187, 0.225, SE
71		3333 CAMINO DEL RIO	EDR US Hist Auto Stat	Higher	1197, 0.227, SSW
72		5942 RANCHO MISSION	EDR US Hist Cleaners	Higher	1230, 0.233, East
73	MICHAEL S CLEANERS	10439 SAN DIEGO MI	EDR US Hist Cleaners	Higher	1290, 0.244, ENE
74	NATIONAL UNIVERSITY/	4007 CAMINO DEL RIO	SLIC, San Diego Co. HMMD, SAN DIEGO CO. SAM	Higher	2393, 0.453, ESE
75	ARCO #1761	2696 MISSION VILLAGE	LUST, SWEEPS UST, Notify 65, San Diego Co. HMMD,...	Higher	3113, 0.590, NNW
76	ROSE TOYOTA	5926-27,5933,5957 FA	ENVIROSTOR	Higher	3908, 0.740, East
77	USAR CNTR SAN DIEGO		ENVIROSTOR	Higher	4341, 0.822, East

MAPPED SITES SUMMARY

Target Property Address:
9449 FRIARS RD
SAN DIEGO, CA 92108

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
78	TRULY NOLEN EXTERMIN	5909 MISSION GORGE R	Toxic Pits	Higher	4472, 0.847, East
79	FORMER ARCO	6110 MISSION GORGE R	HIST CORTESE, LUST, SLIC, ENVIROSTOR	Higher	5217, 0.988, East

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

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

Site	Database(s)	EPA ID
UNITED PRESS INTERNA 9449 FRIARS RD TRAIL SAN DIEGO, CA 92108	HAZNET GEPaid: CAP000035600	N/A
FELD MOTOR SPORTS 9449 FRIARS RD SAN DIEGO, CA 92108	HAZNET GEPaid: CAC002684685	N/A
9449 FRIARS ROAD 9449 FRIARS ROAD SAN DIEGO, CA	CHMIRS OES Incident Number: '08-1245 OES Incident Number: '13-2098 OES Incident Number: 05-5121	N/A
SPORTS ILLUSTRATED 9449 FRIARS RD MEDIA SAN DIEGO, CA 92108	HAZNET GEPaid: CAP000035659	N/A
NEILSON DILLINGHAM B 9449 FRIAR'S RD SAN DIEGO, CA 92108	HAZNET GEPaid: CAC000771576	N/A
CTY SD- J.M. STADIUM 9449 FRIARS RD SAN DIEGO, CA 92108	SWEEPS UST Comp Number: 21360 Status: A Tank Status: A	N/A
ASSOCIATED PRESS 9449 FRIARS RD TRAIL SAN DIEGO, CA 92108	HAZNET GEPaid: CAP000035592	N/A
CITY OF SAN DIEGO 9449 FRIARS RD SAN DIEGO, CA 92108	HAZNET GEPaid: CAH111000319	N/A
MILWAUKEE JOURNAL SE 9449 FRIARS RD MEDIA SAN DIEGO, CA 92108	HAZNET GEPaid: CAP000035618	N/A
JACK MURPHY STADIUM 9449 FRIARS RD SAN DIEGO, CA 92108	FINDS Registry ID:: 110011660103 Registry ID:: 110057108133	N/A

EXECUTIVE SUMMARY

QUALCOMM STADIUM 9449 FRIARS RD SAN DIEGO, CA 92108	SAN DIEGO CO. SAM Facility Status: Closed Case Case Number: H21360-001	N/A
KNIGHT RIDDER TRIBUN 9449 FRIARS RD QUALC SAN DIEGO, CA 92108	HAZNET GEPaid: CAP000035535	N/A
SAN DIEGO RIVER WETL 9449 FRIARS ROAD SAN DIEGO, CA 92108	NPDES	N/A
ROBBIE GORDON STADIU 9449 FRIARS RD SAN DIEGO, CA 92108	HAZNET GEPaid: CAC002728728 GEPaid: CAC002598286	N/A
SDCTY QUALCOMM STADI 9449 FRIARS RD SAN DIEGO, CA 92108	HAZNET GEPaid: CAL000022738	N/A
QUALEOMM STADIUM, 94 QUALEOMM STADIUM, 94 SAN DIEGO, CA	CHMIRS OES Incident Number: 07-6374	N/A
KODAK 9449 FRIARS RD TRAIL SAN DIEGO, CA 92108	HAZNET GEPaid: CAP000035634	N/A
REUTERS 9449 FRIARS RD TRAIL SAN DIEGO, CA 92108	HAZNET GEPaid: CAP000035642	N/A
9449 FRIARS ROAD 9449 FRIARS ROAD SAN DIEGO, CA	ERNS EDR ID:: 862095	N/A
QUALCOMM STADIUM PAR 9449 FRIARS ROAD SAN DIEGO, CA 92108	SLIC Global Id: T10000004719 Facility Status: Completed - Case Closed	N/A
9449 FRIARS RD 9449 FRIARS RD SAN DIEGO, CA 92108	CHMIRS OES Incident Number: 14-0895	N/A

EXECUTIVE SUMMARY

QUALCOMM STADIUM 9449 FRIARS RD SAN DIEGO, CA	RGA LUST	N/A
PARKING LOT, JACK MU PARKING LOT, JACK MU SAN DIEGO, CA 92108	CHMIRS OES Incident Number: 010944	N/A
SDCTY QUALCOMM STADI 9449 FRIARS RD SAN DIEGO, CA 92108	SWRCY Cert Id: RC14685 SLIC Global Id: T06019753152 Facility Status: Completed - Case Closed UST Facility Id: H21360 AST CHMIRS OES Incident Number: 03-1087 San Diego Co. HMMD Facility ID: 121360	N/A
JACK MURPHY STADIUM 9449 FRIARS RD SAN DIEGO, CA 92108	FTTS HIST FTTS	N/A
AGENCE FRANCE PRESS 9449 FRIARS RD MEDIA SAN DIEGO, CA 92108	HAZNET GEPAID: CAP000035667	N/A

DATABASES WITH NO MAPPED SITES

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

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

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

EXECUTIVE SUMMARY

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

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

Federal RCRA generators list

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

Federal institutional controls / engineering controls registries

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

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

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

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

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

State and tribal registered storage tank lists

INDIAN UST..... Underground Storage Tanks on Indian Land
FEMA UST..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

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

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

EXECUTIVE SUMMARY

Local Lists of Landfill / Solid Waste Disposal Sites

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

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs
HIST Cal-Sites..... Historical Calsites Database
SCH..... School Property Evaluation Program
CDL..... Clandestine Drug Labs
US HIST CDL..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST..... Facility Inventory Database

Local Land Records

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

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
LDS..... Land Disposal Sites Listing
MCS..... Military Cleanup Sites Listing
SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

DOT OPS..... Incident and Accident Data
FUDS..... Formerly Used Defense Sites
CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
UMTRA..... Uranium Mill Tailings Sites
US MINES..... Mines Master Index File
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
SSTS..... Section 7 Tracking Systems
ICIS..... Integrated Compliance Information System
PADS..... PCB Activity Database System
MLTS..... Material Licensing Tracking System
RADINFO..... Radiation Information Database
RAATS..... RCRA Administrative Action Tracking System
RMP..... Risk Management Plans
CA BOND EXP. PLAN..... Bond Expenditure Plan
UIC..... UIC Listing
Cortese..... "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings..... CUPA Resources List
WIP..... Well Investigation Program Case List

EXECUTIVE SUMMARY

ENF.....	Enforcement Action Listing
EML.....	Emissions Inventory Data
INDIAN RESERV.....	Indian Reservations
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
WDS.....	Waste Discharge System
Financial Assurance.....	Financial Assurance Information Listing
PROC.....	Certified Processors Database
HWT.....	Registered Hazardous Waste Transporter Database
HWP.....	EnviroStor Permitted Facilities Listing
MWMP.....	Medical Waste Management Program Listing
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
EPA WATCH LIST.....	EPA WATCH LIST
US FIN ASSUR.....	Financial Assurance Information
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
COAL ASH DOE.....	Steam-Electric Plant Operation Data
2020 COR ACTION.....	2020 Corrective Action Program List
PRP.....	Potentially Responsible Parties

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS 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. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

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

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

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting

EXECUTIVE SUMMARY

the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/10/2015 has revealed that there are 5 RCRA-LQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SHELL OIL PRODUCTS U	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C41	160
POWERINE OIL CO	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C43	164
MISSION VALLEY TERMI	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C46	168
SFPP, L.P. MISSION V	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C48	171
COSTCO WHOLESALE #48	2345 FENTON PKWY	W 1/8 - 1/4 (0.216 mi.)	G68	242

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

A review of the RCRA-SQG list, as provided by EDR, and dated 03/10/2015 has revealed that there are 3 RCRA-SQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
POWERINE OIL CO	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C36	87
MOBIL OIL CORP MISSI	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C44	165
EQUILON SAN DIEGO TE	9966 SAN DIEGO MISSI	NE 0 - 1/8 (0.019 mi.)	C52	217

State- and tribal - equivalent CERCLIS

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

A review of the ENVIROSTOR list, as provided by EDR, and dated 05/04/2015 has revealed that there are 4 ENVIROSTOR sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MISSION VALLEY BULK Facility Id: 71002597 Status: Inactive - Needs Evaluation	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C50	178
ROSE TOYOTA Facility Id: 37550008 Status: Refer: 1248 Local Agency	5926-27,5933,5957 FA	E 1/2 - 1 (0.740 mi.)	76	258

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
USAR CNTR SAN DIEGO Facility Id: 80000490 Status: Inactive - Needs Evaluation		E 1/2 - 1 (0.822 mi.)	77	259
FORMER ARCO Facility Id: 60001297 Status: Refer: 1248 Local Agency	6110 MISSION GORGE R	E 1/2 - 1 (0.988 mi.)	79	260

State and tribal leaking storage tank lists

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

A review of the LUST list, as provided by EDR, and dated 03/13/2015 has revealed that there are 4 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MISSION VALLEY PLANT Global Id: T0607301905 Global Id: T0607301245 Global Id: T0607399247 Case Number: 9UT2950 Closed Date: 6/23/93 Status: Completed - Case Closed Status: Case Closed	9300 FRIARS RD	WNW 0 - 1/8 (0.011 mi.)	B28	52
CLASS 2 SOIL TRTMENT Global Id: T0607301717 Status: Completed - Case Closed	9310 FRIARS RD	WNW 0 - 1/8 (0.011 mi.)	B31	69
FENTON PROPERTIES Case Number: 9UT2493 Case Number: 9UT3137 Case Number: 9UT4064 Closed Date: 5/19/00 Closed Date: 3/9/00 Status: Case Closed	9300 FRIARS RD	WNW 0 - 1/8 (0.013 mi.)	B33	80
EQUILON SAN DIEGO TE Case Number: 9UT542 Status: Post remedial action monitoring	9966 SAN DIEGO MISSI	NE 0 - 1/8 (0.019 mi.)	C52	217

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

A review of the SLIC list, as provided by EDR, and dated 03/13/2015 has revealed that there are 5 SLIC sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
H G FENTON MATERIAL Global Id: T0608155308 Facility Status: Completed - Case Closed	7400 MURRAY CANYON R	0 - 1/8 (0.001 mi.)	B27	50

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MISSION VALLEY PLANT Global Id: T0608197271 Facility Status: Completed - Case Closed	9300 FRIARS RD	WNW 0 - 1/8 (0.011 mi.)	B28	52
MISSION VALLEY BULK Global Id: SL607392800 Facility Status: Open - Remediation	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C50	178
EQUILON SAN DIEGO TE Global Id: T0608182474 Facility Status: Completed - Case Closed	9966 SAN DIEGO MISSI	NE 0 - 1/8 (0.019 mi.)	C52	217
NATIONAL UNIVERSITY/ Global Id: T0608197377 Facility Status: Completed - Case Closed	4007 CAMINO DEL RIO	ESE 1/4 - 1/2 (0.453 mi.)	74	251

SAN DIEGO CO. SAM: 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.

A review of the SAN DIEGO CO. SAM list, as provided by EDR, and dated 03/23/2010 has revealed that there are 7 SAN DIEGO CO. SAM sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
H G FENTON MATERIAL Facility Status: Closed Case Case Number: H21131-001	7400 MURRAY CANYON R	0 - 1/8 (0.001 mi.)	B27	50
MISSION VALLEY PLANT Facility Status: Closed Case Case Number: H02325-001 Case Number: H02325-002 Case Number: H02325-003 Case Number: H02325-004	9300 FRIARS RD	WNW 0 - 1/8 (0.011 mi.)	B28	52
H G FENTON MATERIAL Facility Status: Closed Case Case Number: H21130-001 Case Number: H21130-002	9310 FRIARS RD	WNW 0 - 1/8 (0.011 mi.)	B29	67
MOBIL OIL CORP, WCS& Facility Status: Preliminary Assessment Case Number: H04288-001	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C37	89
MISSION VALLEY TERMI Facility Status: Preliminary Assessment Case Number: H21132-001	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C40	159
TEXACO USA (TERMINAL) Facility Status: Remedial Investigation Facility Status: Closed Case Case Number: H04507-002 Case Number: H04507-001	9966 SAN DIEGO MISSI	NE 0 - 1/8 (0.019 mi.)	C54	225
NATIONAL UNIVERSITY/ Facility Status: Closed Case Case Number: H38278-001	4007 CAMINO DEL RIO	ESE 1/4 - 1/2 (0.453 mi.)	74	251

EXECUTIVE SUMMARY

State and tribal registered storage tank lists

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

A review of the UST list, as provided by EDR, and dated 03/13/2015 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
TEXACO USA (TERMINAL) Facility Id: H04507	9966 SAN DIEGO MISSI	NE 0 - 1/8 (0.019 mi.)	C54	225

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

A review of the AST list, as provided by EDR, and dated 08/01/2009 has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SFPF, LP/KINDER MORG	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C39	107

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

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

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there are 3 WMUDS/SWAT sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SHEWEY ENVIRONMENT F	9310 FRIARS RD	WNW 0 - 1/8 (0.011 mi.)	B30	68
CLASS 2 SOIL TRTMENT	9310 FRIARS RD	WNW 0 - 1/8 (0.011 mi.)	B31	69
THERMAL TREATMENT FA	2365 NORTHSIDE DR, B	W 0 - 1/8 (0.097 mi.)	E60	235

Local Lists of Hazardous waste / Contaminated Sites

Toxic Pits: The Toxic Pits Cleanup Act Sites database identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. The data come from the State Water Resources Control Board.

A review of the Toxic Pits list, as provided by EDR, and dated 07/01/1995 has revealed that there is 1 Toxic Pits site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
TRULY NOLEN EXTERMIN Task #: 89008 Status: CLOSED Closure Date: 03/20/90	5909 MISSION GORGE R	E 1/2 - 1 (0.847 mi.)	78	260

EXECUTIVE SUMMARY

Local Lists of Registered Storage Tanks

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 7 HIST UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MISSION VALLEY PLANT Facility Id: 00000009403	9310 FRIARS RD	WNW 0 - 1/8 (0.011 mi.)	B32	80
MISSION VALLEY PLANT Facility Id: 00000020427	9300 FRIARS RD	WNW 0 - 1/8 (0.013 mi.)	B34	83
SFPP LP Facility Id: 00000020122	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C38	89
MISSION VALLEY TERMI Facility Id: 00000035005	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C42	163
EQUILON SAN DIEGO TE Facility Id: 00000033190	9966 SAN DIEGO MISSI	NE 0 - 1/8 (0.019 mi.)	C52	217
TEXACO INC. TERMINAL Facility Id: 00000035831	9966 SAN DIEGO MISSI	NE 0 - 1/8 (0.019 mi.)	C53	224
CALIFORNIA HIGHWAY P Facility Id: 00000035433	3703 CAMINO DEL RIO	SE 1/8 - 1/4 (0.225 mi.)	70	250

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

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 8 SWEEPS UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
H G FENTON MATERIAL Comp Number: 21131	7400 MURRAY CANYON R	0 - 1/8 (0.001 mi.)	B27	50
MISSION VALLEY PLANT Comp Number: 2325 Status: A Tank Status: A	9300 FRIARS RD	WNW 0 - 1/8 (0.011 mi.)	B28	52
SFPP LP Comp Number: 28545 Status: A Tank Status: A	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C38	89
MISSION VALLEY PLANT Comp Number: 4132	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C45	167
MISSION VALLEY TERMI Comp Number: 21132 Status: A	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C49	178
TEXACO USA (TERMINAL) Comp Number: 4507 Status: A Tank Status: A	9966 SAN DIEGO MISSI	NE 0 - 1/8 (0.019 mi.)	C54	225

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SIERRA SPRINGS Comp Number: 844 Status: A	10306 SAN DIEGO MISS	ENE 1/8 - 1/4 (0.199 mi.)	64	238

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CENTERSIDE ONE Comp Number: 29774 Status: A Tank Status: A	3111 CAMINO DEL RIO	SW 1/8 - 1/4 (0.222 mi.)	69	249

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/10/2015 has revealed that there are 2 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
TOSCO CORPORATION, S	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C47	170
COSTCO WHOLESALE NO	2345 N MISSION CITY	W 1/8 - 1/4 (0.216 mi.)	G67	240

DOD: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 DOD site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MIRAMAR NAVAL AIR ST		NE 1/2 - 1 (0.762 mi.)	0	50

HIST CORTESE: 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 [CALSTATES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 4 HIST CORTESE sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MISSION VALLEY PLANT Reg Id: 9UT2493 Reg Id: 9UT3137	9300 FRIARS RD	WNW 0 - 1/8 (0.011 mi.)	B28	52
CLASS 2 SOIL TRTMENT Reg Id: 9UT2950 Reg Id: 9 000000628	9310 FRIARS RD	WNW 0 - 1/8 (0.011 mi.)	B31	69

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SFPP, LP/KINDER MORG Reg Id: 9 000054N91 Reg Id: 9 000055N91 Reg Id: 9 000056N91 Reg Id: 9 000057N91	9950 SAN DIEGO MISSI	NE 0 - 1/8 (0.017 mi.)	C39	107
TEXACO USA SALES TER Reg Id: 9UT542	9966 MISSION	NE 0 - 1/8 (0.041 mi.)	56	233

Notify 65: 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.

A review of the Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ARCO #1761	2696 MISSION VILLAGE	NNW 1/2 - 1 (0.590 mi.)	75	252

DRYCLEANERS: 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 cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the DRYCLEANERS list, as provided by EDR, and dated 02/18/2015 has revealed that there is 1 DRYCLEANERS site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HANGERS CLEANERS EPA Id: CAL000222166	2169 FENTON PKWY STE	WSW 0 - 1/8 (0.051 mi.)	D57	234

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR US Hist Auto Stat: 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.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 9 EDR US

EXECUTIVE SUMMARY

Hist Auto Stat sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	9950 SAN DIEGO MISS	NE 0 - 1/8 (0.017 mi.)	C35	86
Not reported	9966 SAN DIEGO MISS	NE 0 - 1/8 (0.019 mi.)	C51	217
RUSSELL TOM CHEVRON	2222 MISSION VILLA	N 0 - 1/8 (0.019 mi.)	55	233
Not reported	2365 NORTHSIDE DR	W 0 - 1/8 (0.097 mi.)	E59	235
Not reported	3444 CAMINO DEL RIO	SSW 1/8 - 1/4 (0.142 mi.)	61	237
Not reported	2520 NORTHSIDE DR	W 1/8 - 1/4 (0.191 mi.)	62	237
Not reported	3545 CAMINO DEL RIO	SSE 1/8 - 1/4 (0.197 mi.)	63	237
Not reported	3435 CAMINO DEL RIO	S 1/8 - 1/4 (0.203 mi.)	F65	240
Not reported	3333 CAMINO DEL RIO	SSW 1/8 - 1/4 (0.227 mi.)	71	250

EDR US Hist 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.

A review of the EDR US Hist Cleaners list, as provided by EDR, has revealed that there are 4 EDR US Hist Cleaners sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	2169 FENTON PKWY	WSW 0 - 1/8 (0.073 mi.)	D58	234
Not reported	3435 CAMINO DEL RIO	S 1/8 - 1/4 (0.203 mi.)	F66	240
Not reported	5942 RANCHO MISSION	E 1/8 - 1/4 (0.233 mi.)	72	250
MICHAEL S CLEANERS	10439 SAN DIEGO MI	ENE 1/8 - 1/4 (0.244 mi.)	73	251

EXECUTIVE SUMMARY

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

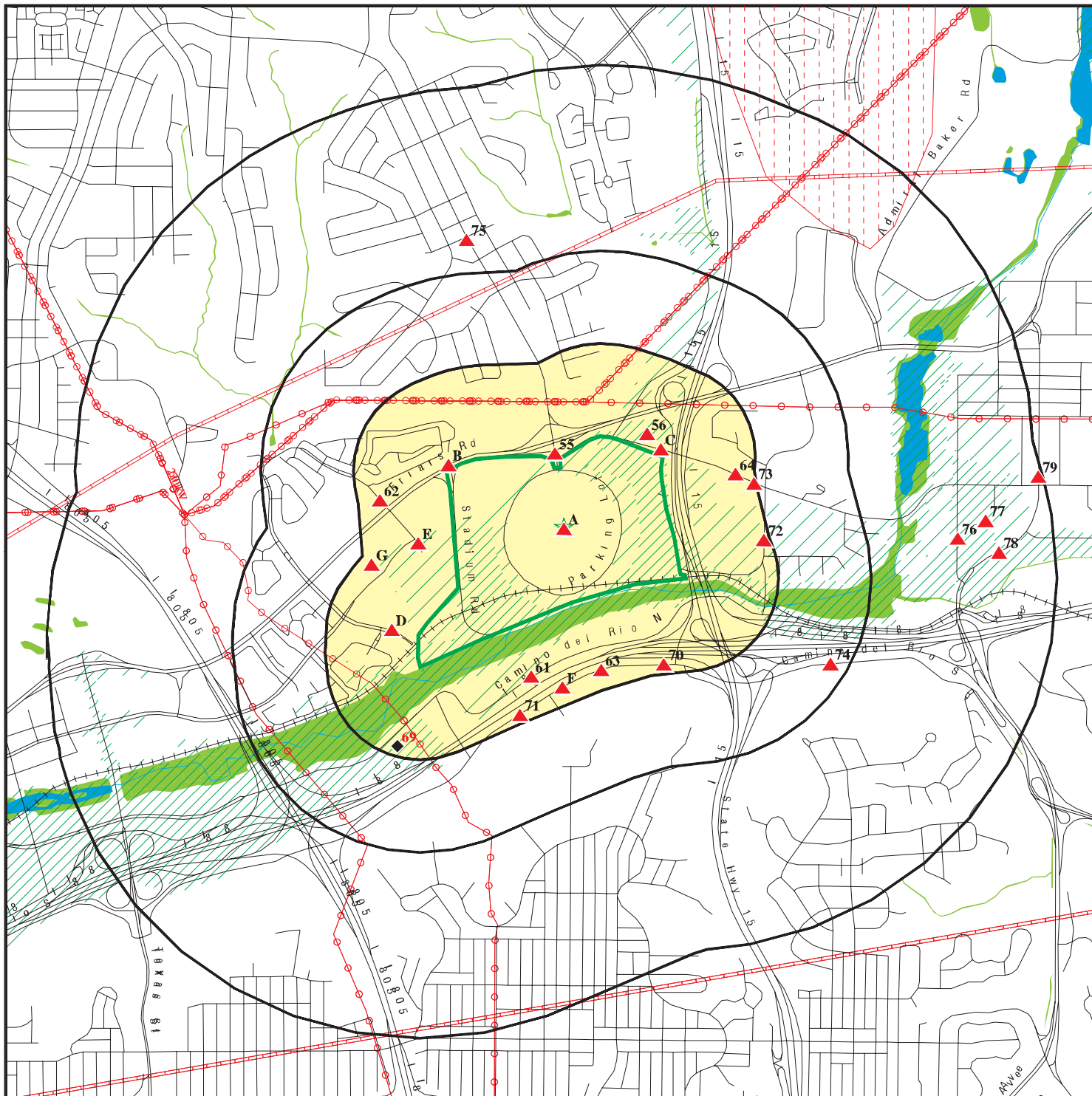
Site Name














CAL-MAT MISSION VALLEY

Database(s)

SAN DIEGO CO. SAM

OVERVIEW MAP - 4337976.2S

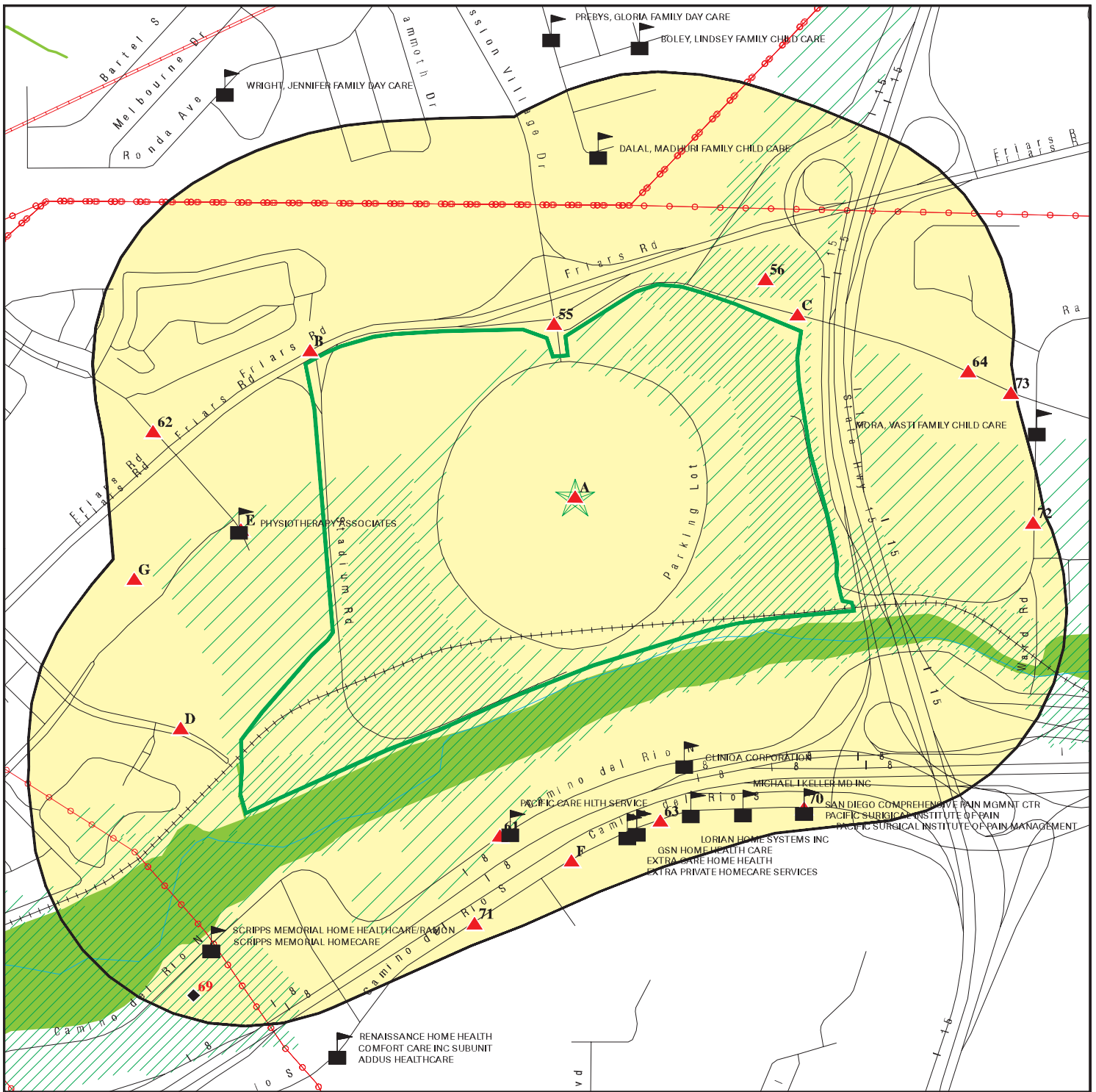


-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Power transmission lines
-  Pipelines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  Areas of Concern

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

<p>SITE NAME: Qualcomm Stadium ADDRESS: 9449 Friars Rd San Diego CA 92108 LAT/LONG: 32.7833 / 117.1197</p>	<p>CLIENT: AECOM CONTACT: Sarah Perhala INQUIRY #: 4337976.2s DATE: June 26, 2015 1:24 pm</p>
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DETAIL MAP - 4337976.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

Areas of Concern



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

SITE NAME: Qualcomm Stadium
 ADDRESS: 9449 Friars Rd
 San Diego CA 92108
 LAT/LONG: 32.7833 / 117.1197

CLIENT: AECOM
 CONTACT: Sarah Perhala
 INQUIRY #: 4337976.2s
 DATE: June 26, 2015 1:25 pm

MAP FINDINGS SUMMARY

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

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SLIC	0.500	2	4	0	1	NR	NR	7
SAN DIEGO CO. SAM	0.500	1	6	0	1	NR	NR	8
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250	1	1	0	NR	NR	NR	2
AST	0.250	1	1	0	NR	NR	NR	2
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
SWRCY	0.500	1	0	0	0	NR	NR	1
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		3	0	0	NR	NR	3
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	1	NR	1
CDL	TP		NR	NR	NR	NR	NR	0
San Diego Co. HMMD	TP	1	NR	NR	NR	NR	NR	1
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		6	1	NR	NR	NR	7
SWEEPS UST	0.250	1	6	2	NR	NR	NR	9
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	TP	5	NR	NR	NR	NR	NR	5
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	1	NR	NR	NR	2
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	1	NR	1
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP	1	NR	NR	NR	NR	NR	1
HIST FTTS	TP	1	NR	NR	NR	NR	NR	1
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
NPDES	TP	1	NR	NR	NR	NR	NR	1
UIC	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500		4	0	0	NR	NR	4
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	1	NR	1
DRYCLEANERS	0.250		1	0	NR	NR	NR	1
WIP	0.250		0	0	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	TP	13	NR	NR	NR	NR	NR	13
EMI	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
<u>EDR HIGH RISK HISTORICAL RECORDS</u>								
<i>EDR Exclusive Records</i>								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		4	5	NR	NR	NR	9
EDR US Hist Cleaners	0.250		1	3	NR	NR	NR	4
<u>EDR RECOVERED GOVERNMENT ARCHIVES</u>								
<i>Exclusive Recovered Govt. Archives</i>								
RGA LUST	TP	1	NR	NR	NR	NR	NR	1
RGA LF	TP		NR	NR	NR	NR	NR	0
- Totals --		32	50	13	2	6	0	103

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1 **UNITED PRESS INTERNATIONAL**
Target **9449 FRIARS RD TRAILER 11**
Property **SAN DIEGO, CA 92108**

HAZNET **S113170066**
N/A

Site 1 of 26 in cluster A

Actual: **64 ft.** HAZNET:
envid: S113170066
Year: 1998
GEPaid: CAP000035600
Contact: U P I
Telephone: 3102303400
Mailing Name: Not reported
Mailing Address: 427 HILL ST
Mailing City,St,Zip: SAN FRANCISCO, CA 941140000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: .2502
Facility County: San Diego

A2 **FELD MOTOR SPORTS**
Target **9449 FRIARS RD**
Property **SAN DIEGO, CA 92108**

HAZNET **S113772525**
N/A

Site 2 of 26 in cluster A

Actual: **64 ft.** HAZNET:
envid: S113772525
Year: 2013
GEPaid: CAC002684685
Contact: BRYAN RICHISON
Telephone: 6305666100
Mailing Name: Not reported
Mailing Address: 10 S 290 HANSLIK CT
Mailing City,St,Zip: NAPERVILLE, IL 60564
Gen County: San Diego
TSD EPA ID: CAT000613893
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.225
Facility County: Not reported

envid: S113772525
Year: 2012
GEPaid: CAC002684685
Contact: BRYAN RICHISON
Telephone: 6305666100
Mailing Name: Not reported
Mailing Address: 10 S 290 HANSLIK CT
Mailing City,St,Zip: NAPERVILLE, IL 60564
Gen County: San Diego
TSD EPA ID: TXD077603371
TSD County: 99
Waste Category: Not reported
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

FELD MOTOR SPORTS (Continued)

S113772525

Tons: 0.1
 Facility County: San Diego

A3
Target
Property

9449 FRIARS ROAD
SAN DIEGO, CA

CHMIRS S100944161
N/A

Site 3 of 26 in cluster A

Actual:
64 ft.

CHMIRS:
 OES Incident Number: '08-1245
 OES notification: 02/11/2008
 OES Date: Not reported
 OES Time: Not reported
 Incident Date: Not reported
Date Completed: Not reported
 Property Use: Not reported
 Agency Id Number: Not reported
 Agency Incident Number: Not reported
 Time Notified: Not reported
 Time Completed: Not reported
 Surrounding Area: Not reported
 Estimated Temperature: Not reported
 Property Management: Not reported
 More Than Two Substances Involved?: Not reported
 Resp Agncy Personel # Of Decontaminated: Not reported
 Responding Agency Personel # Of Injuries: Not reported
 Responding Agency Personel # Of Fatalities: Not reported
 Others Number Of Decontaminated: Not reported
 Others Number Of Injuries: Not reported
 Others Number Of Fatalities: Not reported
 Vehicle Make/year: Not reported
 Vehicle License Number: Not reported
 Vehicle State: Not reported
 Vehicle Id Number: Not reported
 CA DOT PUC/ICC Number: Not reported
 Company Name: Not reported
 Reporting Officer Name/ID: Not reported
 Report Date: Not reported
 Facility Telephone: Not reported
 Waterway Involved: No
 Waterway: Not reported
 Spill Site: Refinery
 Cleanup By: Contractor
 Containment: Not reported
 What Happened: Not reported
 Type: Not reported
 Measure: Gal(s)
 Other: Not reported
 Date/Time: 1215
 Year: 2008
 Agency: Kinder Morgan
 Incident Date: 2/11/2008
 Admin Agency: San Diego County Health Services Dept.
 Amount: Not reported
 Contained: Yes
 Site Type: Not reported
 E Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S100944161

Substance:	Hydrocarbons
Quantity Released:	50
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Drilling caused the release.
OES Incident Number:	'13-2098
OES notification:	04/07/2013
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Storm Drain/unknown waterway
Spill Site:	Road
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S100944161

Measure:	Gal(s)
Other:	Not reported
Date/Time:	1935
Year:	2013
Agency:	San Diego Fire Rescue HazMat 1
Incident Date:	4/7/2013
Admin Agency:	San Diego County Health Services Department
Amount:	Not reported
Contained:	No
Site Type:	Storm Drain/unknown waterway
E Date:	Not reported
Substance:	Denatured Alcohol
Quantity Released:	unknown
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	1
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Per the caller a tanker truck rolled over near Qualcomm Stadium. There are three compartments each with one of the substances for a total of 8,000 gallons. At this time it is unknown which compartment(s) were breached and how much went into the storm drain. The truck driver was injured and transported to the hospital.
OES Incident Number:	05-5121
OES notification:	09/02/2005
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

(Continued)

S100944161

Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	San Diego Waste Water Management
Incident Date:	9/1/2005 12:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Residence
E Date:	Not reported
Substance:	Sewage
Gallons:	103
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Blockage in a private main causing sewage to spill

A4 **SPORTS ILLUSTRATED**
Target **9449 FRIARS RD MEDIA TRAILER 6**
Property **SAN DIEGO, CA 92108**

HAZNET **S113170071**
N/A

Site 4 of 26 in cluster A

Actual: **HAZNET:**
64 ft. envid: S113170071
 Year: 1998
 GEPaid: CAP000035659
 Contact: TIME WARNER INC
 Telephone: 2125223156

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPORTS ILLUSTRATED (Continued)

S113170071

Mailing Name: Not reported
Mailing Address: 1271 6TH AVE RM 19628
Mailing City,St,Zip: NEW YORK, NY 100200000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: .3544
Facility County: San Diego

A5 **NEILSON DILLINGHAM BUILDERS INC**
Target **9449 FRIAR'S RD**
Property **SAN DIEGO, CA 92108**

HAZNET **S112844325**
N/A

Site 5 of 26 in cluster A

Actual:
64 ft.

HAZNET:
envid: S112844325
Year: 1997
GEPaid: CAC000771576
Contact: NEILSON DILLINGHAM BUILDERS IN
Telephone: 6192916330
Mailing Name: Not reported
Mailing Address: PO BOX 80367
Mailing City,St,Zip: SAN DIEGO, CA 921380000
Gen County: Not reported
TSD EPA ID: CAD000088252
TSD County: Not reported
Waste Category: Contaminated soil from site clean-up
Disposal Method: Transfer Station
Tons: .8428
Facility County: San Diego

A6 **CTY SD- J.M. STADIUM**
Target **9449 FRIARS RD**
Property **SAN DIEGO, CA 92108**

SWEEPS UST **S103957300**
N/A

Site 6 of 26 in cluster A

Actual:
64 ft.

SWEEPS UST:
Status: Active
Comp Number: 21360
Number: 9
Board Of Equalization: 44-021803
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021360-000002
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CTY SD- J.M. STADIUM (Continued)

S103957300

Number Of Tanks: 3

Status: Active
Comp Number: 21360
Number: 9
Board Of Equalization: 44-021803
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021360-000003
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 21360
Number: 9
Board Of Equalization: 44-021803
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021360-000004
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

A7 **ASSOCIATED PRESS**
Target **9449 FRIARS RD TRAILER 1**
Property **SAN DIEGO, CA 92108**

HAZNET **S113170065**
N/A

Site 7 of 26 in cluster A

Actual: HAZNET:
64 ft. envid: S113170065
Year: 1998
GEPaid: CAP000035592
Contact: ASSOCIATED PRESS
Telephone: 2126211953
Mailing Name: Not reported
Mailing Address: 350 CAMINO DE LA REINA
Mailing City,St,Zip: SAN DIEGO, CA 921080000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: .5004
Facility County: San Diego

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A8
Target
Property

CITY OF SAN DIEGO
9449 FRIARS RD
SAN DIEGO, CA 92108

HAZNET **S113019920**
N/A

Site 8 of 26 in cluster A

Actual:
64 ft.

HAZNET:

envid: S113019920
Year: 2006
GEPaid: CAH111000319
Contact: DONNA SKINNER
Telephone: 6194925005
Mailing Name: Not reported
Mailing Address: 9601 RIDGEHAVEN CT #320
Mailing City,St,Zip: SAN DIEGO, CA 921231636
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues 10 percent or more
Disposal Method: Recycler
Tons: 0.66
Facility County: San Diego

envid: S113019920
Year: 2006
GEPaid: CAH111000319
Contact: DONNA SKINNER
Telephone: 6194925005
Mailing Name: Not reported
Mailing Address: 9601 RIDGEHAVEN CT #320
Mailing City,St,Zip: SAN DIEGO, CA 921231636
Gen County: Not reported
TSD EPA ID: CAD050806850
TSD County: Not reported
Waste Category: Household waste
Disposal Method: Not reported
Tons: 0.04
Facility County: San Diego

envid: S113019920
Year: 2006
GEPaid: CAH111000319
Contact: DONNA SKINNER
Telephone: 6194925005
Mailing Name: Not reported
Mailing Address: 9601 RIDGEHAVEN CT #320
Mailing City,St,Zip: SAN DIEGO, CA 921231636
Gen County: Not reported
TSD EPA ID: CAD050806850
TSD County: Not reported
Waste Category: Household waste
Disposal Method: Not reported
Tons: 0.07
Facility County: San Diego

envid: S113019920
Year: 2006
GEPaid: CAH111000319
Contact: DONNA SKINNER

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CITY OF SAN DIEGO (Continued)

S113019920

Telephone: 6194925005
Mailing Name: Not reported
Mailing Address: 9601 RIDGEHAVEN CT #320
Mailing City,St,Zip: SAN DIEGO, CA 921231636
Gen County: Not reported
TSD EPA ID: CAD050806850
TSD County: Not reported
Waste Category: Household waste
Disposal Method: Not reported
Tons: 0.11
Facility County: San Diego

envid: S113019920
Year: 2006
GEPaid: CAH111000319
Contact: DONNA SKINNER
Telephone: 6194925005
Mailing Name: Not reported
Mailing Address: 9601 RIDGEHAVEN CT #320
Mailing City,St,Zip: SAN DIEGO, CA 921231636
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 3.16
Facility County: San Diego

[Click this hyperlink](#) while viewing on your computer to access 47 additional CA_HAZNET: record(s) in the EDR Site Report.

A9
Target
Property

MILWAUKEE JOURNAL SETINEL
9449 FRIARS RD MEDIA TRAILER 1
SAN DIEGO, CA 92108

HAZNET **S113170067**
N/A

Site 9 of 26 in cluster A

Actual:
64 ft.

HAZNET:
envid: S113170067
Year: 1998
GEPaid: CAP000035618
Contact: MILWAUKEE JOURNAL SETINEL
Telephone: 4142242608
Mailing Name: Not reported
Mailing Address: 333 W STATE ST
Mailing City,St,Zip: MILWAUKEE, WI 532010000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: .2293
Facility County: San Diego

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

A10 **JACK MURPHY STADIUM**
Target **9449 FRIARS RD**
Property **SAN DIEGO, CA 92108**

FINDS **1016293742**
 N/A

Site 10 of 26 in cluster A

Actual:
64 ft.

FINDS:

Registry ID: 110011660103

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

Registry ID: 110057108133

Environmental Interest/Information System
STATE MASTER

A11 **QUALCOMM STADIUM**
Target **9449 FRIARS RD**
Property **SAN DIEGO, CA 92108**

SAN DIEGO CO. SAM **S107619885**
 N/A

Site 11 of 26 in cluster A

Actual:
64 ft.

SAN DIEGO CO. SAM:

Case Number: H21360-001
Agency: DEH Site Assessment & Mitigation
Funding: **Private - VAP**
Facility Type: Soils Only
Facility Status: Closed Case
Date: 3/15/2007
Date Began: 12/7/2005

A12 **KNIGHT RIDDER TRIBUNE PHOTO SVC**
Target **9449 FRIARS RD QUALCOMM STADIU**
Property **SAN DIEGO, CA 92108**

HAZNET **S113170061**
 N/A

Site 12 of 26 in cluster A

Actual:
64 ft.

HAZNET:

envid: S113170061
Year: 1998
GEPaid: CAP000035535
Contact: KNIGHT RIDDER TRIBUNE PHOTO
Telephone: 2023833736
Mailing Name: Not reported
Mailing Address: 790 NATIONAL PRESS BLDG
Mailing City,St,Zip: WASHINGTON, DC 200450000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

KNIGHT RIDDER TRIBUNE PHOTO SVC (Continued)

S113170061

Tons: .4586
 Facility County: San Diego

A13 Target Property **SAN DIEGO RIVER WETLAND CREATION**
9449 FRIARS ROAD
SAN DIEGO, CA 92108

NPDES S117709898
N/A

Site 13 of 26 in cluster A

Actual:
64 ft.

NPDES:
 Npdes Number: Not reported
 Facility Status: Not reported
 Agency Id: Not reported
 Region: 9
 Regulatory Measure Id: 287725
 Order No: Not reported
 Regulatory Measure Type: Construction
 Place Id: Not reported
 WDID: 9 37C336179
 Program Type: Not reported
 Adoption Date Of Regulatory Measure: Not reported
 Effective Date Of Regulatory Measure: Not reported
 Expiration Date Of Regulatory Measure: Not reported
 Termination Date Of Regulatory Measure: Not reported
 Discharge Name: Not reported
 Discharge Address: Not reported
 Discharge City: Not reported
 Discharge State: Not reported
 Discharge Zip: Not reported
 RECEIVED DATE: 05/09/2008
 PROCESSED DATE: 08/22/2005
 STATUS CODE NAME: Terminated
 STATUS DATE: 06/13/2006
 PLACE SIZE: 14
 PLACE SIZE UNIT: Acres
 FACILITY CONTACT NAME: Ron Agard
 FACILITY CONTACT TITLE: Not reported
 FACILITY CONTACT PHONE: 619-843-5638
 FACILITY CONTACT PHONE EXT: Not reported
 FACILITY CONTACT EMAIL: Not reported
 OPERATOR NAME: San Diego City
 OPERATOR ADDRESS: 9192 Topaz Way
 OPERATOR CITY: San Diego
 OPERATOR STATE: California
 OPERATOR ZIP: 92123
 OPERATOR CONTACT NAME: Richard Grunow
 OPERATOR CONTACT TITLE: Not reported
 OPERATOR CONTACT PHONE: 858-614-5722
 OPERATOR CONTACT PHONE EXT: Not reported
 OPERATOR CONTACT EMAIL: Not reported
 OPERATOR TYPE: City/Town Agency
 DEVELOPER NAME: Arrieta Construction Inc
 DEVELOPER ADDRESS: 1215 N Marshall Ave
 DEVELOPER CITY: El Cajon
 DEVELOPER STATE: California
 DEVELOPER ZIP: 92020
 DEVELOPER CONTACT NAME: Ron Agard
 DEVELOPER CONTACT TITLE: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN DIEGO RIVER WETLAND CREATION (Continued)

S117709898

CONSTYPE LINEAR UTILITY IND: Not reported
EMERGENCY PHONE NO: 619-843-5638
EMERGENCY PHONE EXT: Not reported
CONSTYPE ABOVE GROUND IND: Not reported
CONSTYPE BELOW GROUND IND: Not reported
CONSTYPE CABLE LINE IND: Not reported
CONSTYPE COMM LINE IND: Not reported
CONSTYPE COMMERCIAL IND: Not reported
CONSTYPE ELECTRICAL LINE IND: Not reported
CONSTYPE GAS LINE IND: Not reported
CONSTYPE INDUSTRIAL IND: Not reported
CONSTYPE OTHER DESCRIPTION: Not reported
CONSTYPE OTHER IND: Y
CONSTYPE RECONS IND: Not reported
CONSTYPE RESIDENTIAL IND: Not reported
CONSTYPE TRANSPORT IND: Not reported
CONSTYPE UTILITY DESCRIPTION: Not reported
CONSTYPE UTILITY IND: Not reported
CONSTYPE WATER SEWER IND: Not reported
DIR DISCHARGE USWATER IND: Not reported
RECEIVING WATER NAME: San Diego River
CERTIFIER NAME: Richard Grunow
CERTIFIER TITLE: Senior Planner
CERTIFICATION DATE: 18-AUG-05
PRIMARY SIC: Not reported
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

A14 **ROBBIE GORDON STADIUM SUPER TRUCK**
Target **9449 FRIARS RD**
Property **SAN DIEGO, CA 92108**

HAZNET **S112950118**
N/A

Site 14 of 26 in cluster A

Actual:
64 ft.

HAZNET:
envid: S112950118
Year: 2013
GEPaid: CAC002728728
Contact: JOHN CARLSON
Telephone: 7048048577
Mailing Name: Not reported
Mailing Address: 9449 FRIARS RD
Mailing City,St,Zip: SAN DIEGO, CA 92108
Gen County: San Diego
TSD EPA ID: NED981723513
TSD County: 99
Waste Category: Not reported
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.075
Facility County: Not reported

envid: S112950118
Year: 2013
GEPaid: CAC002728728
Contact: JOHN CARLSON
Telephone: 7048048577
Mailing Name: Not reported
Mailing Address: 9449 FRIARS RD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROBBIE GORDON STADIUM SUPER TRUCK (Continued)

S112950118

Mailing City,St,Zip: SAN DIEGO, CA 92108
Gen County: San Diego
TSD EPA ID: CAT000613893
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery
(H010-H129) Or (H131-H135)
Tons: 0.04
Facility County: Not reported

envid: S112950118
Year: 2005
GEPaid: CAC002598286
Contact: JAMES WELCH
Telephone: 9098772651
Mailing Name: Not reported
Mailing Address: PO BOX 341
Mailing City,St,Zip: BLOOMINGTON, CA 923160341
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Recycler
Tons: 121.36
Facility County: San Diego

envid: S112950118
Year: 2005
GEPaid: CAC002598286
Contact: JAMES WELCH
Telephone: 9098772651
Mailing Name: Not reported
Mailing Address: PO BOX 341
Mailing City,St,Zip: BLOOMINGTON, CA 923160341
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Recycler
Tons: 18.76
Facility County: San Diego

envid: S112950118
Year: 2005
GEPaid: CAC002598286
Contact: JAMES WELCH
Telephone: 9098772651
Mailing Name: Not reported
Mailing Address: PO BOX 341
Mailing City,St,Zip: BLOOMINGTON, CA 923160341
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Alkaline solution without metals pH >= 12.5
Disposal Method: Recycler
Tons: 23.76
Facility County: San Diego

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROBBIE GORDON STADIUM SUPER TRUCK (Continued)

S112950118

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

**A15
Target
Property**

**SDCTY QUALCOMM STADIUM
9449 FRIARS RD
SAN DIEGO, CA 92108**

**HAZNET S113029726
N/A**

Site 15 of 26 in cluster A

**Actual:
64 ft.**

HAZNET:

envid: S113029726
Year: 2013
GEPaid: CAL000022738
Contact: JOY NEWMAN
Telephone: 8585731204
Mailing Name: Not reported
Mailing Address: 9601 RIDGEHAVEN CT
Mailing City,St,Zip: SAN DIEGO, CA 921230000
Gen County: San Diego
TSD EPA ID: CAD008364432
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery
(H010-H129) Or (H131-H135)
Tons: 0.0198
Facility County: Not reported

envid: S113029726
Year: 2013
GEPaid: CAL000022738
Contact: JOY NEWMAN
Telephone: 8585731204
Mailing Name: Not reported
Mailing Address: 9601 RIDGEHAVEN CT
Mailing City,St,Zip: SAN DIEGO, CA 921230000
Gen County: San Diego
TSD EPA ID: CAD008364432
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.0396
Facility County: Not reported

envid: S113029726
Year: 2012
GEPaid: CAL000022738
Contact: JOY NEWMAN
Telephone: 8585731204
Mailing Name: Not reported
Mailing Address: 9601 RIDGEHAVEN CT
Mailing City,St,Zip: SAN DIEGO, CA 921230000
Gen County: San Diego
TSD EPA ID: CAD008364432
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery
(H010-H129) Or (H131-H135)
Tons: 0.043

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

S113029726

Facility County: San Diego

envid: S113029726
 Year: 2012
 GEPAID: CAL000022738
 Contact: JOY NEWMAN
 Telephone: 8585731204
 Mailing Name: Not reported
 Mailing Address: 9601 RIDGEHAVEN CT
 Mailing City,St,Zip: SAN DIEGO, CA 921230000
 Gen County: San Diego
 TSD EPA ID: CAD008364432
 TSD County: Los Angeles
 Waste Category: Not reported
 Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
 Tons: 0.043
 Facility County: San Diego

envid: S113029726
 Year: 2012
 GEPAID: CAL000022738
 Contact: JOY NEWMAN
 Telephone: 8585731204
 Mailing Name: Not reported
 Mailing Address: 9601 RIDGEHAVEN CT
 Mailing City,St,Zip: SAN DIEGO, CA 921230000
 Gen County: San Diego
 TSD EPA ID: CAD008364432
 TSD County: Los Angeles
 Waste Category: Not reported
 Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
 Tons: 0.0495
 Facility County: San Diego

[Click this hyperlink](#) while viewing on your computer to access 163 additional CA_HAZNET: record(s) in the EDR Site Report.

A16
Target
Property

QUALEOMM STADIUM, 9449 FRYERS ROAD
SAN DIEGO, CA

CHMIRS S109047966
N/A

Site 16 of 26 in cluster A

Actual:
64 ft.

CHMIRS:
 OES Incident Number: 07-6374
 OES notification: 10/18/2007
 OES Date: Not reported
 OES Time: Not reported
 Incident Date: Not reported
Date Completed: Not reported
 Property Use: Not reported
 Agency Id Number: Not reported
 Agency Incident Number: Not reported
 Time Notified: Not reported
 Time Completed: Not reported
 Surrounding Area: Not reported
 Estimated Temperature: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

S109047966

Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agency Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2007
Agency:	City of San Diego
Incident Date:	10/18/2007 12:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Unknown
Site Type:	Other
E Date:	Not reported
Substance:	UNK
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	RP States: Found soil contaminated with unknown oil or chemical, adjacent to property. Believed to be dumped illegally. Started to dig up soil and odors were overwhelming. Stopped digging. HAZMAT company called in.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

A17
Target
Property

KODAK
9449 FRIARS RD TRAILER 18
SAN DIEGO, CA 92108

HAZNET **S113170069**
N/A

Site 17 of 26 in cluster A

Actual:
64 ft.

HAZNET:
envid: S113170069
Year: 1998
GEPaid: CAP000035634
Contact: EASTMAN KODAK
Telephone: 7164775265
Mailing Name: Not reported
Mailing Address: 1669 LAKE AVE
Mailing City,St,Zip: ROCHESTER, NY 146500000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: 1.6054
Facility County: San Diego

A18
Target
Property

REUTERS
9449 FRIARS RD TRAILER 8
SAN DIEGO, CA 92108

HAZNET **S113170070**
N/A

Site 18 of 26 in cluster A

Actual:
64 ft.

HAZNET:
envid: S113170070
Year: 1998
GEPaid: CAP000035642
Contact: REUTERS AMERICAN HOLDINGS
Telephone: 2028988333
Mailing Name: Not reported
Mailing Address: 1333 H ST N W
Mailing City,St,Zip: WASHINGTON, DC 200050000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: .2502
Facility County: San Diego

A19
Target
Property

9449 FRIARS ROAD
SAN DIEGO, CA

ERNS **2008862095**
N/A

Site 19 of 26 in cluster A

Actual:
64 ft.

[Click this hyperlink](#) while viewing on your computer to access additional ERNS detail in the EDR Site Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A20 **QUALCOMM STADIUM PARKING LOT NORTHEAST**
Target **9449 FRIARS ROAD**
Property **SAN DIEGO, CA 92108**

SLIC **S108224233**
 N/A

Site 20 of 26 in cluster A

Actual:
64 ft.

SLIC:

Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 02/11/2014
Global Id: T10000004719
Lead Agency: SAN DIEGO COUNTY LOP
Lead Agency Case Number: DEH2013-LSAM-000173
Latitude: 32.7857772620997
Longitude: -117.116467952728
Case Type: Cleanup Program Site
Case Worker: CH
Local Agency: SAN DIEGO COUNTY LOP
RB Case Number: Not reported
File Location: Not reported
Potential Media Affected: Other Groundwater (uses other than drinking water), Soil
Potential Contaminants of Concern: Alcohols, Gasoline
Site History:
On April 25, 2013, DEH received an application for the Voluntary Assistance Program for oversight of investigation of an ethanol spill in the parking lot of Qualcomm Stadium. On April 7, 2013, a tanker containing approximately 8,000 gallons of ethanol with trace (1-5%) gasoline overturned at the intersection of San Diego Mission Road and Mission Village Drive. The spilled ethanol flowed into two areas of the Qualcomm Stadium parking lot, northeast along San Diego Mission Road across from Murphy Canyon Road (area B), and southwest along Mission Village Drive (area A). Approximately 2,000 gallons of ethanol was pumped out of the tanker and approximately 2,500 gallons of ethanol was recovered from puddles in the Qualcomm Stadium parking lot. The remaining approximately 3,500 gallons of ethanol either evaporated, penetrated the surface of the parking lot, and/or entered the storm drain system in area A. On April 10, 2013, two soil samples were collected at 0.5 feet below ground surface (bgs) from each spill area. Ethanol was detected in all four soil samples at a maximum concentration of 7,800 milligrams per kilogram in area A. Additional soil sampling was completed adjacent to the previous soil sampling locations in each area on September 24, 2013. Ethanol was not detected in the area B samples, collected at 0.5 and 1 foot bgs. Ethanol was detected in one of the soil samples from area A, at 63 mg/kg at 0.5 feet bgs and at 36 mg/kg at 1 foot bgs. Ethanol was not detected in this location at 5 feet bgs. The consultant used this data to calculate the half-life of ethanol at the site, which ranged from 13 to 24 days. The consultant concludes that the shallow ethanol impacts to soil at the site are degrading rapidly. On September 24, 2013, soil sampling was also completed adjacent to observed or suspected breaches in the affected portions of the storm drain and in five storm drain catch basins. A total of 18 samples, collected at depths of 4 and 8 feet bgs, were analyzed, and ethanol was not detected in any of the samples. The consultant concludes that there is no evidence of ethanol releases to the subsurface via the storm drain. The ethanol spill occurred in the vicinity of a petroleum release from Kinder Morgan, the Mission Valley Terminal case, which is overseen by the Regional Water Quality Control Board. There are numerous groundwater monitoring wells associated with this case that are installed in the Qualcomm Stadium parking lot. The results of

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QUALCOMM STADIUM PARKING LOT NORTHEAST (Continued)

S108224233

groundwater monitoring indicated that ethanol was detected in one well, R-44AM, at a concentration of 79 micrograms per liter (ug/l) on May 7, 2013. The flow of spilled ethanol passed within approximately 50 feet of well R-44AM. Ethanol was not detected in this well when it was sampled on August 5, 2013. The consultant concludes that ethanol impacted a localized area of shallow groundwater in the vicinity of the spill, and that aerobic and/or anaerobic degradation processes are mitigating groundwater impacts via natural attenuation. Based upon the soil and groundwater sampling data, the consultant recommends no further action to delineate or remediate subsurface impacts associated with the ethanol spill. DEH concurs with the consultants conclusions and recommendations.

[Click here to access the California GeoTracker records for this facility:](#)

A21
Target
Property

**9449 FRIARS RD
 SAN DIEGO, CA 92108**

**CHMIRS S116777466
 N/A**

Site 21 of 26 in cluster A

**Actual:
 64 ft.**

CHMIRS:
 OES Incident Number: 14-0895
 OES notification: 02/13/2014
 OES Date: Not reported
 OES Time: Not reported
 Incident Date: Not reported
Date Completed: Not reported
 Property Use: Not reported
 Agency Id Number: Not reported
 Agency Incident Number: Not reported
 Time Notified: Not reported
 Time Completed: Not reported
 Surrounding Area: Not reported
 Estimated Temperature: Not reported
 Property Management: Not reported
 More Than Two Substances Involved?: Not reported
 Resp Agncy Personel # Of Decontaminated: Not reported
 Responding Agency Personel # Of Injuries: Not reported
 Responding Agency Personel # Of Fatalities: Not reported
 Others Number Of Decontaminated: Not reported
 Others Number Of Injuries: Not reported
 Others Number Of Fatalities: Not reported
 Vehicle Make/year: Not reported
 Vehicle License Number: Not reported
 Vehicle State: Not reported
 Vehicle Id Number: Not reported
 CA DOT PUC/ICC Number: Not reported
 Company Name: Not reported
 Reporting Officer Name/ID: Not reported
 Report Date: Not reported
 Facility Telephone: Not reported
 Waterway Involved: Yes
 Waterway: San Diego River
 Spill Site: Road
 Cleanup By: No
 Containment: Not reported
 What Happened: Not reported

Map ID
 Direction
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 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

(Continued)

S116777466

Type:	Not reported
Measure:	Not reported
Other:	Not reported
Type:	CHEMICAL
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1600
Year:	2014
Agency:	San Diego Fire Rescue Hazmat
Incident Date:	2/13/2014
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Unknown
Site Type:	San Diego River
E Date:	Not reported
Substance:	Flourescein Dye
Quantity Released:	40
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	No
#2 Pipeline:	No
#3 Pipeline:	No
#1 Vessel >= 300 Tons:	No
#2 Vessel >= 300 Tons:	No
#3 Vessel >= 300 Tons:	No
Evacs:	No
Injuries:	Unknown
Fatals:	No
Comments:	Not reported
Description:	Caller states fluorescein dye was coming out of a storm drain mixed with water. Hazmat attempted to locate the source but was unable to locate it. The substance will dry and no clean up will occur.

A22
Target
Property

QUALCOMM STADIUM
9449 FRIARS RD
SAN DIEGO, CA

RGA LUST **S114672979**
N/A

Site 22 of 26 in cluster A

Actual:
64 ft.

RGA LUST:			
	2007	QUALCOMM STADIUM	9449 FRIARS RD
	2006	QUALCOMM STADIUM	9449 FRIARS RD

Map ID
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MAP FINDINGS

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EDR ID Number
EPA ID Number

A23
Target
Property

PARKING LOT, JACK MURPHY STADIUM 9449 FRIARS ROAD
SAN DIEGO, CA 92108

CHMIRS S105638320
N/A

Site 23 of 26 in cluster A

Actual:
64 ft.

CHMIRS:
OES Incident Number: 010944
OES notification: Not reported
OES Date: 11/16/1995
OES Time: 05:30:55 PM
Incident Date: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Facility Telephone: Not reported
Waterway Involved: YES
Waterway: Not reported
Spill Site: Not reported
Cleanup By: herzog const
Containment: Not reported
What Happened: Not reported
Type: OTHER
Measure: Not reported
Other: Not reported
Date/Time: Not reported
Year: 1995
Agency: herzog const
Incident Date: 1630/16nov95
Admin Agency: Not reported
Amount: 1000 gal
Contained: NO
Site Type: OTHER
E Date: Not reported
Substance: dissolved jet fuel (10k ppb)
Unknown: Not reported
Substance #2: Not reported
Substance #3: Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

(Continued)

S105638320

Evacuations:	NO
Number of Injuries:	NO
Number of Fatalities:	NO
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	water pumping overflowed onto lot, cleaned up mtodb enviro health on scene

A24 **SDCTY QUALCOMM STADIUM**
Target **9449 FRIARS RD**
Property **SAN DIEGO, CA 92108**

SWRCY **U003789745**
SLIC **N/A**
UST
AST
CHMIRS
San Diego Co. HMMD

Site 24 of 26 in cluster A

Actual:
64 ft.

SWRCY:

Reg Id:	51841
Cert Id:	RC14685
Mailing Address:	P O Box 80156
Mailing City:	San Diego
Mailing State:	CA
Mailing Zip Code:	92138
Website:	Not reported
Email:	dsaldajeno@urbancorps.org
Phone Number:	(619) 641-3100
Grand Father:	N
Rural:	N
Operation Begin Date:	03/10/2010
Aluminium:	Y
Glass:	Y
Plastic:	Y
Bimetal:	Y
Agency:	N/A
Monday Hours Of Operation:	8:00 am - 3:00 pm
Tuesday Hours Of Operation:	CLOSED
Wednesday Hours Of Operation:	CLOSED
Thursday Hours Of Operation:	8:00 am - 3:00 pm
Friday Hours Of Operation:	8:00 am - 3:00 pm
Saturday Hours Of Operation:	8:00 am - 3:00 pm
Sunday Hours Of Operation:	8:00 am - 3:00 pm
Organization ID:	18834
Organization Name:	Urban Corps of San Diego County

SLIC:

Region:	STATE
Facility Status:	Completed - Case Closed
Status Date:	03/15/2007
Global Id:	T06019753152
Lead Agency:	SAN DIEGO COUNTY LOP

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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Lead Agency Case Number: H21360-001
Latitude: 32.787166
Longitude: -117.118351
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

UST:

Facility ID: H21360
Permitting Agency: SAN DIEGO COUNTY
Latitude: 32.7853703
Longitude: -117.1186805

AST:

Certified Unified Program Agencies: San Diego
Owner: CITY OF SAN DIEGO
Total Gallons: 2050

CHMIRS:

OES Incident Number: 03-1087
OES notification: 02/25/2003
OES Date: Not reported
OES Time: Not reported
Incident Date: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Facility Telephone: Not reported

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Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2003
Agency:	San Diego Co Environmental Health
Incident Date:	2/23/200312:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Merchant/Business
E Date:	Not reported
Substance:	Ammonia
Gallons:	0.000000
Ounces:	9
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	3
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Substance was released due to a leak in the refrigeration unit of a motor home. Note: Injuries were transported to local hospital all where treated. One was hospitalized. Hospitalized patient has since been released.

SAN DIEGO CO. HMMD:

Facility Id:	121360
Business Type:	6HK40
EPA Id Number:	CAL000022738
APN:	433-250-16-00
Last HMMD Inspection:	04/21/2010
Permit Status:	OPEN
Permit Expiration:	06/30/2013
Facility Owner:	CITY OF SAN DIEGO
Facility Address:	9449 FRIARS RD #L48
Facility City:	SAN DIEGO
Facility State:	CA
Facility Zip:	92108-1771
UST Owner:	CITY OF SAN DIEGO
Handle Regulated Hazmat:	Y

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EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Own Or Operate UST: Y
Subject To APSA: Y
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:

UST Name: UNDERGROUND TANK 121360 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 121360
Tank Type: SINGLE WALL
Additional Id: 1
Capacity Gallons: 550
UST Contents: LEADED
Other Content Info: LEADED
Reg Status: REMOVED
Remove Close Date: 1991-02-26 00:00:00
Year Installed: 1968-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 05
UST Monitor Method: SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR

UST Name: UNDERGROUND TANK 121360 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 121360
Tank Type: DOUBLE WALL
Additional Id: NT1524 REGULAR UNLEADED/AT4948
Capacity Gallons: 1000
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: REMOVED
Remove Close Date: 2004-01-16 00:00:00
Year Installed: 1991-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 20
UST Monitor Method: DW TANK DW PRESSURE PIPE W/ SHUT OFF AND ALARM ON LINE LEAK DETECTOR: INTERSTITIAL.

UST Name: UNDERGROUND TANK 121360 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 121360
Tank Type: DOUBLE WALL
Additional Id: NT1524 DIESEL/AT4948
Capacity Gallons: 1000
UST Contents: DIESEL
Other Content Info: DIESEL
Reg Status: REMOVED
Remove Close Date: 2004-01-16 00:00:00
Year Installed: 1991-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 20
UST Monitor Method: DW TANK DW PRESSURE PIPE W/ SHUT OFF AND ALARM ON LINE LEAK DETECTOR: INTERSTITIAL.

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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

UST Name: UNDERGROUND TANK 121360 T004
Last Update: 2012-11-02 14:17:38
Permit Number: 121360
Tank Type: DOUBLE WALL
Additional Id: NT1524 DIESEL/AT4948
Capacity Gallons: 1000
UST Contents: DIESEL
Other Content Info: DIESEL
Reg Status: REMOVED
Remove Close Date: 2004-01-16 00:00:00
Year Installed: 1991-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 20
UST Monitor Method: DW TANK DW PRESSURE PIPE W/ SHUT OFF AND ALARM ON LINE LEAK DETECTOR: INTERSTITIAL.

Active Permits:

Facility Id: 121360
Update Date: 11/02/2012
Case Number: MIXTURE
Name: CHEMSEARCH 777
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 68476-34-6
Name: DIESEL FUEL
Other Information: 1 X 500 AST
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 8006-61-9
Name: GASOLINE
Other Information: 1 X 1000 AST
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: MIXTURE
Name: OPTI-GRO HYDRATURF
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported

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EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Name: WASTE 181 INORGANIC SOLID WASTE (OTHER)
Other Information: BATTERIES:UNIVERSAL WASTE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 134 AQUEOUS SOL'N W/LESS 10% ORG
Other Information: AQUEOUS IMMERSION CLEANER
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 221 WASTE OIL & MIXED OIL
Other Information: USED OIL
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 352 ORGANIC SOLIDS (OTHER)
Other Information: ABSORBANT, SOIL, RAG
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 8002-05-9
Name: OILS, LUBRICATING
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 74-98-6
Name: PROPANE
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 7782-44-7
Name: OXYGEN GAS
Other Information: Not reported
Material Waste: Material

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MAP FINDINGS

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SDCTY QUALCOMM STADIUM (Continued)

U003789745

Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 57-13-6
Name: UREA-BASED FERTILIZER
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 888 USED OIL FILTERS
Other Information: USED OIL & GAS FILTERS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 444 USED BATTERIES
Other Information: BATTERY SYSTEMS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 74-86-2
Name: ACETYLENE GAS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: MIX
Name: ARGON/CARBON DIOXIDE MIX
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: ACUTE

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 107-21-1
Name: ETHYLENE GLYCOL
Other Information: ANTIFREEZE
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

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Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 135 UNSPECIFIED AQUEOUS SOL'N
Other Information: AQUEOUS PARTS WASHER
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 461 PAINT SLUDGE
Other Information: PAINT WASTE, LATEX
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 15245-12-2
Name: AMMONIUM CALCIUM NITRATE
Other Information: CALICINIT
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: mixture
Name: PAINT, WATER BASED LATEX AND FIELD PAINT
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: CHRONIC

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 331 OFF-SPEC,AGED,SURPLUS ORGANICS
Other Information: WASTE AEROSOLS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 541 PHOTOCHEM/PHOTOPROC WASTE
Other Information: USED PHOTOGRAPHIC FIXER WASTE/SAN DIEGO X-RAY
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Violations Active Permits:
Facility Id: 121360
Update Date: 11/02/2012

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SDCTY QUALCOMM STADIUM (Continued)

U003789745

Inspection Date: 06/24/2003
Violation Code: 6HV3255
Violation: SPILL CONTAIN. NOT DRY/IN GOOD CONDITION
Violation Citation: Spill container is not in good condition and/or liquid free.
2635(b)(1), 2636(a)(1)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 04/26/2005
Violation Code: 6HV0135
Violation: MANIFESTS/RECEIPTS FOR 3 YEARS NOT ONSIT
Violation Citation: Hazardous waste manifests/receipts for 3 years are not maintained
onsite to document proper disposal of hazardous waste. CCR 66262.40(a)
& 25160.2(b)(3)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 02/08/2007
Violation Code: 6HV4308
Violation: VSQG:RED BAG >30 DAYS AT >0C ROOM TEMP
Violation Citation: Storage time exceeded for red bag waste, stored greater than 30 days
at greater than 0C room temperature (for generators of <20
pounds/month). 118280(d)(1)(B)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 02/08/2007
Violation Code: 6HV0227
Violation: HAZWASTE TANK/CONTAINER W/O LABEL/DATE
Violation Citation: Failed to properly label/date hazardous waste container &/or tank.
66262.34(f)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 09/03/2008
Violation Code: 6HV1018
Violation: INVENTORY INCOMPLETE/NOT AMENDED
Violation Citation: Inventory not amended for 100% increase of hazardous material onsite
or inventory is incomplete. 25509, 25510
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 04/26/2005
Violation Code: 6HV0202
Violation: WASTE CONTAINER W/O LABELS
Violation Citation: Hazardous waste containers &/or tanks are missing labels, accumulation
date and/or are improperly labeled. CCR 66262.34(a)(2);
66262.34(a)(3) & 66262.34(f)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012

Map ID
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EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Inspection Date: 04/26/2005
Violation Code: 6HV1012
Violation: SPCC PLAN NOT PREPARED
Violation Citation: Spill Prevention Countermeasures & Control Plan not prepared as required. 25270.5 (c)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 02/08/2007
Violation Code: 6HV0307
Violation: ILLEGAL DISPOSAL OF UNIVERSAL WASTE
Violation Citation: Disposal of universal waste to an unauthorized point. 25189.5(a); SQH:66273.11(a); LQH: 66273.31(a)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 09/03/2008
Violation Code: 6HV0407
Violation: EMPLOYEE TRAINING NOT ADEQUATE
Violation Citation: Employee training program for small quantity generator of hazardous waste is inadequate. CFR 262.34(d)(5)(iii)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV3256
Violation: NO FUNCTIONAL DRAIN BOX/BACKUP
Violation Citation: Fill box drain not functional and backup system is not available. 2635(b)(1)(C)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 04/26/2005
Violation Code: 6HV0201
Violation: WASTE CONTAINER NOT CLOSED
Violation Citation: Hazardous waste containers are not kept closed while in storage. CCR 66265.173(a)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 04/26/2005
Violation Code: 6HV0216
Violation: HAZMATS WITHOUT PROPER LABELS
Violation Citation: Hazardous materials have not been adequately labeled within 10 days & are now declared hazardous waste. HSC 25124(b)(3)(A) & 66262.34(f)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 02/08/2007
Violation Code: 6HV0234
Violation: FACILITY NOT OPERATED TO MINIM. RELEASE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Violation Citation: Did not maintain &/or operate facility to prevent release or fire. CFR 265.31
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 09/03/2008
Violation Code: 6HV0135
Violation: MANIFESTS/RECEIPTS FOR 3 YEARS NOT ONSIT
Violation Citation: Hazardous waste manifests/receipts for 3 years are not maintained onsite to document proper disposal of hazardous waste. CCR 66262.40(a) & 25160.2(b)(3)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV3257
Violation: 2NDRY CONTAINMENT NOT LIQUID FREE
Violation Citation: Secondary containment system components not liquid free. 2631(d)(4)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 02/08/2007
Violation Code: 6HV0228
Violation: CONTAINER NOT KEPT CLOSED
Violation Citation: Failed to keep container closed. CFR 265.173
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV0207
Violation: FIRE/EXPLOSION/RELEASE NOT MINIMIZED
Violation Citation: Facility not maintained &/operated to minimize possibility of fire, explosion or release. CCR 66265.31
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 02/08/2007
Violation Code: 6HV4209
Violation: NO GENERATOR'S INFO ON RED BAGS/SHARPS
Violation Citation: Red bags, sharps containers not labeled with generator's name, address, and phone number. 68.1205
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV0136
Violation: NO DISPOSAL RECORDS: BATTERIES
Violation Citation: Generator has not maintained onsite documentation for lead-acid battery disposal. CCR 66266.81(a)(4)(B)
Activity: ACTIVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV3112
Violation: 2NDRY CONT TEST NOT DONE (6/36 MOS.)
Violation Citation: Secondary containment testing not conducted at 6months/36 months.
25284.1; 2637(a)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV3151
Violation: ALL RELEASES NOT REPORTED/RECORDED
Violation Citation: All releases not recorded and/or reported. 25294, 25295, 2650, 2651,
2652
Activity: ACTIVE

Facility Id: 121360
Business Type: 6HK40
EPA Id Number: CAL000022738
APN: 433-250-16-00
Last HMMD Inspection: 04/21/2010
Permit Status: OPEN
Permit Expiration: 06/30/2013
Facility Owner: CITY OF SAN DIEGO
Facility Address: 9449 FRIARS RD #L48
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92108-1771
UST Owner: CITY OF SAN DIEGO
Handle Regulated Hazmat: Y
Own Or Operate UST: Y
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:

UST Name: UNDERGROUND TANK 121360 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 121360
Tank Type: SINGLE WALL
Additional Id: 1
Capacity Gallons: 550
UST Contents: LEADED
Other Content Info: LEADED
Reg Status: REMOVED
Remove Close Date: 1991-02-26 00:00:00
Year Installed: 1968-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 05
UST Monitor Method: SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY
MONTHLY, TANK TEST BIENNIALY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR

UST Name: UNDERGROUND TANK 121360 T002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Last Update: 2012-11-02 14:17:38
Permit Number: 121360
Tank Type: DOUBLE WALL
Additional Id: NT1524 REGULAR UNLEADED/AT4948
Capacity Gallons: 1000
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: REMOVED
Remove Close Date: 2004-01-16 00:00:00
Year Installed: 1991-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 20
UST Monitor Method: DW TANK DW PRESSURE PIPE W/ SHUT OFF AND ALARM ON LINE LEAK DETECTOR: INTERSTITIAL.

UST Name: UNDERGROUND TANK 121360 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 121360
Tank Type: DOUBLE WALL
Additional Id: NT1524 DIESEL/AT4948
Capacity Gallons: 1000
UST Contents: DIESEL
Other Content Info: DIESEL
Reg Status: REMOVED
Remove Close Date: 2004-01-16 00:00:00
Year Installed: 1991-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 20
UST Monitor Method: DW TANK DW PRESSURE PIPE W/ SHUT OFF AND ALARM ON LINE LEAK DETECTOR: INTERSTITIAL.

UST Name: UNDERGROUND TANK 121360 T004
Last Update: 2012-11-02 14:17:38
Permit Number: 121360
Tank Type: DOUBLE WALL
Additional Id: NT1524 DIESEL/AT4948
Capacity Gallons: 1000
UST Contents: DIESEL
Other Content Info: DIESEL
Reg Status: REMOVED
Remove Close Date: 2004-01-16 00:00:00
Year Installed: 1991-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: PRESSURE
Monitor Code: 20
UST Monitor Method: DW TANK DW PRESSURE PIPE W/ SHUT OFF AND ALARM ON LINE LEAK DETECTOR: INTERSTITIAL.

Active Permits:
Facility Id: 121360
Update Date: 11/02/2012
Case Number: MIXTURE
Name: CHEMSEARCH 777
Other Information: Not reported
Material Waste: Material

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 68476-34-6
Name: DIESEL FUEL
Other Information: 1 X 500 AST
Material Waste: Material
Hazardous Categories 1: CHRONIC
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 8006-61-9
Name: GASOLINE
Other Information: 1 X 1000 AST
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: MIXTURE
Name: OPTI-GRO HYDRATURF
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 181 INORGANIC SOLID WASTE (OTHER)
Other Information: BATTERIES:UNIVERSAL WASTE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 134 AQUEOUS SOL'N W/LESS 10% ORG
Other Information: AQUEOUS IMMERSION CLEANER
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 221 WASTE OIL & MIXED OIL
Other Information: USED OIL
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 352 ORGANIC SOLIDS (OTHER)
Other Information: ABSORBANT, SOIL, RAG
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 8002-05-9
Name: OILS, LUBRICATING
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 74-98-6
Name: PROPANE
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 7782-44-7
Name: OXYGEN GAS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 57-13-6
Name: UREA-BASED FERTILIZER
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 888 USED OIL FILTERS
Other Information: USED OIL & GAS FILTERS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Name: WASTE 444 USED BATTERIES
Other Information: BATTERY SYSTEMS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 74-86-2
Name: ACETYLENE GAS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: MIX
Name: ARGON/CARBON DIOXIDE MIX
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: ACUTE

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 107-21-1
Name: ETHYLENE GLYCOL
Other Information: ANTIFREEZE
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 135 UNSPECIFIED AQUEOUS SOL'N
Other Information: AQUEOUS PARTS WASHER
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 461 PAINT SLUDGE
Other Information: PAINT WASTE, LATEX
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: 15245-12-2
Name: AMMONIUM CALCIUM NITRATE
Other Information: CALICINIT
Material Waste: Material

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: mixture
Name: PAINT, WATER BASED LATEX AND FIELD PAINT
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: CHRONIC

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 331 OFF-SPEC,AGED,SURPLUS ORGANICS
Other Information: WASTE AEROSOLS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 121360
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 541 PHOTOCHEM/PHOTOPROC WASTE
Other Information: USED PHOTOGRAPHIC FIXER WASTE/SAN DIEGO X-RAY
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Violations Active Permits:

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV3255
Violation: SPILL CONTAIN. NOT DRY/IN GOOD CONDITION
Violation Citation: Spill container is not in good condition and/or liquid free.
2635(b)(1), 2636(a)(1)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 04/26/2005
Violation Code: 6HV0135
Violation: MANIFESTS/RECEIPTS FOR 3 YEARS NOT ONSIT
Violation Citation: Hazardous waste manifests/receipts for 3 years are not maintained onsite to document proper disposal of hazardous waste. CCR 66262.40(a) & 25160.2(b)(3)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 02/08/2007
Violation Code: 6HV4308
Violation: VSQG:RED BAG >30 DAYS AT >0C ROOM TEMP
Violation Citation: Storage time exceeded for red bag waste, stored greater than 30 days at greater than 0C room temperature (for generators of <20

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

pounds/month). 118280(d)(1)(B)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 02/08/2007
Violation Code: 6HV0227
Violation: HAZWASTE TANK/CONTAINER W/O LABEL/DATE
Violation Citation: Failed to properly label/date hazardous waste container &/or tank. 66262.34(f)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 09/03/2008
Violation Code: 6HV1018
Violation: INVENTORY INCOMPLETE/NOT AMENDED
Violation Citation: Inventory not amended for 100% increase of hazardous material onsite or inventory is incomplete. 25509, 25510
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 04/26/2005
Violation Code: 6HV0202
Violation: WASTE CONTAINER W/O LABELS
Violation Citation: Hazardous waste containers &/or tanks are missing labels, accumulation date and/or are improperly labeled. CCR 66262.34(a)(2); 66262.34(a)(3) & 66262.34(f)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 04/26/2005
Violation Code: 6HV1012
Violation: SPCC PLAN NOT PREPARED
Violation Citation: Spill Prevention Countermeasures & Control Plan not prepared as required. 25270.5 (c)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 02/08/2007
Violation Code: 6HV0307
Violation: ILLEGAL DISPOSAL OF UNIVERSAL WASTE
Violation Citation: Disposal of universal waste to an unauthorized point. 25189.5(a); SQH:66273.11(a); LQH: 66273.31(a)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 09/03/2008
Violation Code: 6HV0407
Violation: EMPLOYEE TRAINING NOT ADEQUATE
Violation Citation: Employee training program for small quantity generator of hazardous waste is inadequate. CFR 262.34(d)(5)(iii)
Activity: ACTIVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV3256
Violation: NO FUNCTIONAL DRAIN BOX/BACKUP
Violation Citation: Fill box drain not functional and backup system is not available.
2635(b)(1)(C)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 04/26/2005
Violation Code: 6HV0201
Violation: WASTE CONTAINER NOT CLOSED
Violation Citation: Hazardous waste containers are not kept closed while in storage. CCR
66265.173(a)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 04/26/2005
Violation Code: 6HV0216
Violation: HAZMATS WITHOUT PROPER LABELS
Violation Citation: Hazardous materials have not been adequately labeled within 10 days &
are now declared hazardous waste. HSC 25124(b)(3)(A) & 66262.34(f)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 02/08/2007
Violation Code: 6HV0234
Violation: FACILITY NOT OPERATED TO MINIM. RELEASE
Violation Citation: Did not maintain &/or operate facility to prevent release or fire. CFR
265.31
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 09/03/2008
Violation Code: 6HV0135
Violation: MANIFESTS/RECEIPTS FOR 3 YEARS NOT ONSIT
Violation Citation: Hazardous waste manifests/receipts for 3 years are not maintained
onsite to document proper disposal of hazardous waste. CCR 66262.40(a)
& 25160.2(b)(3)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV3257
Violation: 2NDRY CONTAINMENT NOT LIQUID FREE
Violation Citation: Secondary containment system components not liquid free. 2631(d)(4)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 02/08/2007

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SDCTY QUALCOMM STADIUM (Continued)

U003789745

Violation Code: 6HV0228
Violation: CONTAINER NOT KEPT CLOSED
Violation Citation: Failed to keep container closed. CFR 265.173
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV0207
Violation: FIRE/EXPLOSION/RELEASE NOT MINIMIZED
Violation Citation: Facility not maintained &/operated to minimize possibility of fire, explosion or release. CCR 66265.31
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 02/08/2007
Violation Code: 6HV4209
Violation: NO GENERATOR'S INFO ON RED BAGS/SHARPS
Violation Citation: Red bags, sharps containers not labeled with generator's name, address, and phone number. 68.1205
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV0136
Violation: NO DISPOSAL RECORDS: BATTERIES
Violation Citation: Generator has not maintained onsite documentation for lead-acid battery disposal. CCR 66266.81(a)(4)(B)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV3112
Violation: 2NDRY CONT TEST NOT DONE (6/36 MOS.)
Violation Citation: Secondary containment testing not conducted at 6months/36 months. 25284.1; 2637(a)
Activity: ACTIVE

Facility Id: 121360
Update Date: 11/02/2012
Inspection Date: 06/24/2003
Violation Code: 6HV3151
Violation: ALL RELEASES NOT REPORTED/RECORDED
Violation Citation: All releases not recorded and/or reported. 25294, 25295, 2650, 2651, 2652
Activity: ACTIVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number
EPA ID Number

A25 **JACK MURPHY STADIUM**
Target **9449 FRIARS RD**
Property **SAN DIEGO, CA 92108**

FTTS **1004443440**
HIST FTTS **N/A**

Site 25 of 26 in cluster A

Actual:
64 ft.

FTTS INSP:
Inspection Number: 1988022404947 2
Region: 09
Inspection Date: 02/24/88
Inspector: CZAJKOWSKI
Violation occurred: Yes
Investigation Type: Section 6 PCB Federal Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

HIST FTTS INSP:
Inspection Number: 1988022404947 2
Region: 09
Inspection Date: Not reported
Inspector: CZAJKOWSKI
Violation occurred: Yes
Investigation Type: Section 6 PCB Federal Conducted
Investigation Reason: Neutral Scheme, Region
Legislation Code: TSCA
Facility Function: User

A26 **AGENCE FRANCE PRESS**
Target **9449 FRIARS RD MEDIA TRAILER 9**
Property **SAN DIEGO, CA 92108**

HAZNET **S113170072**
N/A

Site 26 of 26 in cluster A

Actual:
64 ft.

HAZNET:
envid: S113170072
Year: 1998
GEPaid: CAP000035667
Contact: AGENCE FRANCE PRESS
Telephone: 3055731816
Mailing Name: Not reported
Mailing Address: 3550 BISCAYNE BLVD NO 700
Mailing City,St,Zip: MIAMI, FL 331370000
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: .2502
Facility County: San Diego

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOD
Region
NE
1/2-1
4021 ft.

MIRAMAR NAVAL AIR STATION
MIRAMAR NAVAL AIR STATION (County), CA

DOD **CUSA145460**
N/A

DOD:

Feature 1: Navy DOD
Feature 2: Not reported
Feature 3: Not reported
URL: Not reported
Name 1: Miramar Naval Air Station
Name 2: Not reported
Name 3: Not reported
State: CA
DOD Site: Yes
Tile name: CASAN_DIEGO

B27
< 1/8
0.001 mi.
3 ft.

H G FENTON MATERIAL CO
7400 MURRAY CANYON RD
SAN DIEGO, CA 92108
Site 1 of 8 in cluster B

SLIC **S104749710**
SWEEPS UST **N/A**
San Diego Co. HMMD
SAN DIEGO CO. SAM

Relative:
Higher

SLIC:

Region: STATE
Facility Status: Completed - Case Closed
Status Date: 04/14/1998
Global Id: T0608155308
Lead Agency: SAN DIEGO COUNTY LOP
Lead Agency Case Number: H21131-001
Latitude: 32.775565
Longitude: -117.158028
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

Actual:
113 ft.

[Click here to access the California GeoTracker records for this facility:](#)

SWEEPS UST:

Status: Not reported
Comp Number: 21131
Number: Not reported
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021131-000001
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

H G FENTON MATERIAL CO (Continued)

S104749710

Content: OTHER
Number Of Tanks: 2

Status: Not reported
Comp Number: 21131
Number: Not reported
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-021131-000002
Tank Status: Not reported
Capacity: 4000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: OTHER
Number Of Tanks: Not reported

SAN DIEGO CO. HMMD:

Facility Id: 121131
Business Type: 6HK03
EPA Id Number: Not reported
APN: 677-390-07-00
Last HMMD Inspection: Not reported
Permit Status: INAC
Permit Expiration: 11/30/2002
Facility Owner: H G FENTON MATERIAL CO
Facility Address: P O BOX 64
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92112-4101
UST Owner: H G FENTON MATERIAL CO
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Not reported
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:

UST Name: UNDERGROUND TANK 121131 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 121131
Tank Type: SINGLE WALL
Additional Id: MC-D1
Capacity Gallons: 10000
UST Contents: DIESEL
Other Content Info: DIESEL
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: 1958-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

H G FENTON MATERIAL CO (Continued)

S104749710

ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 121131 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 121131
Tank Type: SINGLE WALL
Additional Id: MC-D2
Capacity Gallons: 4000
UST Contents: DIESEL
Other Content Info: DIESEL
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: 1958-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

SAN DIEGO CO. SAM:

Case Number: H21131-001
Agency: DEH Site Assessment & Mitigation
Funding: Private - VAP
Facility Type: Drinking Water Aquifer Impacted
Facility Status: Closed Case
Date: 4/14/1998
Date Began: 7/22/1988

B28
WNW
< 1/8
0.011 mi.
58 ft.

MISSION VALLEY PLANT
9300 FRIARS RD
SAN DIEGO, CA 92120
Site 2 of 8 in cluster B

HIST CORTESE **S101301997**
LUST **N/A**
SLIC
SWEEPS UST
ENF
San Diego Co. HMMD
SAN DIEGO CO. SAM

Relative:
Higher

Actual:
129 ft.

HIST CORTESE:

Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT2493

Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT3137

LUST:

Region: STATE
Global Id: T0607301905
Latitude: 32.7864594
Longitude: -117.1215128
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 03/09/2000
Lead Agency: SAN DIEGO COUNTY LOP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT3137
LOC Case Number: H02325-002
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Status History:

Global Id: T0607301905
Status: Completed - Case Closed
Status Date: 03/09/2000

Global Id: T0607301905
Status: Open - Case Begin Date
Status Date: 08/18/1994

Regulatory Activities:

Global Id: T0607301905
Action Type: Other
Date: 08/18/1994
Action: Leak Began

Global Id: T0607301905
Action Type: Other
Date: 08/18/1994
Action: Leak Discovery

Global Id: T0607301905
Action Type: Other
Date: 08/18/1994
Action: Leak Stopped

Global Id: T0607301905
Action Type: ENFORCEMENT
Date: 11/29/1995
Action: Notice of Responsibility

Global Id: T0607301905
Action Type: Other
Date: 08/18/1994
Action: Leak Reported

Region: STATE
Global Id: T0607301245
Latitude: 32.7864594
Longitude: -117.1215128
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/19/2000
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

RB Case Number: 9UT2493
LOC Case Number: H02325-001
File Location: Local Agency
Potential Media Affect: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Status History:

Global Id: T0607301245
Status: Completed - Case Closed
Status Date: 05/19/2000

Global Id: T0607301245
Status: Open - Case Begin Date
Status Date: 07/26/1993

Regulatory Activities:

Global Id: T0607301245
Action Type: ENFORCEMENT
Date: 07/26/1993
Action: Notice of Responsibility

Region: STATE
Global Id: T0607399247
Latitude: 32.7864594
Longitude: -117.1215128
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 03/09/2000
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT4064
LOC Case Number: H02325-003
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Status History:

Global Id: T0607399247
Status: Completed - Case Closed
Status Date: 03/09/2000

Global Id: T0607399247
Status: Open - Case Begin Date
Status Date: 08/31/1995

Regulatory Activities:

Global Id: T0607399247
Action Type: Other
Date: 08/31/1995

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

Action: Leak Began

Global Id: T0607399247
Action Type: Other
Date: 08/31/1995
Action: Leak Discovery

Global Id: T0607399247
Action Type: Other
Date: 08/31/1995
Action: Leak Stopped

Global Id: T0607399247
Action Type: ENFORCEMENT
Date: 11/29/1995
Action: Notice of Responsibility

Global Id: T0607399247
Action Type: Other
Date: 08/31/1995
Action: Leak Reported

LUST REG 9:

Region: 9
Status: Case Closed
Case Number: 9UT2950
Local Case: H21130-002
Substance: Diesel
Qty Leaked: 0
Abate Method: Not reported
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 06/21/1993
Date Stopped: 06/21/1993
Confirm Date: / /
Submit Workplan: Not reported
Prelim Assess: / /
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: 6/23/93
Began Monitor: Not reported
Release Date: 06/21/1993
Enforce Date: Not reported
Closed Date: 6/23/93
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 907.11
GW Depth: Not reported
Beneficial Use: Municipal groundwater use
NPDES Number: Not reported
Priority: Low priority. Priority ranking can change over time.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

SLIC:

Region: STATE
Facility Status: Completed - Case Closed
Status Date: 03/09/2000
Global Id: T0608197271
Lead Agency: SAN DIEGO COUNTY LOP
Lead Agency Case Number: H02325-004
Latitude: 32.785665
Longitude: -117.125304
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

SWEEPS UST:

Status: Active
Comp Number: 2325
Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-002325-000001
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: 13

Status: Active
Comp Number: 2325
Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-002325-000002
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

STG: P
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 2325
Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-002325-000003
Tank Status: A
Capacity: 12000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 2325
Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-002325-000004
Tank Status: A
Capacity: 12000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 2325
Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-002325-000005
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: Not reported

Status: Active
Comp Number: 2325

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-002325-000006
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 2325
Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-002325-000008
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: CHEMICAL
STG: P
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 2325
Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-002325-000009
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: PETROLEUM
STG: P
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 2325
Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

SWRCB Tank Id: 37-000-002325-000010
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: PETROLEUM
STG: P
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 2325
Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-002325-000011
Tank Status: A
Capacity: 4000
Active Date: Not reported
Tank Use: OIL
STG: P
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 2325
Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-002325-000012
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: OIL
STG: P
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 2325
Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-002325-000013
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: OIL
STG: P

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 2325
Number: 9
Board Of Equalization: 44-021669
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-002325-000014
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: PETROLEUM
STG: W
Content: Not reported
Number Of Tanks: Not reported

ENF:

Region: 9
Facility Id: 240981
Agency Name: Not reported
Place Type: Facility
Place Subtype: Not reported
Facility Type: Industrial
Agency Type: Not reported
Of Agencies: Not reported
Place Latitude: 32.791103
Place Longitude: -117.098373
SIC Code 1: 1442
SIC Desc 1: Construction Sand and Gravel
SIC Code 2: 3273
SIC Desc 2: Ready-Mixed Concrete
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported
NAICS Desc 1: Not reported
NAICS Code 2: Not reported
NAICS Desc 2: Not reported
NAICS Code 3: Not reported
NAICS Desc 3: Not reported
Of Places: 1
Source Of Facility: Enf Action
Design Flow: Not reported
Threat To Water Quality: Not reported
Complexity: Not reported
Pretreatment: Not reported
Facility Waste Type: Not reported
Facility Waste Type 2: Not reported
Facility Waste Type 3: Not reported
Facility Waste Type 4: Not reported
Program: Not reported
Program Category1: Not reported
Program Category2: WDR
Of Programs: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	242740
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	06/17/2003
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	06/17/2003
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000000630
Description:	2002 O&M Procedures certification statement not signed.
Program:	WDR
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240981
Agency Name:	Not reported
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Industrial

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.791103
Place Longitude:	-117.098373
SIC Code 1:	1442
SIC Desc 1:	Construction Sand and Gravel
SIC Code 2:	3273
SIC Desc 2:	Ready-Mixed Concrete
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	WDR
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

Enforcement Id(EID): 241375
Region: 9
Order / Resolution Number: UNKNOWN
Enforcement Action Type: Oral Communication
Effective Date: 03/29/2002
Adoption/Issuance Date: Not reported
Achieve Date: Not reported
Termination Date: 03/29/2002
ACL Issuance Date: Not reported
EPL Issuance Date: Not reported
Status: Historical
Title: Enforcement - 9 000000630
Description: Annual fee invoice returned to State Board. Regional Board called facility for their correct address. A Form X was completed and SWIM will be updated.

Program: WDR
Latest Milestone Completion Date: Not reported
Of Programs1: 1
Total Assessment Amount: 0.00
Initial Assessed Amount: 0.00
Liability \$ Amount: 0.00
Project \$ Amount: 0.00
Liability \$ Paid: 0.00
Project \$ Completed: 0.00
Total \$ Paid/Completed Amount: 0.00

SAN DIEGO CO. HMMD:

Facility Id: 102325
Business Type: Not reported
EPA Id Number: CAD981462625
APN: 433-280-14-00
Last HMMD Inspection: 07/09/1998
Permit Status: INAC
Permit Expiration: Not reported
Facility Owner: H G FENTON MATERIAL
Facility Address: P O BOX 64
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92112-4101
UST Owner: H G FENTON MATERIAL
Handle Regulated Hazmat: Y
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:

UST Name: UNDERGROUND TANK 102325 T005
Last Update: 2012-11-02 14:17:38
Permit Number: 102325
Tank Type: SINGLE WALL
Additional Id: MV-D5
Capacity Gallons: 10000
UST Contents: DIESEL
Other Content Info: DIESEL
Reg Status: REMOVED

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

Remove Close Date: 1993-06-29 00:00:00
Year Installed: 1974-01-01 00:00:00
Pipe Type: Not reported
Delivery System: SUCTION
Monitor Code: 05
UST Monitor Method: SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR

UST Name: UNDERGROUND TANK 102325 T006
Last Update: 2012-11-02 14:17:38
Permit Number: 102325
Tank Type: SINGLE WALL
Additional Id: MV-G2
Capacity Gallons: 10000
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: REMOVED
Remove Close Date: 1993-06-29 00:00:00
Year Installed: 1974-01-01 00:00:00
Pipe Type: Not reported
Delivery System: SUCTION
Monitor Code: 05
UST Monitor Method: SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALLY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR

UST Name: UNDERGROUND TANK 102325 T008
Last Update: 2012-11-02 14:17:38
Permit Number: 102325
Tank Type: SINGLE WALL
Additional Id: MV-S1 DEGREASING SOLVENT
Capacity Gallons: 1000
UST Contents: Not reported
Other Content Info: DEGREASING SOLVENT
Reg Status: REMOVED
Remove Close Date: 1993-06-29 00:00:00
Year Installed: 1958-01-01 00:00:00
Pipe Type: Not reported
Delivery System: SUCTION
Monitor Code: 07
UST Monitor Method: SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

UST Name: UNDERGROUND TANK 102325 T009
Last Update: 2012-11-02 14:17:38
Permit Number: 102325
Tank Type: SINGLE WALL
Additional Id: MV-01
Capacity Gallons: 1000
UST Contents: Not reported
Other Content Info: WASTE OIL
Reg Status: REMOVED
Remove Close Date: 1993-06-29 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: Not reported
Delivery System: SUCTION
Monitor Code: 07
UST Monitor Method: SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

UST Name: UNDERGROUND TANK 102325 T010
Last Update: 2012-11-02 14:17:38
Permit Number: 102325
Tank Type: SINGLE WALL
Additional Id: MV-02
Capacity Gallons: 1000
UST Contents: Not reported
Other Content Info: WASTE OIL
Reg Status: REMOVED
Remove Close Date: 1993-06-29 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: Not reported
Delivery System: SUCTION
Monitor Code: 07
UST Monitor Method: SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

UST Name: UNDERGROUND TANK 102325 T011
Last Update: 2012-11-02 14:17:38
Permit Number: 102325
Tank Type: SINGLE WALL
Additional Id: MV-03
Capacity Gallons: 4000
UST Contents: Not reported
Other Content Info: MOTOR OIL
Reg Status: REMOVED
Remove Close Date: 1993-06-29 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: Not reported
Delivery System: SUCTION
Monitor Code: 07
UST Monitor Method: SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

UST Name: UNDERGROUND TANK 102325 T012
Last Update: 2012-11-02 14:17:38
Permit Number: 102325
Tank Type: SINGLE WALL
Additional Id: MV-W01
Capacity Gallons: 1000
UST Contents: Not reported
Other Content Info: MOTOR OIL
Reg Status: REMOVED
Remove Close Date: 1993-06-29 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 07
UST Monitor Method: SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

UST Name: UNDERGROUND TANK 102325 T013
Last Update: 2012-11-02 14:17:38
Permit Number: 102325
Tank Type: SINGLE WALL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

Additional Id: MVS-22 SOLVENT
Capacity Gallons: 1000
UST Contents: Not reported
Other Content Info: MOTOR OIL
Reg Status: REMOVED
Remove Close Date: 1993-06-29 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 07
UST Monitor Method: SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

UST Name: UNDERGROUND TANK 102325 T014
Last Update: 2012-11-02 14:17:38
Permit Number: 102325
Tank Type: SINGLE WALL
Additional Id: MVW02
Capacity Gallons: 1000
UST Contents: Not reported
Other Content Info: WASTE OIL
Reg Status: REMOVED
Remove Close Date: 1993-06-29 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: SUCTION
Monitor Code: 07
UST Monitor Method: SW TANK SW PRESSURE PIPE W/RESTRICTIVE LLD W/DAILY RECONCILIATION OR WEEKLY GAUGING: TANK AND PIPE TEST ANNUALLY

SAN DIEGO CO. SAM:

Case Number: H02325-001
Agency: DEH Site Assessment & Mitigation
Funding: LOP - Federal Fund
Facility Type: Soils Only
Facility Status: Closed Case
Date: 5/19/2000
Date Began: 7/29/1993

Case Number: H02325-002
Agency: DEH Site Assessment & Mitigation
Funding: LOP - Federal Fund
Facility Type: Soils Only
Facility Status: Closed Case
Date: 3/9/2000
Date Began: 8/18/1994

Case Number: H02325-003
Agency: DEH Site Assessment & Mitigation
Funding: LOP - Federal Fund
Facility Type: Soils Only
Facility Status: Closed Case
Date: 3/9/2000
Date Began: 8/31/1995

Case Number: H02325-004

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S101301997

Agency: DEH Site Assessment & Mitigation
Funding: **Private - VAP**
Facility Type: Drinking Water Aquifer Impacted
Facility Status: Closed Case
Date: 3/9/2000
Date Began: 11/20/1998

B29
WNW
< 1/8
0.011 mi.
58 ft.

H G FENTON MATERIAL CO
9310 FRIARS RD
SAN DIEGO, CA 92108

San Diego Co. HMMD S105539613
SAN DIEGO CO. SAM N/A

Site 3 of 8 in cluster B

Relative:
Higher

SAN DIEGO CO. HMMD:

Facility Id: 121130
Business Type: 6HK03
EPA Id Number: Not reported
APN: DEH-121130
Last HMMD Inspection: Not reported
Permit Status: INAC
Permit Expiration: Not reported
Facility Owner: H G FENTON MATERIAL CO
Facility Address: P O BOX 64
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92112-4101
UST Owner: H G FENTON MATERIAL CO
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Not reported
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

Actual:
129 ft.

UST:

UST Name: UNDERGROUND TANK 121130 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 121130
Tank Type: UNKNOWN
Additional Id: MVP-D6
Capacity Gallons: 10000
UST Contents: DIESEL
Other Content Info: DIESEL
Reg Status: REMOVED
Remove Close Date: 1993-06-21 00:00:00
Year Installed: 1968-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: Not reported
Monitor Code: 10
UST Monitor Method: SW TANK DW PRESSURE PIPE W/POS SHUTOFF LLD W/DAILY RECONCILE OR WEEKLY GAUGE: TNK TEST ANN, PIPE TEST ANN 0.1 GAL/HR OR MO 0.2 GAL/HR

SAN DIEGO CO. SAM:

Case Number: H21130-001
Agency: CA Regional Water Quality Control Board
Funding: **Private - VAP**
Facility Type: Soils Only

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

H G FENTON MATERIAL CO (Continued)

S105539613

Facility Status: Closed Case
 Date: 1/17/1996
 Date Began: 4/6/1994

Case Number: H21130-002
 Agency: DEH Site Assessment & Mitigation
Funding: LOP - Federal Fund
 Facility Type: Soils Only
 Facility Status: Closed Case
 Date: 6/23/1993
 Date Began: 6/21/1993

B30
WNW
 < 1/8
 0.011 mi.
 58 ft.

SHEWEY ENVIRONMENT FACILITY
9310 FRIARS RD
SAN DIEGO CA, CA 92108

WMUDS/SWAT S102267018
N/A

Site 4 of 8 in cluster B

Relative:
Higher

WMUDS/SWAT:
 Edit Date: Not reported
 Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.

Primary Waste: CNSOIL
 Primary Waste Type: Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.

Secondary Waste: Not reported
 Secondary Waste Type: Not reported
 Base Meridian: Not reported
 NPID: Not reported
 Tonnage: 0
 Regional Board ID: Not reported
 Municipal Solid Waste: False
 Superorder: False
 Open To Public: False
 Waste List: False
 Agency Type: Private
 Agency Name: SHEWEY ENVIRONMENTAL MGMT
 Agency Department: Not reported
 Agency Address: 7220 TRADE ST
 Agency City,St,Zip: SAN DIEGO CA 92112
 Agency Contact: PAUL SMITH
 Agency Telephone: 6195662000
 Land Owner Name: Not reported
 Land Owner Address: Not reported
 Land Owner City,St,Zip: Not reported
 Land Owner Contact: Not reported
 Land Owner Phone: Not reported
 Region: 9
 Facility Type: Solid Waste Site-Class II - A solid waste facility at which designated wastes may be treated or stored.

Facility Description: Not reported
 Facility Telephone: Not reported
 SWAT Facility Name: Not reported

Actual:
129 ft.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SHEWEY ENVIRONMENT FACILITY (Continued)

S102267018

Primary SIC: 4953
 Secondary SIC: Not reported
 Comments: Not reported
 Last Facility Editors: Not reported
 Waste Discharge System: True
 Solid Waste Assessment Test Program: False
 Toxic Pits Cleanup Act Program: False
 Resource Conservation Recovery Act: False
 Department of Defence: False
 Solid Waste Assessment Test Program: Not reported
 Threat to Water Quality: Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.

Sub Chapter 15: True
 Regional Board Project Officer: DFH
 Number of WMUDS at Facility: 1
 Section Range: Not reported
 RCRA Facility: No
 Waste Discharge Requirements: I
 Self-Monitoring Rept. Frequency: Irregular Submittal
 Waste Discharge System ID: 9 000000628
 Solid Waste Information ID: Not reported

B31
WNW
 < 1/8
 0.011 mi.
 58 ft.

CLASS 2 SOIL TRTMENT FACILITY
9310 FRIARS RD
SAN DIEGO, CA 92168
 Site 5 of 8 in cluster B

HIST CORTESE **S102005503**
LUST **N/A**
LDS
ENF
WMUDS/SWAT

Relative:
Higher

HIST CORTESE:
 Region: CORTESE
 Facility County Code: 37
 Reg By: LTNKA
 Reg Id: 9UT2950

Actual:
129 ft.

Region: CORTESE
 Facility County Code: 37
 Reg By: WBC&D
 Reg Id: 9 000000628

LUST:
 Region: STATE
 Global Id: T0607301717
 Latitude: 32.7864876
 Longitude: -117.1213576
 Case Type: LUST Cleanup Site
 Status: Completed - Case Closed
 Status Date: 06/23/1993
 Lead Agency: SAN DIEGO COUNTY LOP
 Case Worker: Not reported
 Local Agency: Not reported
 RB Case Number: 9UT2950
 LOC Case Number: H21130-002
 File Location: Local Agency
 Potential Media Affect: Soil

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLASS 2 SOIL TRTMENT FACILITY (Continued)

S102005503

Potential Contaminants of Concern: Diesel
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Status History:

Global Id: T0607301717
Status: Completed - Case Closed
Status Date: 06/23/1993

Global Id: T0607301717
Status: Open - Case Begin Date
Status Date: 06/21/1993

Regulatory Activities:

Global Id: T0607301717
Action Type: Other
Date: 06/21/1993
Action: Leak Began

Global Id: T0607301717
Action Type: Other
Date: 06/21/1993
Action: Leak Discovery

Global Id: T0607301717
Action Type: Other
Date: 06/21/1993
Action: Leak Stopped

Global Id: T0607301717
Action Type: Other
Date: 06/21/1993
Action: Leak Reported

LDS:

Global Id: L10003934287
Latitude: 32.78269
Longitude: -117.1337
Case Type: Land Disposal Site
Status: Completed - Case Closed
Status Date: 03/17/2005
Lead Agency: SAN DIEGO RWQCB (REGION 9)
Caseworker: CLC
Local Agency: Not reported
RB Case Number: 9 000000655
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Not reported
EDR Link ID: L10003934287
Potential Contaminants of Concern: Not reported
Site History: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLASS 2 SOIL TRTMENT FACILITY (Continued)

S102005503

[Click here to access the California GeoTracker records for this facility:](#)

Global Id: L10002398978
Latitude: 32.78579
Longitude: -117.1250
Case Type: Land Disposal Site
Status: Completed - Case Closed
Status Date: 03/17/2005
Lead Agency: SAN DIEGO RWQCB (REGION 9)
Caseworker: CLC
Local Agency: Not reported
RB Case Number: 9 000000628
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Not reported
EDR Link ID: L10002398978
Potential Contaminants of Concern: Not reported
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

ENF:

Region: 9
Facility Id: 214741
Agency Name: Not reported
Place Type: Facility
Place Subtype: Not reported
Facility Type: Solid Waste Class II - designated wastes
Agency Type: Not reported
Of Agencies: Not reported
Place Latitude: Not reported
Place Longitude: Not reported
SIC Code 1: 9511
SIC Desc 1: Air and Water Resource and Solid Waste Management
SIC Code 2: Not reported
SIC Desc 2: Not reported
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported
NAICS Desc 1: Not reported
NAICS Code 2: Not reported
NAICS Desc 2: Not reported
NAICS Code 3: Not reported
NAICS Desc 3: Not reported
Of Places: 1
Source Of Facility: Enf Action
Design Flow: Not reported
Threat To Water Quality: Not reported
Complexity: Not reported
Pretreatment: Not reported
Facility Waste Type: Not reported
Facility Waste Type 2: Not reported
Facility Waste Type 3: Not reported
Facility Waste Type 4: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CLASS 2 SOIL TRTMENT FACILITY (Continued)

S102005503

Program:	Not reported
Program Category1:	Not reported
Program Category2:	LNDISP
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	234568
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Notice of Violation
Effective Date:	10/19/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	11/21/2000
Termination Date:	10/19/2000
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000000655
Description:	NOV No. 2000-247. Failure to have appropriate cover of soil per WDR 95-59 Requirement B.21.d.4.
Program:	LNDISP
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLASS 2 SOIL TRTMENT FACILITY (Continued)

S102005503

Facility Id:	214741
Agency Name:	Not reported
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Solid Waste Class II - designated wastes
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	9511
SIC Desc 1:	Air and Water Resource and Solid Waste Management
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	LNDISP
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLASS 2 SOIL TRTMENT FACILITY (Continued)

S102005503

WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	234567
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Notice of Violation
Effective Date:	10/19/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	11/21/2000
Termination Date:	10/19/2000
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000000655
Description:	NOV No. 2000-248. Failure to submit report per 13267 letter dated August 22, 2000.
Program:	LNDISP
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	214741
Agency Name:	Not reported
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Solid Waste Class II - designated wastes
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	9511
SIC Desc 1:	Air and Water Resource and Solid Waste Management
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CLASS 2 SOIL TRTMENT FACILITY (Continued)

S102005503

Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	LNDISP
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	234566
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	08/22/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	11/21/2000
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000000655
Description:	13267 letter sent regarding disposal of soil at 15596 Sleepy Creek Road. Disposal site needs to comply with WDRs (Order No. 95-59) including covering material with engineered materials(e.g. road or building) or not less than 2 feet of clean fill.
Program:	LNDISP
Latest Milestone Completion Date:	11/21/2000
# Of Programs1:	1
Total Assessment Amount:	0.00

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLASS 2 SOIL TRTMENT FACILITY (Continued)

S102005503

Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	256792
Agency Name:	Not reported
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Solid Waste Class II - designated wastes
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.785763
Place Longitude:	-117.125091
SIC Code 1:	4953
SIC Desc 1:	Refuse Systems
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	LNDISP
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLASS 2 SOIL TRTMENT FACILITY (Continued)

S102005503

Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	220337
Region:	9
Order / Resolution Number:	97-022
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	03/14/1997
Adoption/Issuance Date:	Not reported
Achieve Date:	11/10/1999
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000000628
Description:	UNKNOWN
Program:	LNDISP
Latest Milestone Completion Date:	11/10/1999
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	214741
Agency Name:	Not reported
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Solid Waste Class II - designated wastes
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	9511
SIC Desc 1:	Air and Water Resource and Solid Waste Management
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLASS 2 SOIL TRTMENT FACILITY (Continued)

S102005503

NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	LNDISP
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	235679
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Notice of Violation
Effective Date:	03/09/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	4/10/2001
Termination Date:	03/09/2001
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000000655
Description:	NOV 2001-61. Failure to comply with WDRs. Treated soil disposed at 15254 Oak Creek Road not covered.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CLASS 2 SOIL TRTMENT FACILITY (Continued)

S102005503

Program: LNDISP
Latest Milestone Completion Date: Not reported
Of Programs1: 1
Total Assessment Amount: 0.00
Initial Assessed Amount: 0.00
Liability \$ Amount: 0.00
Project \$ Amount: 0.00
Liability \$ Paid: 0.00
Project \$ Completed: 0.00
Total \$ Paid/Completed Amount: 0.00

WMUDS/SWAT:

Edit Date: Not reported
Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.
Primary Waste: CNSOIL
Primary Waste Type: Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Base Meridian: Not reported
NPID: Not reported
Tonnage: 0
Regional Board ID: Not reported
Municipal Solid Waste: False
Superorder: False
Open To Public: False
Waste List: False
Agency Type: Private
Agency Name: SOIL WASH TECHNOLOGIES, INC
Agency Department: Not reported
Agency Address: 215 N MARENGO AVE, #110
Agency City,St,Zip: PASADENA CA 91101
Agency Contact: NIEL KITCHEN
Agency Telephone: 8187932435
Land Owner Name: Not reported
Land Owner Address: Not reported
Land Owner City,St,Zip: Not reported
Land Owner Contact: Not reported
Land Owner Phone: Not reported
Region: 9
Facility Type: Solid Waste Site-Class II - A solid waste facility at which designated wastes may be treated or stored.
Facility Description: Not reported
Facility Telephone: Not reported
SWAT Facility Name: Not reported
Primary SIC: 9511
Secondary SIC: Not reported
Comments: Not reported
Last Facility Editors: Not reported
Waste Discharge System: True
Solid Waste Assessment Test Program: False

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CLASS 2 SOIL TRTMENT FACILITY (Continued)

S102005503

Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.
Sub Chapter 15:	True
Regional Board Project Officer:	DFH
Number of WMUDS at Facility:	1
Section Range:	Not reported
RCRA Facility:	No
Waste Discharge Requirements:	A
Self-Monitoring Rept. Frequency:	Quarterly Submittal
Waste Discharge System ID:	9 000000655
Solid Waste Information ID:	Not reported

B32
WNW
 < 1/8
 0.011 mi.
 58 ft.

MISSION VALLEY PLANT, PRIMARY
9310 FRIARS RD
SAN DIEGO, CA 92108

HIST UST **U001572763**
N/A

Site 6 of 8 in cluster B

Relative:
Higher

HIST UST:

Region:	STATE
Facility ID:	00000009403
Facility Type:	Not reported
Other Type:	SAND & GRAVEL
Contact Name:	GEORGE GRIGGS
Telephone:	6192988824
Owner Name:	H.G. FENTON MATERIAL CO.
Owner Address:	702 W. WASHINGTON ST.
Owner City,St,Zip:	SAN DIEGO, CA 92103
Total Tanks:	0001

Actual:
 129 ft.

Tank Num:	001
Container Num:	MVP-D6
Year Installed:	1968
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

B33
WNW
 < 1/8
 0.013 mi.
 66 ft.

FENTON PROPERTIES
9300 FRIARS RD
SAN DIEGO, CA 92108

LUST **S104539587**
EMI **N/A**

Site 7 of 8 in cluster B

Relative:
Higher

LUST REG 9:

Region:	9
Status:	Case Closed
Case Number:	9UT2493

Actual:
 140 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FENTON PROPERTIES (Continued)

S104539587

Local Case: H02325-001
Substance: Gasoline
Qty Leaked: 0
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Aquifer affected
Date Found: 06/29/1993
Date Stopped: 06/29/1993
Confirm Date: 07/29/1993
Submit Workplan: 6/29/93
Prelim Assess: / /
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: 7/29/93
Began Monitor: Not reported
Release Date: 08/19/1993
Enforce Date: Not reported
Closed Date: 5/19/00
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 907.11
GW Depth: 6.8
Beneficial Use: MUNBU
NPDES Number: Not reported
Priority: 2A
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT3137
Local Case: H02325-002
Substance: Diesel
Qty Leaked: 0
Abate Method: Not reported
Local Agency: San Diego
How Found: Not reported
How Stopped: Not reported
Source: Unknown
Cause: Not reported
Lead Agency: Local Agency
Case Type: Aquifer affected
Date Found: 08/18/1994
Date Stopped: 08/18/1994
Confirm Date: / /
Submit Workplan: 10/26/94
Prelim Assess: 11/29/1959
Desc Pollution: Not reported
Remed Plan: / /

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FENTON PROPERTIES (Continued)

S104539587

Remed Action: Not reported
Began Monitor: Not reported
Release Date: 08/18/1994
Enforce Date: Not reported
Closed Date: 3/9/00
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 907.11
GW Depth: 25.1
Beneficial Use: MUNBU
NPDES Number: Not reported
Priority: High priority
File Dispn: Administratively opened on database, however no file physically exists
Interim Remedial Actions: Not reported
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT4064
Local Case: H02325-003
Substance: Diesel
Qty Leaked: 0
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Tank
Cause: Unknown
Lead Agency: Local Agency
Case Type: Aquifer affected
Date Found: 08/31/1995
Date Stopped: 08/31/1995
Confirm Date: / /
Submit Workplan: Not reported
Prelim Assess: 11/21/1995
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 08/31/1995
Enforce Date: Not reported
Closed Date: 3/9/00
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 907.11
GW Depth: 11
Beneficial Use: MUNBU
NPDES Number: Not reported
Priority: High priority
File Dispn: Not reported
Interim Remedial Actions: Not reported
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

FENTON PROPERTIES (Continued)

S104539587

EMI:

Year:	1990
County Code:	37
Air Basin:	SD
Facility ID:	47
Air District Name:	SD
SIC Code:	3273
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	10
Part. Matter 10 Micrometers & Smlr Tons/Yr:	7

Year:	1995
County Code:	37
Air Basin:	SD
Facility ID:	47
Air District Name:	SD
SIC Code:	3273
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0

B34 **MISSION VALLEY PLANT**
WNW **9300 FRIARS RD**
< 1/8 **SAN DIEGO, CA 92120**
0.013 mi.
66 ft. **Site 8 of 8 in cluster B**

HIST UST **U001572762**
WDS **N/A**

Relative:	HIST UST:	
Higher	Region:	STATE
	Facility ID:	00000020427
Actual:	Facility Type:	Not reported
140 ft.	Other Type:	SAND & GRAVEL
	Contact Name:	GEORGE GRIGGS
	Telephone:	6192988824
	Owner Name:	H.G. FENTON MATERIAL CO.
	Owner Address:	702 W. WASHINGTON ST.
	Owner City,St,Zip:	SAN DIEGO, CA 92103
	Total Tanks:	0012
	Tank Num:	001
	Container Num:	MV-D1
	Year Installed:	1961
	Tank Capacity:	00010000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

U001572762

Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: MV-D2
Year Installed: 1961
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: MV-D3
Year Installed: 1974
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: MV-D4
Year Installed: 1974
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 005
Container Num: MV-D5
Year Installed: 1974
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 006
Container Num: MV-G2
Year Installed: 1974
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 007
Container Num: MV-G1
Year Installed: 1961
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

U001572762

Leak Detection: Stock Inventor

Tank Num: 008
Container Num: MV-S1
Year Installed: 1958
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 009
Container Num: MV-01
Year Installed: 1963
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 010
Container Num: MV-02
Year Installed: 1963
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 011
Container Num: MV-03
Year Installed: 1963
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 012
Container Num: MV-W01
Year Installed: 1963
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Not reported

WDS:

Facility ID: San Diego 000000630
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

U001572762

NPDES Number: Not reported
Subregion: 9
Facility Telephone: Not reported
Facility Contact: THOMAS FARRAR
Agency Name: HANSON AGGREGATES
Agency Address: PO BOX 639069
Agency City,St,Zip: SAN DIEGO 92163
Agency Contact: PETE ZAGAR
Agency Telephone: 8585772772
Agency Type: Private
SIC Code: 1442
SIC Code 2: 3273
Primary Waste Type: Inert/Influent or Solid Wastes that do not contain soluble pollutants or organic wastes and have little adverse impact on water quality. Such wastes could cause turbidity and siltation. Uncontaminated soils, rubble and concrete are examples of this category.
Primary Waste: WSHWTR
Waste Type2: Not reported
Waste2: Washwater Waste (Product washwater wastes: E.G., photo reuse wastewater, vegetable washwater)
Primary Waste Type: Inert/Influent or Solid Wastes that do not contain soluble pollutants or organic wastes and have little adverse impact on water quality. Such wastes could cause turbidity and siltation. Uncontaminated soils, rubble and concrete are examples of this category.
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 0
Baseline Flow: 0
Reclamation: No reclamation requirements associated with this facility.
POTW: The facility is not a POTW.
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

C35
NE
< 1/8
0.017 mi.
88 ft.

9950 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108
Site 1 of 20 in cluster C

EDR US Hist Auto Stat 1015690537
N/A

Relative:
Higher

EDR Historical Auto Stations:
Name: EXXONMOBIL
Year: 2009
Address: 9950 SAN DIEGO MISSION RD

Actual:
74 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

C36
NE
< 1/8
0.017 mi.
88 ft.

POWERINE OIL CO
9950 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108

RCRA-SQG 1000215388
San Diego Co. HMMD CAT080012917
HAZNET

Site 2 of 20 in cluster C

Relative:
Higher

RCRA-SQG:

Date form received by agency: 09/01/1996

Facility name: POWERINE OIL CO

Facility address: 9950 SAN DIEGO MISSION RD

SAN DIEGO, CA 92108

EPA ID: CAT080012917

Mailing address: 12354 LAKELAND ROAD
SANTA FE SPRINGS, CA 90670

Contact: Not reported

Contact address: Not reported

Contact country: US

Contact telephone: Not reported

Contact email: Not reported

EPA Region: 09

Classification: Small Small Quantity Generator

Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: POWERINE OIL COMPANY

Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country: Not reported

Owner/operator telephone: (415) 555-1212

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: Not reported

Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED

Owner/operator address: NOT REQUIRED

NOT REQUIRED, ME 99999

Owner/operator country: Not reported

Owner/operator telephone: (415) 555-1212

Legal status: Private

Owner/Operator Type: Operator

Owner/Op start date: Not reported

Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No

Mixed waste (haz. and radioactive): No

Recycler of hazardous waste: No

Transporter of hazardous waste: No

Treater, storer or disposer of HW: No

Underground injection activity: No

On-site burner exemption: No

Furnace exemption: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

POWERINE OIL CO (Continued)

1000215388

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 11/18/1980
Site name: POWERINE OIL CO
Classification: Large Quantity Generator

Violation Status: No violations found

SAN DIEGO CO. HMMD:

Facility Id: 102383
Business Type: 6HK78
EPA Id Number: CAT080012917
APN: 433-240-27-00
Last HMMD Inspection: 02/14/1994
Permit Status: INAC
Permit Expiration: 02/14/1994
Facility Owner: POWERINE OIL COMPANY
Facility Address: 12354 LAKELAND RD
Facility City: SANTA FE SPRING
Facility State: CA
Facility Zip: 90670-
UST Owner: Not reported
Handle Regulated Hazmat: Y
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Not reported
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

HAZNET:

envid: 1000215388
Year: 1994
GEPaid: CAT080012917
Contact: CASTLE ENERGY CORP
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 12354 LAKELAND ROAD
Mailing City,St,Zip: SANTA FE SPRINGS, CA 906700000
Gen County: Not reported
TSD EPA ID: CAT080011059
TSD County: Not reported
Waste Category: Unspecified oil-containing waste
Disposal Method: Disposal, Other
Tons: .1500
Facility County: San Diego

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

C37
NE
 < 1/8
 0.017 mi.
 88 ft.

MOBIL OIL CORP, WCS&L
9950 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108

SAN DIEGO CO. SAM

S108407132
 N/A

Site 3 of 20 in cluster C

Relative:
Higher

SAN DIEGO CO. SAM:
 Case Number: H04288-001
 Agency: CA Regional Water Quality Control Board
Funding: Non Billable
 Facility Type: Drinking Water Aquifer Impacted
 Facility Status: Preliminary Assessment
 Date: 8/8/1991
 Date Began: 8/8/1991

Actual:
 74 ft.

C38
NE
 < 1/8
 0.017 mi.
 88 ft.

SFPP LP
9950 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108

HIST UST
SWEEPS UST
CHMIRS
San Diego Co. HMMD
EMI
WDS

U001572761
 N/A

Site 4 of 20 in cluster C

Relative:
Higher

HIST UST:
 Region: STATE
 Facility ID: 00000020122
 Facility Type: Other
 Other Type: DISTRIBUTION PLANT
 Contact Name: H. L. BERRY
 Telephone: 6192832155
 Owner Name: SHELL OIL COMPANY
 Owner Address: ONE SHELL PLAZA
 Owner City,St,Zip: HOUSTON, TX 77001
 Total Tanks: 0004

Tank Num: 001
 Container Num: 1
 Year Installed: 1965
 Tank Capacity: 00001000
 Tank Used for: WASTE
 Type of Fuel: 06
 Container Construction Thickness: Not reported
 Leak Detection: Stock Inventor

Tank Num: 002
 Container Num: 2
 Year Installed: 1972
 Tank Capacity: 00012000
 Tank Used for: PRODUCT
 Type of Fuel: Not reported
 Container Construction Thickness: Not reported
 Leak Detection: Stock Inventor

Tank Num: 003
 Container Num: 3
 Year Installed: 1972
 Tank Capacity: 00012000
 Tank Used for: PRODUCT
 Type of Fuel: DIESEL
 Container Construction Thickness: Not reported
 Leak Detection: Stock Inventor

Actual:
 74 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Tank Num: 004
Container Num: 3
Year Installed: 1972
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

SWEEPS UST:

Status: Active
Comp Number: 28545
Number: 9
Board Of Equalization: 44-000074
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-028545-000001
Tank Status: A
Capacity: 6000
Active Date: Not reported
Tank Use: CHEMICAL
STG: W
Content: Not reported
Number Of Tanks: 1

CHMIRS:

OES Incident Number: '08-6402
OES notification: 09/02/2008
OES Date: Not reported
OES Time: Not reported
Incident Date: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Merchant/Business
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	0635
Year:	2008
Agency:	Kinder Morgan
Incident Date:	9/2/2008
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Engine Oil
Quantity Released:	4
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	A truck has blown an oil filter releasing this material to the ground. A mechanic is on site cleaning up the spill which has caused a 10' x 10' stain under the truck.
OES Incident Number:	'08-1510
OES notification:	02/22/2008
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Resp Agency Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Facility Telephone: Not reported
Waterway Involved: No
Waterway: Not reported
Spill Site: Other
Cleanup By: Reporting Party
Containment: Not reported
What Happened: Not reported
Type: Not reported
Measure: Gal(s)
Other: Not reported
Date/Time: 1405
Year: 2008
Agency: Kinder Morgan
Incident Date: 2/22/2008
Admin Agency: San Diego County Health Services Dept.
Amount: Not reported
Contained: Yes
Site Type: Not reported
E Date: Not reported
Substance: Diesel Fuel
Quantity Released: 20
Unknown: Not reported
Substance #2: Not reported
Substance #3: Not reported
Evacuations: 0
Number of Injuries: 0
Number of Fatalities: 0
#1 Pipeline: Not reported
#2 Pipeline: Not reported
#3 Pipeline: Not reported
#1 Vessel >= 300 Tons: Not reported
#2 Vessel >= 300 Tons: Not reported
#3 Vessel >= 300 Tons: Not reported
Evacs: Not reported
Injuries: Not reported
Fatafs: Not reported
Comments: Not reported
Description: A breeder valve on a valve cracked open and released substance in an area of 12 by 12.

SAN DIEGO CO. HMMD:
Facility Id: 104132
Business Type: 6HK03

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

EPA Id Number: Not reported
APN: 433-240-27-00
Last HMMD Inspection: Not reported
Permit Status: INAC
Permit Expiration: 06/30/2002
Facility Owner: SHELL OIL COMPANY
Facility Address: 9950 SAN DIEGO MISSION RD
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92108-1721
UST Owner: SHELL OIL COMPANY
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Not reported
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:

UST Name: UNDERGROUND TANK 104132 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 104132
Tank Type: SINGLE WALL
Additional Id: 1
Capacity Gallons: 1000
UST Contents: AVIATION FUEL
Other Content Info: AVIATION FUEL
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: 1965-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104132 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 104132
Tank Type: SINGLE WALL
Additional Id: 2
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: 1972-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104132 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 104132
Tank Type: SINGLE WALL
Additional Id: 3

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Capacity Gallons: 12000
UST Contents: DIESEL
Other Content Info: DIESEL
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: 1972-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

EMI:

Year: 1990
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 41
Reactive Organic Gases Tons/Yr: 40
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Year: 1990
County Code: 37
Air Basin: SD
Facility ID: 1069
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 16
Reactive Organic Gases Tons/Yr: 15
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Year: 1990
County Code: 37
Air Basin: SD
Facility ID: 2633
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Total Organic Hydrocarbon Gases Tons/Yr: 16
Reactive Organic Gases Tons/Yr: 16
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1995
County Code: 37
Air Basin: SD
Facility ID: 2633
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 14
Reactive Organic Gases Tons/Yr: 14
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1995
County Code: 37
Air Basin: SD
Facility ID: 1069
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 16
Reactive Organic Gases Tons/Yr: 15
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1995
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 36
Reactive Organic Gases Tons/Yr: 36
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0

Map ID
Direction
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1996
County Code: 37
Air Basin: SD
Facility ID: 1069
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 16
Reactive Organic Gases Tons/Yr: 15
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1996
County Code: 37
Air Basin: SD
Facility ID: 2633
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 14
Reactive Organic Gases Tons/Yr: 14
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1996
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 36
Reactive Organic Gases Tons/Yr: 36
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1997
County Code: 37
Air Basin: SD
Facility ID: 2633

Map ID
Direction
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 14
Reactive Organic Gases Tons/Yr: 14
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1997
County Code: 37
Air Basin: SD
Facility ID: 1069
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 21
Reactive Organic Gases Tons/Yr: 21
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1997
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 30
Reactive Organic Gases Tons/Yr: 30
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1998
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 28

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Reactive Organic Gases Tons/Yr:	28
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	3
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	1998
County Code:	37
Air Basin:	SD
Facility ID:	2633
Air District Name:	SD
SIC Code:	5171
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5
Reactive Organic Gases Tons/Yr:	5
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	1998
County Code:	37
Air Basin:	SD
Facility ID:	1069
Air District Name:	SD
SIC Code:	5171
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	1999
County Code:	37
Air Basin:	SD
Facility ID:	91
Air District Name:	SD
SIC Code:	5171
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	31
Reactive Organic Gases Tons/Yr:	31
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Year: 1999
County Code: 37
Air Basin: SD
Facility ID: 1069
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 16
Reactive Organic Gases Tons/Yr: 16
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1999
County Code: 37
Air Basin: SD
Facility ID: 2633
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 9
Reactive Organic Gases Tons/Yr: 9
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2000
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 31
Reactive Organic Gases Tons/Yr: 31
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 2
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2000
County Code: 37
Air Basin: SD
Facility ID: 1069
Air District Name: SD
SIC Code: 5171

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 16
Reactive Organic Gases Tons/Yr: 16
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2000

County Code: 37

Air Basin: SD

Facility ID: 2633

Air District Name: SD

SIC Code: 5171

Air District Name: SAN DIEGO COUNTY APCD

Community Health Air Pollution Info System: Not reported

Consolidated Emission Reporting Rule: Not reported

Total Organic Hydrocarbon Gases Tons/Yr: 9

Reactive Organic Gases Tons/Yr: 9

Carbon Monoxide Emissions Tons/Yr: 0

NOX - Oxides of Nitrogen Tons/Yr: 0

SOX - Oxides of Sulphur Tons/Yr: 0

Particulate Matter Tons/Yr: 0

Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2001

County Code: 37

Air Basin: SD

Facility ID: 1069

Air District Name: SD

SIC Code: 5171

Air District Name: SAN DIEGO COUNTY APCD

Community Health Air Pollution Info System: Not reported

Consolidated Emission Reporting Rule: Not reported

Total Organic Hydrocarbon Gases Tons/Yr: 9

Reactive Organic Gases Tons/Yr: 9

Carbon Monoxide Emissions Tons/Yr: 0

NOX - Oxides of Nitrogen Tons/Yr: 0

SOX - Oxides of Sulphur Tons/Yr: 0

Particulate Matter Tons/Yr: 0

Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2001

County Code: 37

Air Basin: SD

Facility ID: 91

Air District Name: SD

SIC Code: 5171

Air District Name: SAN DIEGO COUNTY APCD

Community Health Air Pollution Info System: Y

Consolidated Emission Reporting Rule: Not reported

Total Organic Hydrocarbon Gases Tons/Yr: 42

Reactive Organic Gases Tons/Yr: 42

Carbon Monoxide Emissions Tons/Yr: 0

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	2001
County Code:	37
Air Basin:	SD
Facility ID:	2633
Air District Name:	SD
SIC Code:	5171
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	2002
County Code:	37
Air Basin:	SD
Facility ID:	2633
Air District Name:	SD
SIC Code:	5171
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	2002
County Code:	37
Air Basin:	SD
Facility ID:	1069
Air District Name:	SD
SIC Code:	5171
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	2002

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Y
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 39
Reactive Organic Gases Tons/Yr: 39
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 3
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2003
County Code: 37
Air Basin: SD
Facility ID: 2633
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 9
Reactive Organic Gases Tons/Yr: 9
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2003
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 45
Reactive Organic Gases Tons/Yr: 45
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 7
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2003
County Code: 37
Air Basin: SD
Facility ID: 1069
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 9
Reactive Organic Gases Tons/Yr: 9
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2004
County Code: 37
Air Basin: SD
Facility ID: 2633
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 9.47935105
Reactive Organic Gases Tons/Yr: 9.47935105
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2004
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Y
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 45.21458205
Reactive Organic Gases Tons/Yr: 45.21458205
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 7.21212232
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2004
County Code: 37
Air Basin: SD
Facility ID: 1069
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 8.98270549
Reactive Organic Gases Tons/Yr: 8.98270549
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	2005
County Code:	37
Air Basin:	SD
Facility ID:	91
Air District Name:	SD
SIC Code:	5171
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	49.09
Reactive Organic Gases Tons/Yr:	49.09
Carbon Monoxide Emissions Tons/Yr:	2.12
NOX - Oxides of Nitrogen Tons/Yr:	7.04
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	2005
County Code:	37
Air Basin:	SD
Facility ID:	1069
Air District Name:	SD
SIC Code:	5171
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5.14
Reactive Organic Gases Tons/Yr:	5.14
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	2006
County Code:	37
Air Basin:	SD
Facility ID:	91
Air District Name:	SD
SIC Code:	5171
Air District Name:	SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	41.540927311
Reactive Organic Gases Tons/Yr:	41.540927311
Carbon Monoxide Emissions Tons/Yr:	2.01
NOX - Oxides of Nitrogen Tons/Yr:	5.12
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smlr Tons/Yr:	0
Year:	2007
County Code:	37

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 45.11
Reactive Organic Gases Tons/Yr: 45.11
Carbon Monoxide Emissions Tons/Yr: 5.45
NOX - Oxides of Nitrogen Tons/Yr: 4.05
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2008
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 46.34
Reactive Organic Gases Tons/Yr: 46.34
Carbon Monoxide Emissions Tons/Yr: 6.19
NOX - Oxides of Nitrogen Tons/Yr: 4.53
SOX - Oxides of Sulphur Tons/Yr: .006
Particulate Matter Tons/Yr: .07
Part. Matter 10 Micrometers & Smlr Tons/Yr: .07

Year: 2009
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 45.710000000000001
Reactive Organic Gases Tons/Yr: 45.710000000000001
Carbon Monoxide Emissions Tons/Yr: 5.910000000000001
NOX - Oxides of Nitrogen Tons/Yr: 4.3399999999999999
SOX - Oxides of Sulphur Tons/Yr: 0.01
Particulate Matter Tons/Yr: 8.000000000000002E-2
Part. Matter 10 Micrometers & Smlr Tons/Yr: 8.000000000000002E-2

Year: 2010
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP LP (Continued)

U001572761

Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 53.490000000000002
Reactive Organic Gases Tons/Yr: 53.490000000000002
Carbon Monoxide Emissions Tons/Yr: 3.080000000000001
NOX - Oxides of Nitrogen Tons/Yr: 2.9199999999999999
SOX - Oxides of Sulphur Tons/Yr: 7.470000000000005E-4
Particulate Matter Tons/Yr: 9.459999999999997E-3
Part. Matter 10 Micrometers & Smlr Tons/Yr: 9.459999999999997E-3

Year: 2011
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 53.68
Reactive Organic Gases Tons/Yr: 53.68
Carbon Monoxide Emissions Tons/Yr: 3.09
NOX - Oxides of Nitrogen Tons/Yr: 2.93
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.01
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0.01

Year: 2012
County Code: 37
Air Basin: SD
Facility ID: 91
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 53.68
Reactive Organic Gases Tons/Yr: 53.68
Carbon Monoxide Emissions Tons/Yr: 3.09
NOX - Oxides of Nitrogen Tons/Yr: 2.93
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.01
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0.01

WDS:

Facility ID: San Diego 371018788
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 9
Facility Telephone: 6195841055

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SFPP LP (Continued)

U001572761

Facility Contact: Boyd Anderson
 Agency Name: COASTAL TRANS CO INC
 Agency Address: 5714 Star Ln
 Agency City,St,Zip: Houston 77057
 Agency Contact: Dave Huber
 Agency Telephone: 7137841010
 Agency Type: Private
 SIC Code: 4212
 SIC Code 2: Not reported
 Primary Waste Type: Not reported
 Primary Waste: Not reported
 Waste Type2: Not reported
 Waste2: Not reported
 Primary Waste Type: Not reported
 Secondary Waste: Not reported
 Secondary Waste Type: Not reported
 Design Flow: 0
 Baseline Flow: 0
 Reclamation: Not reported
 POTW: Not reported
 Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
 Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

**C39
 NE
 < 1/8
 0.017 mi.
 88 ft.**

**SFPP, LP/KINDER MORGAN
 9950 SAN DIEGO MISSION RD
 SAN DIEGO, CA 92108
 Site 5 of 20 in cluster C**

**HIST CORTESE
 AST
 CHMIRS
 San Diego Co. HMMMD
 EMI**

**S103994117
 N/A**

**Relative:
 Higher**

HIST CORTESE:
 Region: CORTESE
 Facility County Code: 37
 Reg By: WBC&D
 Reg Id: 9 000054N91

**Actual:
 74 ft.**

Region: CORTESE
 Facility County Code: 37
 Reg By: WBC&D
 Reg Id: 9 000055N91

Region: CORTESE
 Facility County Code: 37
 Reg By: WBC&D
 Reg Id: 9 000056N91

Region: CORTESE
 Facility County Code: 37
 Reg By: WBC&D

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Reg Id: 9 000057N91

AST:

Certified Unified Program Agencies: San Diego
Owner: SFPP, LP/KINDER MORGAN
Total Gallons: 27479044

CHMIRS:

OES Incident Number: 06-1820
OES notification: 03/28/2006
OES Date: Not reported
OES Time: Not reported
Incident Date: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Facility Telephone: Not reported
Waterway Involved: Not reported
Waterway: Not reported
Spill Site: Not reported
Cleanup By: Responsible Party
Containment: Not reported
What Happened: Not reported
Type: Not reported
Measure: Not reported
Other: Not reported
Date/Time: Not reported
Year: 2006
Agency: Kinder Morgan
Incident Date: 3/28/2006 12:00:00 AM
Admin Agency: San Diego County Health Services Dept.
Amount: Not reported
Contained: Yes
Site Type: Pipe Line
E Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Substance:	Gasoline
Gallons:	2
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Substance was released from a vacuum hose truck, due to the hose falling from the truck. Spill covered an area 5 Ft X 4 Ft.
OES Incident Number:	07-0514
OES notification:	01/23/2007
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personnel # Of Decontaminated:	Not reported
Responding Agency Personnel # Of Injuries:	Not reported
Responding Agency Personnel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2007
Agency:	Kinder Morgan
Incident Date:	1/23/2007 12:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Unknown
Site Type:	Other
E Date:	Not reported
Substance:	Oil
Gallons:	500
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Unknown leak in a water remediation system which is contained on site
OES Incident Number:	05-5310
OES notification:	09/13/2005
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	Kinder Morgan
Incident Date:	9/13/200512:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Diesel
Gallons:	1
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Substance was released from a product hose while draining.
OES Incident Number:	07-7642
OES notification:	12/11/2007
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

More Than Two Substances Involved?:	Not reported
Resp Agency Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2007
Agency:	Kinder Morgan
Incident Date:	12/11/2007 12:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Ground Water
Gallons:	30
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	A vault drum overfilled and released in the vault. Substance was totally contained within the vault.
OES Incident Number:	06-7108
OES notification:	12/01/2006

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agency Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan
Incident Date:	12/1/2006 12:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Diesel
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Substance was released due to a pump leaking. Substance covered an area 10 ft X 20 Ft.
OES Incident Number:	05-6616
OES notification:	11/15/2005
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agency Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	Kinder Morgan
Incident Date:	11/15/200512:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Other

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

E Date:	Not reported
Substance:	Threatened Release
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Per caller during testing several hits where received off probes. Per caller they are digging around probes to see if any hydro carbons have been released.
OES Incident Number:	05-5846
OES notification:	10/10/2005
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	Kinder Morgan
Incident Date:	10/10/200512:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Industrial Plant
E Date:	Not reported
Substance:	Ethanol
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Per caller, a leaking truck caused the release. causing a 1 foot by 1 foot stain.
OES Incident Number:	06-6500
OES notification:	11/02/2006
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan
Incident Date:	11/2/2006 12:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Water contaminated with Diesel
Gallons:	1/2
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Per caller, a 3ft by 3ft area of water contaminated with Diesel, occurred when off loading a driver, the hose came out of the sump hole.
OES Incident Number:	06-2476
OES notification:	04/25/2006
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agency Personnel # Of Decontaminated:	Not reported
Responding Agency Personnel # Of Injuries:	Not reported
Responding Agency Personnel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan
Incident Date:	4/25/2006 12:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Gasoline
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Description:	Pressure had built in a hose causing it to disconnect and a release to occur.
OES Incident Number:	06-0999
OES notification:	02/16/2006
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2006
Agency:	Kinder Morgan
Incident Date:	2/16/2006 12:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Pipe Line
E Date:	Not reported
Substance:	Carbon Filter Water
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Substance released due to maintenance from a petroleum pipeline. Substance sprayed over an area 100 Ft X 15 Ft.
OES Incident Number:	05-6394
OES notification:	11/06/2005
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	Kinder Morgan

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Incident Date:	11/6/200512:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Gasoline
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Per caller, a 16 inch stain was discovered on the ground.
OES Incident Number:	05-6040
OES notification:	10/19/2005
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported

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SFPP, LP/KINDER MORGAN (Continued)

S103994117

Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	Kinder Morgan Energy
Incident Date:	10/19/200512:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Pipe Line
E Date:	Not reported
Substance:	Water
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Substance was being pumped back into remediation when a plug failed. Pumps where stopped and Plug was replaced.

SAN DIEGO CO. HMMMD:

Facility Id:	100804
Business Type:	6HK19
EPA Id Number:	CAD080912587
APN:	433-240-27-00
Last HMMMD Inspection:	10/17/2011
Permit Status:	OPEN
Permit Expiration:	02/28/2013
Facility Owner:	SFPP, LP/KINDER MORGAN
Facility Address:	1100 S TOWN & COUNTRY RD
Facility City:	ORANGE
Facility State:	CA
Facility Zip:	92868-
UST Owner:	SFPP, LP
Handle Regulated Hazmat:	Y
Own Or Operate UST:	Not reported
Subject To APSA:	Y
Generate Haz Waste:	Y
Treat Haz Waste:	Y

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Generate Medical Waste: Not reported

UST:

UST Name: UNDERGROUND TANK 104507 T008
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: DOUBLE WALL
Additional Id: NT1799 / OIL BEARING MATERIAL / RT3688
Capacity Gallons: 10000
UST Contents: OTHER
Other Content Info: GASOLINE ADDITIVE & WATER
Reg Status: ACTIVE
Remove Close Date: Not reported
Year Installed: 1994-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: GRAVITY
Monitor Code: 21
UST Monitor Method: DW TANK DW SUCTION AND/ OR GRAVITY PIPING WITH INTERSTITIAL MONITORS: INTERSTITIAL

UST Name: UNDERGROUND TANK 100804 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: SUMP D109 (UST "D1") AT5487
Capacity Gallons: 600
UST Contents: OTHER
Other Content Info: MOTOR VEHICLE FUEL
Reg Status: CLOSED
Remove Close Date: 2011-01-27 00:00:00
Year Installed: 1989-01-01 00:00:00
Pipe Type: SINGLE WALL
Delivery System: PRESSURE
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: D-108 LOADING RACK SUMP (UST "B") AT5475
Capacity Gallons: 8709
UST Contents: OTHER
Other Content Info: MOTOR VEHICLE FUEL
Reg Status: REMOVED
Remove Close Date: 2010-11-17 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: SINGLE WALL
Delivery System: PRESSURE
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL

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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Additional Id: SUMP D-106 (UST "C ") AT5461
Capacity Gallons: 600
UST Contents: OTHER
Other Content Info: MOTOR VEHICLE FUEL
Reg Status: DEFICIENT
Remove Close Date: 2010-06-14 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: SINGLE WALL
Delivery System: PRESSURE
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T004
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: SHELL RACK SUMP FOR RACK 5/AT5292
Capacity Gallons: 846
UST Contents: OTHER
Other Content Info: MOTOR VEHICLE FUEL
Reg Status: REMOVED
Remove Close Date: 2007-01-22 00:00:00
Year Installed: Not reported
Pipe Type: SINGLE WALL
Delivery System: GRAVITY
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T005
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: BURNER SUMP D-111 (UST "D2 ") AT5487
Capacity Gallons: 235
UST Contents: OTHER
Other Content Info: MOTOR VEHICLE FUEL
Reg Status: REMOVED
Remove Close Date: 2011-01-27 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: PRESSURE
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T006
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: VAPOR RECOVERY SATURATOR/AT5374
Capacity Gallons: 1650
UST Contents: OTHER
Other Content Info: MOTOR VEHICLE FUEL
Reg Status: REMOVED
Remove Close Date: 2008-11-18 00:00:00

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Year Installed: 1976-01-01 00:00:00
Pipe Type: Not reported
Delivery System: PRESSURE
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T007
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: VAPOR CONDENSATE - (UST "D4") AT5487
Capacity Gallons: 430
UST Contents: OTHER
Other Content Info: Not reported
Reg Status: REMOVED
Remove Close Date: 2011-01-14 00:00:00
Year Installed: 1974-03-01 00:00:00
Pipe Type: SINGLE WALL
Delivery System: GRAVITY
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T008
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: (UST "'A")' AT5319
Capacity Gallons: 294
UST Contents: Not reported
Other Content Info: 'OFF SPEC FUELS'
Reg Status: REMOVED
Remove Close Date: 2009-01-06 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: Not reported
UST Monitor Method: Not reported

UST Name: UNDERGROUND TANK 100804 T009
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: AT5405
Capacity Gallons: 370
UST Contents: Not reported
Other Content Info: ETHANOL
Reg Status: CLOSED
Remove Close Date: 2009-04-01 00:00:00
Year Installed: 2003-08-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

Map ID
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Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

UST Name: UNDERGROUND TANK 100804 T010
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: AT5405
Capacity Gallons: 370
UST Contents: Not reported
Other Content Info: ETHANOL
Reg Status: CLOSED
Remove Close Date: 2009-04-01 00:00:00
Year Installed: 2003-08-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T011
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: AT5412
Capacity Gallons: 300
UST Contents: Not reported
Other Content Info: Not reported
Reg Status: REMOVED
Remove Close Date: 2009-06-03 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T012
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: DOUBLE WALL
Additional Id: NT2503
Capacity Gallons: 4000
UST Contents: OTHER
Other Content Info: Not reported
Reg Status: ACTIVE
Remove Close Date: Not reported
Year Installed: 2010-06-07 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 46
UST Monitor Method: DW TANK W/ CONSTANT VACUUM INTERSTITIAL W/ ALARM; SW GRAVITY ABOVEGROUND PIPING W/VISUAL MONIT; NO SUMPS OR UDCS.

UST Name: UNDERGROUND TANK 100804 T013
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: AT5461 (UST "C1")
Capacity Gallons: 1500

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Database(s)

EDR ID Number
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SFPP, LP/KINDER MORGAN (Continued)

S103994117

UST Contents: LEADED
Other Content Info: FUEL WATER SEPARATOR
Reg Status: REMOVED
Remove Close Date: 2010-06-14 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: Not reported
UST Monitor Method: Not reported

Active Permits:

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: FUEL ADDITIVE
Other Information: HI-TEC 6591S (MVA-4)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 64742-95-6
Name: FUEL ADDITIVE
Other Information: NEMO 1121P
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 134 AQUEOUS SOL'N W/LESS 10% ORG
Other Information: WASTEWATER WITH BENZENE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 352 ORGANIC SOLIDS (OTHER)
Other Information: SOIL W/PB
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 291 LATEX WASTE
Other Information: Not reported
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804

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Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 352 ORGANIC SOLIDS (OTHER)
Other Information: RAGS, SOIL, FOAM LOGS WITH GASOLINE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 352 ORGANIC SOLIDS (OTHER) PAINT CHIPS
Other Information: PAINT CHIPS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 74-86-2
Name: ACETYLENE GAS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 68476-34-6
Name: DIESEL; (MV-12, 17, 23, 8, 11, 29)
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 7782-44-7
Name: OXYGEN GAS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: MIXTURE
Name: PETROLEUM HYDROCARBONS
Other Information: TRANSMIX (MV-2-31,32)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 241 TANK BOTTOM WASTE

Map ID
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SFPP, LP/KINDER MORGAN (Continued)

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Other Information: TANK BOTTOM SLUDGE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: FUEL ADDITIVE
Other Information: AP 4001 FUEL ADDITIVE
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 214 UNSPEC SOLVENT MIXTURE
Other Information: PAINT AND RELATED MATERIALS (343)
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 343 UNSPEC ORGANIC LIQUID MIXTURE (OTHER) TANK
Other Information: TANK CLEANING WASTEWATER (GASOLINE)
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 611 CONTAMINATED SOIL
Other Information: Not reported
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 64-17-5
Name: DENATURED ETHANOL
Other Information: ETHANOL 95% (MV-21-22)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 7727-37-9
Name: NITROGEN GAS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE

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SFPP, LP/KINDER MORGAN (Continued)

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Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 74-98-6
Name: PROPANE, LIQUIFIED PETROLEUM COMPRESSED GAS
Other Information: (2X100; 1X500)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 7681-52-9
Name: SODIUM HYPOCHLORITE
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: REACTIVE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: MIXTURE
Name: FUEL ADDITIVE
Other Information: HITEC 6676 C
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: MIXTURE
Name: KEROPUR
Other Information: AP-297-15 FUEL ADDITIVE MVA-1 AG-1
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 112-34-5
Name: LIGHT WATER FC-600
Other Information: BRAND ATC/AFFF
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: CHRONIC

Facility Id: 100804
Update Date: 11/02/2012
Case Number: MIXTURE
Name: UNISOL LIQUID
Other Information: UNISOL LIQUID RED BK-50 LR-1,5
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804

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SFPP, LP/KINDER MORGAN (Continued)

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Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 221 WASTE OIL & MIXED OIL
Other Information: USED OIL
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 64-19-7
Name: ACETIC ACID
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 8006-61-9
Name: PETROLEUM HYDROCARBON
Other Information: GASOLINE (MV1,3,4,5,6,7,9,10,13,14,15,16,18,19,25-28)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: MIXTURE
Name: FUEL ADDITIVE
Other Information: MCC LUBRICITY FUEL ADDITIVE
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: CHRONIC

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 7664-38-2
Name: PHOSPHORIC ACID
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 7631-90-5
Name: SODIUM BISULFITE
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: REACTIVE
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 132 AQUEOUS SOL'N WITH METALS

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SFPP, LP/KINDER MORGAN (Continued)

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Other Information: AQUEOUS SOLUTION WITH AS, CD
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Violations Active Permits:

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV1601
Violation: HAZWASTE TANKS W/O P.E. ASSESSMENT
Violation Citation: Failed to obtain a P.E. assessment for hazardous waste tank system.
66265.191(a) or 66265.192(a)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 01/12/2005
Violation Code: 6HV0202
Violation: WASTE CONTAINER W/O LABELS
Violation Citation: Hazardous waste containers &/or tanks are missing labels, accumulation
date and/or are improperly labeled. CCR 66262.34(a)(2);
66262.34(a)(3) & 66262.34(f)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 11/20/2009
Violation Code: 6HV1009
Violation: HMBP: INADEQUATE SITE MAP
Violation Citation: Business Plan does not have a site map which provides sufficient or
complete information for emergency response agencies. HSC 25509(a)(5)
& 25505(a)(2)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 11/01/2005
Violation Code: 6HV0207
Violation: FIRE/EXPLOSION/RELEASE NOT MINIMIZED
Violation Citation: Facility not maintained &/operated to minimize possibility of fire,
explosion or release. CCR 66265.31
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV3553
Violation: SWPP1: NO HOURLY LLD MONITORING
Violation Citation: SINGLE WALLED PRESSURIZED PIPING: OPTION 1-Hourly line leak detector
monitoring not performed. 25284.1(a)(4) (C); 2643(c)(1)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV0202

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SFPP, LP/KINDER MORGAN (Continued)

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Violation: WASTE CONTAINER W/O LABELS
Violation Citation: Hazardous waste containers &/or tanks are missing labels, accumulation date and/or are improperly labeled. CCR 66262.34(a)(2); 66262.34(a)(3) & 66262.34(f)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3107
Violation: MONITORING PROCEDURES NOT AVAIL/TO HMD
Violation Citation: Monitoring procedures not available/complete/submitted to HMD 2632(b)& (d), 2634(d), 2641(h), 2711(a)(9)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3110
Violation: NO ANNUAL CERT OF ATG AND SENSORS
Violation Citation: Annual certification for ATG and/or sensors not completed (existing tank systems only). 2641(j), 2638
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 10/17/2011
Violation Code: 6HV3105
Violation: NO CURRENT FINANCIAL RESPONSIBILITY
Violation Citation: Current evidence of financial responsibility not available. 25292.2(a), 25299.33; 2809
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV0143
Violation: TP NOTIFICATION INCOMPLETE/INCORRECT
Violation Citation: TIERED PERMITTING: TP Notification has incomplete or incorrect information. 25201
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV0202
Violation: WASTE CONTAINER W/O LABELS
Violation Citation: Hazardous waste containers &/or tanks are missing labels, accumulation date and/or are improperly labeled. CCR 66262.34(a)(2); 66262.34(a)(3) & 66262.34(f)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV1611
Violation: IMPROPER CLOSURE OF HW TANK UNIT

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SFPP, LP/KINDER MORGAN (Continued)

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Violation Citation: Failed to properly complete and/or document closure for a hazardous waste tank system. 67383.3 & 66265.197(a)&(b)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV3301
Violation: CATH PROT:SYSTEM NOT CHECKED AS REQ
Violation Citation: System not checked as required by tester (at 6 months/3yrs.)
2635(a)(2)(A)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV3554
Violation: SWPP1: MONTHLY ELLD NOT DONE
Violation Citation: SINGLE WALLED PRESSURIZED PIPING: OPTION 1:Monthly electronic line leak detection not performed. 2643(c)(2)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 11/20/2009
Violation Code: 6HV0224
Violation: MISMANAGED EMPTY CONTAINERS >5GALS.
Violation Citation: Failed to mark date on empty container larger than 5 gallons and/or manage it within one year. 66261.7(e) & (f).
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV1009
Violation: HMBP: INADEQUATE SITE MAP
Violation Citation: Business Plan does not have a site map which provides sufficient or complete information for emergency response agencies. HSC 25509(a)(5) & 25505(a)(2)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV1018
Violation: INVENTORY INCOMPLETE/NOT AMENDED
Violation Citation: Inventory not amended for 100% increase of hazardous material onsite or inventory is incomplete. 25509, 25510
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV0201
Violation: WASTE CONTAINER NOT CLOSED
Violation Citation: Hazardous waste containers are not kept closed while in storage. CCR 66265.173(a)

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SFPP, LP/KINDER MORGAN (Continued)

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Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3105
Violation: NO CURRENT FINANCIAL RESPONSIBILITY
Violation Citation: Current evidence of financial responsibility not available.
25292.2(a), 25299.33; 2809

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3192
Violation: NO D.O INSPECTION/INCOMPL;NO REPORTS
Violation Citation: Designated Operator monthly inspection not conducted or incomplete; or
DO inspection reports not onsite 2715 (c)(d)(e)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV1605
Violation: NO DAILY TANK INSPECTION/LOG
Violation Citation: Failed to inspect and/or document daily HW tank system inspections.
66265.195 (c)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV1006
Violation: HMBP: INVENTORY INADEQUATE
Violation Citation: Business Plan inventory does not list all hazardous materials on site
in disclosable quantities. HSC 25504(a),25503.5

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 09/20/2004
Violation Code: 6HV1603
Violation: NO 2ND CONTAINMENT FOR HW TANK
Violation Citation: Failed to provide proper secondary containment and/or leak detection
for Hazardous waste tank system. 66265.193(a)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3101
Violation: UPF PERMIT NOT CURRENT/ONSITE
Violation Citation: Current UPF permit not obtained/not available. 25284; 68.905, 68.1003,
68.1005

Activity: ACTIVE

Facility Id: 100804

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Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3254
Violation: UST SYSTEM W/O APPROVED OVERFILL PROTECT
Violation Citation: UST system does not have an approved overfill protection system.
2635(b)(2)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV1603
Violation: NO 2ND CONTAINMENT FOR HW TANK
Violation Citation: Failed to provide proper secondary containment and/or leak detection
for Hazardous waste tank system. 66265.193(a)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3191
Violation: NO D.O. CERT/NOTIFICATION/CHANGE
Violation Citation: Designated Operator Notification/Change form not submitted and/or D.O.
not ICC certified. 2715 (a)(b)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3701
Violation: SWGP:PIPE INTEG NOT TESTED EVERY 2 YEARS
Violation Citation: SINGLE WALLED GRAVITY PIPING:Piping integrity test not performed every
2 years. 2643(e)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV3254
Violation: UST SYSTEM W/O APPROVED OVERFILL PROTECT
Violation Citation: UST system does not have an approved overfill protection system.
2635(b)(2)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 09/20/2004
Violation Code: 6HV1601
Violation: HAZWASTE TANKS W/O P.E. ASSESSMENT
Violation Citation: Failed to obtain a P.E. assessment for hazardous waste tank system.
66265.191(a) or 66265.192(a)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 11/20/2009
Violation Code: 6HV0137

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Violation: MANIFEST NOT COMPLETED PROPERLY
Violation Citation: Generator of hazardous waste has not completed the hazardous waste manifest with all information required. CCR 66262.23(a)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV1602
Violation: P.E. ASSESSMENT REPORT NOT COMPLETE
Violation Citation: Failed to provide adequate P.E. Assessment report for a HW tank system. 66265.191(g) or 66265.192(k)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3108
Violation: UST ER RESPONSE PLAN NOT COMPLETE/AVAIL
Violation Citation: Emergency Response Plan is not available/complete. 25289(b); 2632(b), 2634(e), 2641(h)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3265
Violation: SYS NOT RUN TO PREVENT SPILL/OVERFILL
Violation Citation: UST system not operated to prevent spills and/or overfills. 25292.1(a)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV3302
Violation: IMPRESSED CURRENT TEST NOT DONE ON TIME
Violation Citation: CATHODIC PROTECTION: Impressed current system check not done every 60 days. 2635 (a)(2)(A)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 11/01/2005
Violation Code: 6HV0301
Violation: HAZWASTE:UNAUTHORIZED DISPOSAL
Violation Citation: Disposal or causing the disposal of hazardous waste to an unauthorized point (ground, storm drain, sewer system, trash, or air). HSC 25189.5(a) or 25189(d)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV1611
Violation: IMPROPER CLOSURE OF HW TANK UNIT
Violation Citation: Failed to properly complete and/or document closure for a hazardous waste tank system. 67383.3 & 66265.197(a)&(b)

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Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV0402
Violation: TRAINING PROGRAM NOT ADEQUATE
Violation Citation: Personnel training is not adequate to ensure compliance with hazardous waste regulations. CCR 66265.16(a)&(b)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3193
Violation: NO TRAINING/RECORD INCOMPLETE-NOT ONSITE
Violation Citation: Facility employee(s) are not trained, training records are incomplete, and/or not onsite. 2715(f)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3269
Violation: UST SYSTEM NOT CONT. MONITORED W/VPH
Violation Citation: UST system not continuously monitored using Vacuum/Pressure/Hydrostatic (VPH) system (for tank installs on or after 7/1/04). 25290.1 (d)&(e)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV1009
Violation: HMBP: INADEQUATE SITE MAP
Violation Citation: Business Plan does not have a site map which provides sufficient or complete information for emergency response agencies. HSC 25509(a)(5) & 25505(a)(2)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV3701
Violation: SWGP:PIPE INTEG NOT TESTED EVERY 2 YEARS
Violation Citation: SINGLE WALLED GRAVITY PIPING:Piping integrity test not performed every 2 years. 2643(e)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3104
Violation: FORMS A & B NOT AVAIL./SUBMITTED
Violation Citation: CUPA UST form(s) A and/or B not available/complete/submitted to HMD. 25286(a); 2711

Activity: ACTIVE

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SFPP, LP/KINDER MORGAN (Continued)

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Facility Id: 100805
Business Type: 6HK07
EPA Id Number: Not reported
APN: 433-240-27-00
Last HMMD Inspection: Not reported
Permit Status: INAC
Permit Expiration: Not reported
Facility Owner: Not reported
Facility Address: Not reported
Facility City: Not reported
Facility State: Not reported
Facility Zip: Not reported
UST Owner: Not reported
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Not reported
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

Facility Id: 207749
Business Type: 6HK26
EPA Id Number: CAL000172941
APN: 433-240-27-00
Last HMMD Inspection: 04/22/2011
Permit Status: OPEN
Permit Expiration: 05/31/2013
Facility Owner: COASTAL TRANSPORT COMPANY INC
Facility Address: 1603 ACKERMAN RD
Facility City: SAN ANTONIO
Facility State: TX
Facility Zip: 78219
UST Owner: Not reported
Handle Regulated Hazmat: Y
Own Or Operate UST: Not reported
Subject To APSA: N
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

Active Permits:

Facility Id: 207749
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 221 WASTE OIL & MIXED OIL
Other Information: USED OIL
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 207749
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 444 USED BATTERIES
Other Information: FLEET PRIDE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

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Facility Id: 207749
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 223 UNSPEC OIL CONTAINING WASTE
Other Information: OILY ABSORBENT
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 207749
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 342 ORGANIC LIQUIDS W/METALS
Other Information: USED ANTIFREEZE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 207749
Update Date: 11/02/2012
Case Number: 8002-05-9
Name: OILS, LUBRICATING
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: CHRONIC

Facility Id: 207749
Update Date: 11/02/2012
Case Number: 7782-44-7
Name: OXYGEN GAS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 207749
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 135 UNSPECIFIED AQUEOUS SOL'N
Other Information: PARTS WASHER
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 207749
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 888 USED OIL FILTERS
Other Information: Not reported
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Violations Active Permits:
Facility Id: 207749
Update Date: 11/02/2012

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SFPP, LP/KINDER MORGAN (Continued)

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Inspection Date: 12/04/2008
Violation Code: 6HV0227
Violation: HAZWASTE TANK/CONTAINER W/O LABEL/DATE
Violation Citation: Failed to properly label/date hazardous waste container &/or tank. 66262.34(f)
Activity: ACTIVE

Facility Id: 207749
Update Date: 11/02/2012
Inspection Date: 12/04/2008
Violation Code: 6HV0226
Violation: HW NOT ACCUMULATED IN TANK/CONTAINER
Violation Citation: Did not accumulate waste in container or tank. 66262.34 (d)(2)
Activity: ACTIVE

Facility Id: 207749
Update Date: 11/02/2012
Inspection Date: 04/22/2011
Violation Code: 6HV0218
Violation: FILTERS:FUEL/OIL NOT LABELED OR CLOSED
Violation Citation: Failed to label &/or close drained used oil filters &/or used fuel filters. 25250.22 and 66266.130(c)(3)
Activity: ACTIVE

Facility Id: 207749
Update Date: 11/02/2012
Inspection Date: 04/22/2011
Violation Code: 6HV0227
Violation: HAZWASTE TANK/CONTAINER W/O LABEL/DATE
Violation Citation: Failed to properly label/date hazardous waste container &/or tank. 66262.34(f)
Activity: ACTIVE

Facility Id: 100804
Business Type: 6HK19
EPA Id Number: CAD080912587
APN: 433-240-27-00
Last HMMD Inspection: 10/17/2011
Permit Status: OPEN
Permit Expiration: 02/28/2013
Facility Owner: SFPP, LP/KINDER MORGAN
Facility Address: 1100 S TOWN & COUNTRY RD
Facility City: ORANGE
Facility State: CA
Facility Zip: 92868-
UST Owner: SFPP, LP
Handle Regulated Hazmat: Y
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Y
Generate Medical Waste: Not reported

UST:
UST Name: UNDERGROUND TANK 104507 T008
Last Update: 2012-11-02 14:17:38
Permit Number: 100804

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Tank Type: DOUBLE WALL
Additional Id: NT1799 / OIL BEARING MATERIAL / RT3688
Capacity Gallons: 10000
UST Contents: OTHER
Other Content Info: GASOLINE ADDITIVE & WATER
Reg Status: ACTIVE
Remove Close Date: Not reported
Year Installed: 1994-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: GRAVITY
Monitor Code: 21
UST Monitor Method: DW TANK DW SUCTION AND/ OR GRAVITY PIPING WITH INTERSTITIAL MONITORS: INTERSTITIAL

UST Name: UNDERGROUND TANK 100804 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: SUMP D109 (UST "D1") AT5487
Capacity Gallons: 600
UST Contents: OTHER
Other Content Info: MOTOR VEHICLE FUEL
Reg Status: CLOSED
Remove Close Date: 2011-01-27 00:00:00
Year Installed: 1989-01-01 00:00:00
Pipe Type: SINGLE WALL
Delivery System: PRESSURE
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: D-108 LOADING RACK SUMP (UST "B") AT5475
Capacity Gallons: 8709
UST Contents: OTHER
Other Content Info: MOTOR VEHICLE FUEL
Reg Status: REMOVED
Remove Close Date: 2010-11-17 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: SINGLE WALL
Delivery System: PRESSURE
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: SUMP D-106 (UST "C ") AT5461
Capacity Gallons: 600
UST Contents: OTHER
Other Content Info: MOTOR VEHICLE FUEL
Reg Status: DEFICIENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Remove Close Date: 2010-06-14 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: SINGLE WALL
Delivery System: PRESSURE
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T004
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: SHELL RACK SUMP FOR RACK 5/AT5292
Capacity Gallons: 846
UST Contents: OTHER
Other Content Info: MOTOR VEHICLE FUEL
Reg Status: REMOVED
Remove Close Date: 2007-01-22 00:00:00
Year Installed: Not reported
Pipe Type: SINGLE WALL
Delivery System: GRAVITY
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T005
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: BURNER SUMP D-111 (UST "D2 ") AT5487
Capacity Gallons: 235
UST Contents: OTHER
Other Content Info: MOTOR VEHICLE FUEL
Reg Status: REMOVED
Remove Close Date: 2011-01-27 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: PRESSURE
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T006
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: VAPOR RECOVERY SATURATOR/AT5374
Capacity Gallons: 1650
UST Contents: OTHER
Other Content Info: MOTOR VEHICLE FUEL
Reg Status: REMOVED
Remove Close Date: 2008-11-18 00:00:00
Year Installed: 1976-01-01 00:00:00
Pipe Type: Not reported
Delivery System: PRESSURE
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T007
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: VAPOR CONDENSATE - (UST "D4") AT5487
Capacity Gallons: 430
UST Contents: OTHER
Other Content Info: Not reported
Reg Status: REMOVED
Remove Close Date: 2011-01-14 00:00:00
Year Installed: 1974-03-01 00:00:00
Pipe Type: SINGLE WALL
Delivery System: GRAVITY
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T008
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: (UST "A")' AT5319
Capacity Gallons: 294
UST Contents: Not reported
Other Content Info: 'OFF SPEC FUELS'
Reg Status: REMOVED
Remove Close Date: 2009-01-06 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: Not reported
UST Monitor Method: Not reported

UST Name: UNDERGROUND TANK 100804 T009
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: AT5405
Capacity Gallons: 370
UST Contents: Not reported
Other Content Info: ETHANOL
Reg Status: CLOSED
Remove Close Date: 2009-04-01 00:00:00
Year Installed: 2003-08-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T010
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: AT5405

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Capacity Gallons: 370
UST Contents: Not reported
Other Content Info: ETHANOL
Reg Status: CLOSED
Remove Close Date: 2009-04-01 00:00:00
Year Installed: 2003-08-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T011
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: AT5412
Capacity Gallons: 300
UST Contents: Not reported
Other Content Info: Not reported
Reg Status: REMOVED
Remove Close Date: 2009-06-03 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION

UST Name: UNDERGROUND TANK 100804 T012
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: DOUBLE WALL
Additional Id: NT2503
Capacity Gallons: 4000
UST Contents: OTHER
Other Content Info: Not reported
Reg Status: ACTIVE
Remove Close Date: Not reported
Year Installed: 2010-06-07 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 46
UST Monitor Method: DW TANK W/ CONSTANT VACUUM INTERSTITIAL W/ ALARM; SW GRAVITY ABOVEGROUND PIPING W/VISUAL MONIT; NO SUMPS OR UDCS.

UST Name: UNDERGROUND TANK 100804 T013
Last Update: 2012-11-02 14:17:38
Permit Number: 100804
Tank Type: SINGLE WALL
Additional Id: AT5461 (UST "C1")
Capacity Gallons: 1500
UST Contents: LEADED
Other Content Info: FUEL WATER SEPARATOR
Reg Status: REMOVED
Remove Close Date: 2010-06-14 00:00:00
Year Installed: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: Not reported
UST Monitor Method: Not reported

Active Permits:

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: FUEL ADDITIVE
Other Information: HI-TEC 6591S (MVA-4)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 64742-95-6
Name: FUEL ADDITIVE
Other Information: NEMO 1121P
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 134 AQUEOUS SOL'N W/LESS 10% ORG
Other Information: WASTEWATER WITH BENZENE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 352 ORGANIC SOLIDS (OTHER)
Other Information: SOIL W/PB
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 291 LATEX WASTE
Other Information: Not reported
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 352 ORGANIC SOLIDS (OTHER)
Other Information: RAGS, SOIL, FOAM LOGS WITH GASOLINE
Material Waste: Waste

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 352 ORGANIC SOLIDS (OTHER) PAINT CHIPS
Other Information: PAINT CHIPS
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 74-86-2
Name: ACETYLENE GAS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 68476-34-6
Name: DIESEL; (MV-12, 17, 23, 8, 11, 29)
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 7782-44-7
Name: OXYGEN GAS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: MIXTURE
Name: PETROLEUM HYDROCARBONS
Other Information: TRANSMIX (MV-2-31,32)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 241 TANK BOTTOM WASTE
Other Information: TANK BOTTOM SLUDGE
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: FUEL ADDITIVE
Other Information: AP 4001 FUEL ADDITIVE
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 214 UNSPEC SOLVENT MIXTURE
Other Information: PAINT AND RELATED MATERIALS (343)
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 343 UNSPEC ORGANIC LIQUID MIXTURE (OTHER) TANK
Other Information: TANK CLEANING WASTEWATER (GASOLINE)
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 611 CONTAMINATED SOIL
Other Information: Not reported
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 64-17-5
Name: DENATURED ETHANOL
Other Information: ETHANOL 95% (MV-21-22)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 7727-37-9
Name: NITROGEN GAS
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: PRESSURE RELEASE
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 74-98-6

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Name: PROPANE, LIQUIFIED PETROLEUM COMPRESSED GAS
Other Information: (2X100; 1X500)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: PRESSURE RELEASE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 7681-52-9
Name: SODIUM HYPOCHLORITE
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: REACTIVE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: MIXTURE
Name: FUEL ADDITIVE
Other Information: HITEC 6676 C
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: MIXTURE
Name: KEROPUR
Other Information: AP-297-15 FUEL ADDITIVE MVA-1 AG-1
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 112-34-5
Name: LIGHT WATER FC-600
Other Information: BRAND ATC/AFFF
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: CHRONIC

Facility Id: 100804
Update Date: 11/02/2012
Case Number: MIXTURE
Name: UNISOL LIQUID
Other Information: UNISOL LIQUID RED BK-50 LR-1,5
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 221 WASTE OIL & MIXED OIL
Other Information: USED OIL
Material Waste: Waste

Map ID
Direction
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 64-19-7
Name: ACETIC ACID
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 8006-61-9
Name: PETROLEUM HYDROCARBON
Other Information: GASOLINE (MV1,3,4,5,6,7,9,10,13,14,15,16,18,19,25-28)
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: ACUTE

Facility Id: 100804
Update Date: 11/02/2012
Case Number: MIXTURE
Name: FUEL ADDITIVE
Other Information: MCC LUBRICITY FUEL ADDITIVE
Material Waste: Material
Hazardous Categories 1: FIRE
Hazardous Categories 2: CHRONIC

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 7664-38-2
Name: PHOSPHORIC ACID
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: ACUTE
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: 7631-90-5
Name: SODIUM BISULFITE
Other Information: Not reported
Material Waste: Material
Hazardous Categories 1: REACTIVE
Hazardous Categories 2: Not reported

Facility Id: 100804
Update Date: 11/02/2012
Case Number: Not reported
Name: WASTE 132 AQUEOUS SOL'N WITH METALS
Other Information: AQUEOUS SOLUTION WITH AS, CD
Material Waste: Waste
Hazardous Categories 1: Not reported
Hazardous Categories 2: Not reported

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Violations Active Permits:

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV1601
Violation: HAZWASTE TANKS W/O P.E. ASSESSMENT
Violation Citation: Failed to obtain a P.E. assessment for hazardous waste tank system.
66265.191(a) or 66265.192(a)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 01/12/2005
Violation Code: 6HV0202
Violation: WASTE CONTAINER W/O LABELS
Violation Citation: Hazardous waste containers &/or tanks are missing labels, accumulation
date and/or are improperly labeled. CCR 66262.34(a)(2);
66262.34(a)(3) & 66262.34(f)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 11/20/2009
Violation Code: 6HV1009
Violation: HMBP: INADEQUATE SITE MAP
Violation Citation: Business Plan does not have a site map which provides sufficient or
complete information for emergency response agencies. HSC 25509(a)(5)
& 25505(a)(2)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 11/01/2005
Violation Code: 6HV0207
Violation: FIRE/EXPLOSION/RELEASE NOT MINIMIZED
Violation Citation: Facility not maintained &/operated to minimize possibility of fire,
explosion or release. CCR 66265.31
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV3553
Violation: SWPP1: NO HOURLY LLD MONITORING
Violation Citation: SINGLE WALLED PRESSURIZED PIPING: OPTION 1-Hourly line leak detector
monitoring not performed. 25284.1(a)(4) (C); 2643(c)(1)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV0202
Violation: WASTE CONTAINER W/O LABELS
Violation Citation: Hazardous waste containers &/or tanks are missing labels, accumulation
date and/or are improperly labeled. CCR 66262.34(a)(2);
66262.34(a)(3) & 66262.34(f)
Activity: ACTIVE

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3107
Violation: MONITORING PROCEDURES NOT AVAIL/TO HMD
Violation Citation: Monitoring procedures not available/complete/submitted to HMD 2632(b)&(d), 2634(d), 2641(h), 2711(a)(9)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3110
Violation: NO ANNUAL CERT OF ATG AND SENSORS
Violation Citation: Annual certification for ATG and/or sensors not completed (existing tank systems only). 2641(j), 2638
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 10/17/2011
Violation Code: 6HV3105
Violation: NO CURRENT FINANCIAL RESPONSIBILITY
Violation Citation: Current evidence of financial responsibility not available. 25292.2(a), 25299.33; 2809
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV0143
Violation: TP NOTIFICATION INCOMPLETE/INCORRECT
Violation Citation: TIERED PERMITTING: TP Notification has incomplete or incorrect information. 25201
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV0202
Violation: WASTE CONTAINER W/O LABELS
Violation Citation: Hazardous waste containers &/or tanks are missing labels, accumulation date and/or are improperly labeled. CCR 66262.34(a)(2); 66262.34(a)(3) & 66262.34(f)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV1611
Violation: IMPROPER CLOSURE OF HW TANK UNIT
Violation Citation: Failed to properly complete and/or document closure for a hazardous waste tank system. 67383.3 & 66265.197(a)&(b)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012

Map ID
Direction
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Elevation

MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Inspection Date: 04/20/2004
Violation Code: 6HV3301
Violation: CATH PROT:SYSTEM NOT CHECKED AS REQ
Violation Citation: System not checked as required by tester (at 6 months/3yrs.)
2635(a)(2)(A)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV3554
Violation: SWPP1: MONTHLY ELLD NOT DONE
Violation Citation: SINGLE WALLED PRESSURIZED PIPING: OPTION 1:Monthly electronic line
leak detection not performed. 2643(c)(2)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 11/20/2009
Violation Code: 6HV0224
Violation: MISMANAGED EMPTY CONTAINERS >5GALS.
Violation Citation: Failed to mark date on empty container larger than 5 gallons and/or
manage it within one year. 66261.7(e) & (f).
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV1009
Violation: HMBP: INADEQUATE SITE MAP
Violation Citation: Business Plan does not have a site map which provides sufficient or
complete information for emergency response agencies. HSC 25509(a)(5)
& 25505(a)(2)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV1018
Violation: INVENTORY INCOMPLETE/NOT AMENDED
Violation Citation: Inventory not amended for 100% increase of hazardous material onsite
or inventory is incomplete. 25509, 25510
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV0201
Violation: WASTE CONTAINER NOT CLOSED
Violation Citation: Hazardous waste containers are not kept closed while in storage. CCR
66265.173(a)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3105

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Violation: NO CURRENT FINANCIAL RESPONSIBILITY
Violation Citation: Current evidence of financial responsibility not available.
25292.2(a), 25299.33; 2809
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3192
Violation: NO D.O INSPECTION/INCOMPL;NO REPORTS
Violation Citation: Designated Operator monthly inspection not conducted or incomplete; or
DO inspection reports not onsite 2715 (c)(d)(e)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV1605
Violation: NO DAILY TANK INSPECTION/LOG
Violation Citation: Failed to inspect and/or document daily HW tank system inspections.
66265.195 (c)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV1006
Violation: HMBP: INVENTORY INADEQUATE
Violation Citation: Business Plan inventory does not list all hazardous materials on site
in disclosable quantities. HSC 25504(a),25503.5
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 09/20/2004
Violation Code: 6HV1603
Violation: NO 2ND CONTAINMENT FOR HW TANK
Violation Citation: Failed to provide proper secondary containment and/or leak detection
for Hazardous waste tank system. 66265.193(a)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3101
Violation: UPF PERMIT NOT CURRENT/ONSITE
Violation Citation: Current UPF permit not obtained/not available. 25284; 68.905, 68.1003,
68.1005
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3254
Violation: UST SYSTEM W/O APPROVED OVERFILL PROTECT
Violation Citation: UST system does not have an approved overfill protection system.
2635(b)(2)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV1603
Violation: NO 2ND CONTAINMENT FOR HW TANK
Violation Citation: Failed to provide proper secondary containment and/or leak detection for Hazardous waste tank system. 66265.193(a)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3191
Violation: NO D.O. CERT/NOTIFICATION/CHANGE
Violation Citation: Designated Operator Notification/Change form not submitted and/or D.O. not ICC certified. 2715 (a)(b)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3701
Violation: SWGP:PIPE INTEG NOT TESTED EVERY 2 YEARS
Violation Citation: SINGLE WALLED GRAVITY PIPING:Piping integrity test not performed every 2 years. 2643(e)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV3254
Violation: UST SYSTEM W/O APPROVED OVERFILL PROTECT
Violation Citation: UST system does not have an approved overfill protection system. 2635(b)(2)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 09/20/2004
Violation Code: 6HV1601
Violation: HAZWASTE TANKS W/O P.E. ASSESSMENT
Violation Citation: Failed to obtain a P.E. assessment for hazardous waste tank system. 66265.191(a) or 66265.192(a)

Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 11/20/2009
Violation Code: 6HV0137
Violation: MANIFEST NOT COMPLETED PROPERLY
Violation Citation: Generator of hazardous waste has not completed the hazardous waste manifest with all information required. CCR 66262.23(a)

Activity: ACTIVE

Facility Id: 100804

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV1602
Violation: P.E. ASSESSMENT REPORT NOT COMPLETE
Violation Citation: Failed to provide adequate P.E. Assessment report for a HW tank system. 66265.191(g) or 66265.192(k)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3108
Violation: UST ER RESPONSE PLAN NOT COMPLETE/AVAIL
Violation Citation: Emergency Response Plan is not available/complete. 25289(b); 2632(b), 2634(e), 2641(h)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3265
Violation: SYS NOT RUN TO PREVENT SPILL/OVERFILL
Violation Citation: UST system not operated to prevent spills and/or overfills. 25292.1(a)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV3302
Violation: IMPRESSED CURRENT TEST NOT DONE ON TIME
Violation Citation: CATHODIC PROTECTION: Impressed current system check not done every 60 days. 2635 (a)(2)(A)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 11/01/2005
Violation Code: 6HV0301
Violation: HAZWASTE:UNAUTHORIZED DISPOSAL
Violation Citation: Disposal or causing the disposal of hazardous waste to an unauthorized point (ground, storm drain, sewer system, trash, or air). HSC 25189.5(a) or 25189(d)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV1611
Violation: IMPROPER CLOSURE OF HW TANK UNIT
Violation Citation: Failed to properly complete and/or document closure for a hazardous waste tank system. 67383.3 & 66265.197(a)&(b)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV0402

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Violation: TRAINING PROGRAM NOT ADEQUATE
Violation Citation: Personnel training is not adequate to ensure compliance with hazardous waste regulations. CCR 66265.16(a)&(b)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3193
Violation: NO TRAINING/RECORD INCOMPLETE-NOT ONSITE
Violation Citation: Facility employee(s) are not trained, training records are incomplete, and/or not onsite. 2715(f)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3269
Violation: UST SYSTEM NOT CONT. MONITORED W/VPH
Violation Citation: UST system not continuously monitored using Vacuum/Pressure/Hydrostatic (VPH) system (for tank installs on or after 7/1/04). 25290.1 (d)&(e)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV1009
Violation: HMBP: INADEQUATE SITE MAP
Violation Citation: Business Plan does not have a site map which provides sufficient or complete information for emergency response agencies. HSC 25509(a)(5) & 25505(a)(2)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/20/2004
Violation Code: 6HV3701
Violation: SWGP:PIPE INTEG NOT TESTED EVERY 2 YEARS
Violation Citation: SINGLE WALLED GRAVITY PIPING:Piping integrity test not performed every 2 years. 2643(e)
Activity: ACTIVE

Facility Id: 100804
Update Date: 11/02/2012
Inspection Date: 04/27/2006
Violation Code: 6HV3104
Violation: FORMS A & B NOT AVAIL./SUBMITTED
Violation Citation: CUPA UST form(s) A and/or B not available/complete/submitted to HMD. 25286(a); 2711
Activity: ACTIVE

Facility Id: 128545
Business Type: 6HK78
EPA Id Number: CAD000603795
APN: 433-240-15-00

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, LP/KINDER MORGAN (Continued)

S103994117

Last HMMD Inspection: 04/23/2003
Permit Status: INAC
Permit Expiration: 08/31/2004
Facility Owner: EQUILON ENTERPRISES LLC
Facility Address: 9966 SAN DIEGO MISSION RD.
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92108
UST Owner: Not reported
Handle Regulated Hazmat: Y
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

Violations Inactive Permits:

Facility Id: 128545
Update Date: 11/02/2012
Inspection Date: 04/23/2003
Violation Code: 6HV0301
Violation: HAZWASTE:UNAUTHORIZED DISPOSAL
Violation Citation: Disposal or causing the disposal of hazardous waste to an unauthorized point (ground, storm drain, sewer system, trash, or air). HSC 25189.5(a) or 25189(d)
Activity: Inactive Permit

[Click this hyperlink](#) while viewing on your computer to access 1 additional CA_HMMD: record(s) in the EDR Site Report.

EMI:

Year: 2006
County Code: 37
Air Basin: SD
Facility ID: 1069
Air District Name: SD
SIC Code: 5171
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 5.14
Reactive Organic Gases Tons/Yr: 5.14
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

C40
NE
< 1/8
0.017 mi.
88 ft.

MISSION VALLEY TERMINAL AT0404
9950 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108

San Diego Co. HMMD
SAN DIEGO CO. SAM

S106061820
N/A

Site 6 of 20 in cluster C

Relative:
Higher

SAN DIEGO CO. HMMD:

Facility Id: 121132
Business Type: Not reported
EPA Id Number: Not reported
APN: 433-240-27-00
Last HMMD Inspection: Not reported
Permit Status: INAC
Permit Expiration: Not reported
Facility Owner: EXXON
Facility Address: 9950 SAN DIEGO MISSION RD
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92108-1721
UST Owner: EXXON
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Not reported
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

Actual:
74 ft.

UST:

UST Name: UNDERGROUND TANK 121132 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 121132
Tank Type: SINGLE WALL
Additional Id: 001
Capacity Gallons: 15000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1987-01-12 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

SAN DIEGO CO. SAM:

Case Number: H21132-001
Agency: CA Regional Water Quality Control Board
Funding: Non Billable
Facility Type: Drinking Water Aquifer Impacted
Facility Status: Preliminary Assessment
Date: 5/23/1994
Date Began: 5/23/1994

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

C41
NE
< 1/8
0.017 mi.
88 ft.

**SHELL OIL PRODUCTS US-MISSION VALLEY TER
9950 SAN DIEGO MISSION ROAD
SAN DIEGO, CA 92108**

**RCRA-LQG 1007198641
HAZNET CAD000603795**

Site 7 of 20 in cluster C

**Relative:
Higher**

RCRA-LQG:

Date form received by agency: 02/19/2004

Facility name: SHELL OIL PRODUCTS US-MISSION VALLEY TER

Facility address: 9950 SAN DIEGO MISSION ROAD

SAN DIEGO, CA 92108

EPA ID: CAD000603795

Mailing address: P. O. BOX 2648, TSP1505A

HOUSTON, TX 772522648

Contact: SONDRA E BIENVENU

Contact address: Not reported

Not reported

Contact country: US

Contact telephone: (713) 241-5036

Contact email: SEBIENVENU@SHELLOPUS.COM

EPA Region: 09

Classification: Large Quantity Generator

Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: EQUILON ENTERPRISES LLD DBA SHELL OIL PR

Owner/operator address: Not reported

Not reported

Owner/operator country: US

Owner/operator telephone: Not reported

Legal status: Private

Owner/Operator Type: Operator

Owner/Op start date: 07/01/1998

Owner/Op end date: Not reported

Owner/operator name: EQUILON ENTERPRISES LLC DBA SHELL OIL PR

Owner/operator address: P. O. BOX 2648
HOUSTON, TX 77252

Owner/operator country: US

Owner/operator telephone: Not reported

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: 07/01/1998

Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL OIL PRODUCTS US-MISSION VALLEY TER (Continued)

1007198641

Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Historical Generators:

Date form received by agency: 03/08/1994
Site name: SHELL OIL COMPANY
Classification: Large Quantity Generator

Date form received by agency: 02/24/1992
Site name: SHELL-MISSION VALLEY PLANT
Classification: Large Quantity Generator

Date form received by agency: 04/13/1990
Site name: SHELL OIL CO- MISSION VALLEY PLANT
Classification: Large Quantity Generator

Violation Status: No violations found

HAZNET:

envid: 1007198641
Year: 2002
GEPaid: CAD000603795
Contact: SONDR A E BIENVENU
Telephone: 7132415036
Mailing Name: Not reported
Mailing Address: P. O. BOX 2648, TSP1505A
Mailing City, St, Zip: HOUSTON, TX 772522648
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Recycler
Tons: 0.52
Facility County: San Diego

envid: 1007198641
Year: 2001
GEPaid: CAD000603795
Contact: SONDR A E BIENVENU

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL OIL PRODUCTS US-MISSION VALLEY TER (Continued)

1007198641

Telephone: 7132415036
Mailing Name: Not reported
Mailing Address: P. O. BOX 2648, TSP1505A
Mailing City,St,Zip: HOUSTON, TX 772522648
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Transfer Station
Tons: 0.15
Facility County: San Diego

envid: 1007198641
Year: 2001
GEPaid: CAD000603795
Contact: SONDR E BIENVENU
Telephone: 7132415036
Mailing Name: Not reported
Mailing Address: P. O. BOX 2648, TSP1505A
Mailing City,St,Zip: HOUSTON, TX 772522648
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Empty containers less than 30 gallons
Disposal Method: Transfer Station
Tons: 0.01
Facility County: San Diego

envid: 1007198641
Year: 2001
GEPaid: CAD000603795
Contact: SONDR E BIENVENU
Telephone: 7132415036
Mailing Name: Not reported
Mailing Address: P. O. BOX 2648, TSP1505A
Mailing City,St,Zip: HOUSTON, TX 772522648
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Contaminated soil from site clean-up
Disposal Method: Transfer Station
Tons: 0.5
Facility County: San Diego

envid: 1007198641
Year: 2000
GEPaid: CAD000603795
Contact: SONDR E BIENVENU
Telephone: 7132415036
Mailing Name: Not reported
Mailing Address: P. O. BOX 2648, TSP1505A
Mailing City,St,Zip: HOUSTON, TX 772522648
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Treatment, Tank

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL OIL PRODUCTS US-MISSION VALLEY TER (Continued)

1007198641

Tons: 16.68
Facility County: San Diego

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

**C42
NE
< 1/8
0.017 mi.
88 ft.**

**MISSION VALLEY TERMINAL
9950 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108**

**HIST UST U001572764
N/A**

Site 8 of 20 in cluster C

**Relative:
Higher**

HIST UST:

**Actual:
74 ft.**

Region: STATE
Facility ID: 00000035005
Facility Type: Other
Other Type: REFINED PETROLEUM CO
Contact Name: E. W. HALE
Telephone: 6192836511
Owner Name: SAN DIEGO PIPELINE COMPANY
Owner Address: 610 SOUTH MAIN STREET
Owner City,St,Zip: LOS ANGELES, CA 90014
Total Tanks: 0007

Tank Num: 001
Container Num: VAP SAT #2
Year Installed: 1974
Tank Capacity: 00001470
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Visual

Tank Num: 002
Container Num: SUMP D-106
Year Installed: 1963
Tank Capacity: 00001466
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Visual

Tank Num: 003
Container Num: OWS #1
Year Installed: 1963
Tank Capacity: 00000808
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: Visual

Tank Num: 004
Container Num: SUMP D-108
Year Installed: 1963
Tank Capacity: 00008300
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY TERMINAL (Continued)

U001572764

Leak Detection: Visual

Tank Num: 005
Container Num: MOB ADD 1
Year Installed: 1967
Tank Capacity: 00000750
Tank Used for: PRODUCT
Type of Fuel: 06
Container Construction Thickness: Not reported
Leak Detection: Visual

Tank Num: 006
Container Num: MOB ADD 2
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Visual

Tank Num: 007
Container Num: EXXON ADD.
Year Installed: 1966
Tank Capacity: 00015000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Visual

C43
NE
< 1/8
0.017 mi.
88 ft.

POWERINE OIL CO
9950 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108
Site 9 of 20 in cluster C

RCRA-LQG 1007200769
FINDS CAT000063795

Relative:
Higher

RCRA-LQG:

Date form received by agency: 03/14/2000

Facility name: EQUILON ENTERPRISES LLC/ MISSION VALLEY

Facility address: 9950 SAN DIEGO MISSION ROAD
SAN DIEGO, CA 92108

EPA ID: CAT000063795

Mailing address: PO BOX 2099
HOUSTON, TX 772522099

Contact: SONDRA BIENVENU

Contact address: Not reported
Not reported

Contact country: US

Contact telephone: (713) 241-2258

Contact email: Not reported

EPA Region: 09

Classification: Large Quantity Generator

Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

POWERINE OIL CO (Continued)

1007200769

kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110006533830

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Registry ID: 110055673169

Environmental Interest/Information System

STATE MASTER

C44
NE
< 1/8
0.017 mi.
88 ft.

**MOBIL OIL CORP MISSION
9950 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108**

**RCRA-SQG 1000921663
CAT000623694**

Site 10 of 20 in cluster C

**Relative:
Higher**

RCRA-SQG:

Date form received by agency: 09/01/1996
Facility name: MOBIL OIL CORP MISSION
Facility address: 9950 SAN DIEGO MISSION RD
TANK 5
SAN DIEGO, CA 92108

**Actual:
74 ft.**

EPA ID: CAT000623694
Contact: Not reported
Contact address: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MOBIL OIL CORP MISSION (Continued)

1000921663

Contact country: Not reported
Contact telephone: US
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: MOBIL OIL CORP
Owner/operator address: 3225 GALLOWS RD
FAIRFAX, VA 22037
Owner/operator country: Not reported
Owner/operator telephone: (703) 846-5712
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/01/1996
Site name: MOBIL OIL CORP MISSION
Classification: Small Quantity Generator

Date form received by agency: 09/15/1994

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MOBIL OIL CORP MISSION (Continued)

1000921663

Site name: MOBIL OIL CORP MISSION
Classification: Large Quantity Generator

Date form received by agency: 04/16/1990

Site name: MOBIL OIL CORP
Classification: Large Quantity Generator

Violation Status: No violations found

C45
NE
< 1/8
0.017 mi.
88 ft.

MISSION VALLEY PLANT
9950 SAN DIEGO MISSION RD B
SAN DIEGO, CA 92108

SWEEPS UST **S106929466**
N/A

Site 11 of 20 in cluster C

Relative:
Higher

SWEEPS UST:
Status: Not reported
Comp Number: 4132
Number: Not reported
Board Of Equalization: 44-000074
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004132-000001
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: WASTE
Content: AVIA. GAS
Number Of Tanks: 3

Actual:
74 ft.

Status: Not reported
Comp Number: 4132
Number: Not reported
Board Of Equalization: 44-000074
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004132-000002
Tank Status: Not reported
Capacity: 12000
Active Date: Not reported
Tank Use: CHEMICAL
STG: PRODUCT
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 4132
Number: Not reported
Board Of Equalization: 44-000074
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004132-000003

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY PLANT (Continued)

S106929466

Tank Status: Not reported
Capacity: 12000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: OTHER
Number Of Tanks: Not reported

C46
NE
< 1/8
0.017 mi.
88 ft.

MISSION VALLEY TERMINAL
9950 SAN DIEGO MISSION ROAD
SAN DIEGO, CA 92108

RCRA-LQG 1007200773
WDS CAT000603795

Site 12 of 20 in cluster C

Relative:
Higher

RCRA-LQG:

Date form received by agency: 10/12/2000

Facility name: MISSION VALLEY TERMINAL

Actual:
74 ft.

Site name: EQUILON ENTERPRISES LLC/MISSION VALLEY

Facility address: 9950 SAN DIEGO MISSION ROAD

SAN DIEGO, CA 92108

EPA ID: CAT000603795

Mailing address: PO BOX 2099

HOUSTON, TX 772522099

Contact: SONDRA BEINVENU

Contact address: Not reported

Not reported

Contact country: US

Contact telephone: (713) 241-2258

Contact email: Not reported

EPA Region: 09

Classification: Large Quantity Generator

Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Handler Activities Summary:

U.S. importer of hazardous waste: No

Mixed waste (haz. and radioactive): No

Recycler of hazardous waste: No

Transporter of hazardous waste: No

Treater, storer or disposer of HW: No

Underground injection activity: No

On-site burner exemption: No

Furnace exemption: No

Used oil fuel burner: No

Used oil processor: No

User oil refiner: No

Used oil fuel marketer to burner: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY TERMINAL (Continued)

1007200773

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 03/04/1999
Site name: SHELL OIL COMPANY MISSION VALLEY PLANT
Classification: Large Quantity Generator

Violation Status: No violations found

WDS:

Facility ID: San Diego 000000506
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAG919002 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 9
Facility Telephone: Not reported
Facility Contact: R.G. GRANADO
Agency Name: KINDER MORGAN MVT SFPP L.P.
Agency Address: 1100 TOWN & COUNTRY RD
Agency City,St,Zip: ORANGE 92868
Agency Contact: Scott Martin
Agency Telephone: 7144440111
Agency Type: Private
SIC Code: 5171
SIC Code 2: Not reported
Primary Waste Type: Hazardous/Influent or Solid Wastes that contain toxic, corrosive, ignitable or reactive substances and must be managed according to applicable DOHS standards.
Primary Waste: CNWTRS
Waste Type2: Not reported
Waste2: Contaminated Ground Water
Primary Waste Type: Hazardous/Influent or Solid Wastes that contain toxic, corrosive, ignitable or reactive substances and must be managed according to applicable DOHS standards.
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 1
Baseline Flow: 0
Reclamation: No reclamation requirements associated with this facility.
POTW: The facility is not a POTW.
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity: Category A - Any major NPDES facility, any non-NPDES facility (particularly those with toxic wastes) that would be a major if

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

MISSION VALLEY TERMINAL (Continued)

1007200773

discharge was made to surface or ground waters, or any Class I disposal site. Includes any small-volume complex facility (particularly those with toxicwastes) with numerous discharge points, leak detection systems or ground water monitoring wells.

**C47
 NE
 < 1/8
 0.017 mi.
 88 ft.**

**TOSCO CORPORATION, SAN DIEGO TERMINAL
 9950 SAN DIEGO MISSION ROAD
 SAN DIEGO, CA 92120**

**RCRA NonGen / NLR
 US AIRS**

**1000175605
 CAD000628743**

Site 13 of 20 in cluster C

**Relative:
 Higher**

RCRA NonGen / NLR:

Date form received by agency: 08/18/1980

Facility name: TOSCO CORPORATION, SAN DIEGO TERMINAL

Facility address: 9950 SAN DIEGO MISSION ROAD
 SAN DIEGO, CA 92120

EPA ID: CAD000628743

Mailing address: 10100 SANTA MONICA BOULEVARD
 LOS ANGELES, CA 90067

Contact: ENVIRONMENTAL MANAGER

Contact address: 9950 SAN DIEGO MISSION ROAD
 SAN DIEGO, CA 92120

Contact country: US

Contact telephone: (213) 552-7000

Contact email: Not reported

EPA Region: 09

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

**Actual:
 74 ft.**

Owner/Operator Summary:

Owner/operator name: SAN DIEGO PIPELINE COMPANY

Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999

Owner/operator country: Not reported

Owner/operator telephone: (415) 555-1212

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: Not reported

Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED

Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999

Owner/operator country: Not reported

Owner/operator telephone: (415) 555-1212

Legal status: Private

Owner/Operator Type: Operator

Owner/Op start date: Not reported

Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No

Mixed waste (haz. and radioactive): No

Recycler of hazardous waste: No

Transporter of hazardous waste: No

Treater, storer or disposer of HW: No

Underground injection activity: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOSCO CORPORATION, SAN DIEGO TERMINAL (Continued)

1000175605

On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

AIRS (AFS):

Compliance and Violation Data Major Sources:

EPA plant ID: 110002334493
Plant name: SFPPLP
Plant address: 9950 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108
County: SAN DIEGO
Region code: 09
Dunn & Bradst #: 080912587
Air quality cntrl region: 029
Sic code: 4613
Sic code desc: REFINED PETROLEUM PIPELINES
North Am. industrial classf: 486910
NAIC code description: Pipeline Transportation of Refined Petroleum Products
Default compliance status: IN COMPLIANCE - INSPECTION
Default classification: POTENTIAL EMISSIONS ARE BELOW ALL APPLICABLE MAJOR SOURCE THRESHOLDS IF AND ONLY IF THE SOURCE COMPLIES WITH FEDERALLY ENFORCEABLE REGULATIONS OR LIMITATIONS.
Govt facility: ALL OTHER FACILITIES NOT OWNED OR OPERATED BY A FEDERAL, STATE, OR LOCAL GOVERNMENT
Current HPV: Not reported

**C48
NE
< 1/8
0.017 mi.
88 ft.**

**SFPP, L.P. MISSION VALLEY TERMINAL
9950 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108**

**RCRA-LQG 1000409080
CAD080912587**

Site 14 of 20 in cluster C

**Relative:
Higher**

RCRA-LQG:

Date form received by agency: 03/01/2014
Facility name: SFPP, L.P. MISSION VALLEY TERMINAL
Facility address: 9950 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108
EPA ID: CAD080912587
Mailing address: TOWN AND COUNTRY RD
ORANGE, CA 92868
Contact: KARINA G HANKINS
Contact address: TOWN AND COUNTRY RD
ORANGE, CA 92868
Contact country: Not reported
Contact telephone: (714) 560-4887
Contact email: KARINA_HANKINS@KINDERMORGAN.COM
EPA Region: 09
Land type: Private

**Actual:
74 ft.**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, L.P. MISSION VALLEY TERMINAL (Continued)

1000409080

Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: SFPP, L.P.
Owner/operator address: TOWN AND COUNTRY RD
ORANGE, CA 92868
Owner/operator country: Not reported
Owner/operator telephone: (714) 560-4887
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 02/08/1990
Owner/Op end date: Not reported

Owner/operator name: SFPP, L.P.
Owner/operator address: TOWN AND COUNTRY RD
ORANGE, CA 92868
Owner/operator country: Not reported
Owner/operator telephone: (714) 560-4887
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 02/08/1990
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE
. Waste code: D004

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, L.P. MISSION VALLEY TERMINAL (Continued)

1000409080

- . Waste name: ARSENIC
- . Waste code: D006
- . Waste name: CADMIUM
- . Waste code: D018
- . Waste name: BENZENE

Historical Generators:

Date form received by agency: 04/27/2012
Site name: SFPP, L.P. MISSION VALLEY TERMINAL
Classification: Large Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE
- . Waste code: D004
- . Waste name: ARSENIC
- . Waste code: D006
- . Waste name: CADMIUM
- . Waste code: D018
- . Waste name: BENZENE

Date form received by agency: 08/03/2010
Site name: SFPP, L.P. - MISSION VALLEY
Classification: Large Quantity Generator

- . Waste code: D002
- . Waste name: CORROSIVE WASTE
- . Waste code: D004
- . Waste name: ARSENIC
- . Waste code: D006
- . Waste name: CADMIUM
- . Waste code: D008
- . Waste name: LEAD
- . Waste code: D009
- . Waste name: MERCURY
- . Waste code: D018
- . Waste name: BENZENE

Date form received by agency: 02/29/2008
Site name: SFPP, L.P. MISSION VALLEY TERMINAL
Classification: Large Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE
- . Waste code: D018
- . Waste name: BENZENE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, L.P. MISSION VALLEY TERMINAL (Continued)

1000409080

Date form received by agency: 02/28/2006

Site name: SFPP, L.P. MISSION VALLEY TERMINAL

Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

Date form received by agency: 02/27/2004

Site name: SFPP, L.P. MISSION VALLEY TERMINAL

Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

Date form received by agency: 02/27/2002

Site name: SFPP, L.P. MISSION VALLEY TERMINAL

Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D018
. Waste name: BENZENE

Date form received by agency: 10/12/2000

Site name: SFPP, L.P. MISSION VALLEY

Classification: Large Quantity Generator

Date form received by agency: 01/26/1998
Site name: SFPP LP MISSION VALLEY
Classification: Large Quantity Generator

. Waste code: D000
. Waste name: Not Defined

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Date form received by agency: 09/01/1996

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, L.P. MISSION VALLEY TERMINAL (Continued)

1000409080

Site name: SFPP LP MISSION VALLEY
Classification: Large Quantity Generator

Date form received by agency: 02/28/1996

Site name: SFPP, L.P. - MISSION VALLEY TERMINAL
Classification: Large Quantity Generator

Date form received by agency: 03/30/1994

Site name: S.F.P.P., L.P. MISSION VALLEY TERM
Classification: Large Quantity Generator

Date form received by agency: 02/26/1992

Site name: SFPP, L.P. (MISSION VALLEY TR)
Classification: Large Quantity Generator

Date form received by agency: 04/03/1991

Site name: SANTA FE PACIFIC PIPELINE COMPANY
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980

Site name: SFPP LP MISSION VALLEY
Classification: Large Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:

Waste code: D001

Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Amount (Lbs): 467

Waste code: D004

Waste name: ARSENIC

Amount (Lbs): 1494.1

Waste code: D006

Waste name: CADMIUM

Amount (Lbs): 1494.1

Waste code: D018

Waste name: BENZENE

Amount (Lbs): 1129461.3

Facility Has Received Notices of Violations:

Regulation violated: Not reported

Area of violation: Generators - General

Date violation determined: 11/20/2009

Date achieved compliance: 02/16/2010

Violation lead agency: State

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, L.P. MISSION VALLEY TERMINAL (Continued)

1000409080

Enforcement action: WRITTEN INFORMAL
Enforcement action date: 11/20/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 05/13/2008
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: FINAL 3008(A) COMPLIANCE ORDER
Enforcement action date: 05/15/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 04/27/2006
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/27/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 04/20/2004
Date achieved compliance: 07/20/2004
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 04/28/1994
Date achieved compliance: 04/28/1999
Violation lead agency: State
Enforcement action: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SFPP, L.P. MISSION VALLEY TERMINAL (Continued)

1000409080

Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 08/16/2011
Evaluation: NOT A SIGNIFICANT NON-COMPLIER
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 11/20/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 02/16/2010
Evaluation lead agency: State

Evaluation date: 05/13/2008
Evaluation: SIGNIFICANT NON-COMPLIER
Area of violation: Generators - General
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/27/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: Not reported
Evaluation lead agency: Local

Evaluation date: 04/20/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/20/2004
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/28/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/28/1999
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 07/24/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 07/30/1990
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

C49
NE
 < 1/8
 0.017 mi.
 88 ft.

MISSION VALLEY TERMINAL AT0404
9950 SAN DIEGO MISSION RD C
SAN DIEGO, CA 92108

SWEEPS UST **S106929467**
 N/A

Site 15 of 20 in cluster C

Relative:
Higher

SWEEPS UST:
 Status: Active
 Comp Number: 21132
 Number: 9
 Board Of Equalization: 44-000285
 Referral Date: Not reported
 Action Date: 06-26-92
 Created Date: 02-29-88
 Owner Tank Id: Not reported
 SWRCB Tank Id: Not reported
 Tank Status: Not reported
 Capacity: Not reported
 Active Date: Not reported
 Tank Use: Not reported
 STG: Not reported
 Content: Not reported
 Number Of Tanks: Not reported

Actual:
 74 ft.

Status: Not reported
 Comp Number: 21132
 Number: Not reported
 Board Of Equalization: 44-000285
 Referral Date: Not reported
 Action Date: Not reported
 Created Date: Not reported
 Owner Tank Id: Not reported
 SWRCB Tank Id: 37-000-021132-000001
 Tank Status: Not reported
 Capacity: 15000
 Active Date: Not reported
 Tank Use: UNKNOWN
 STG: PRODUCT
 Content: Not reported
 Number Of Tanks: 1

C50
NE
 < 1/8
 0.017 mi.
 88 ft.

MISSION VALLEY BULK FUEL TERMINAL
9950 SAN DIEGO MISSION ROAD
SAN DIEGO, CA 92108

NPDES **S108405207**
SLIC **N/A**
CHMIRS
ENF
HAZNET
ENVIROSTOR

Site 16 of 20 in cluster C

Relative:
Higher

NPDES:
 Npdes Number: CAS000001
 Facility Status: Active
 Agency Id: 0
 Region: 9
 Regulatory Measure Id: 436547
 Order No: 97-03-DWQ
 Regulatory Measure Type: Enrollee
 Place Id: Not reported
 WDID: 9 371024188
 Program Type: Industrial
 Adoption Date Of Regulatory Measure: Not reported

Actual:
 74 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Effective Date Of Regulatory Measure:	04/05/2013
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	SFPP LP
Discharge Address:	1100 Town and Country Rd
Discharge City:	Orange
Discharge State:	California
Discharge Zip:	92868
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESCRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	9
Regulatory Measure Id:	218952
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	9 371018788
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	05/09/2008
PROCESSED DATE:	05/10/2004
STATUS CODE NAME:	Active
STATUS DATE:	05/10/2004
PLACE SIZE:	2
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	BOYD Anderson
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	6195841055
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Coastal Transportation
OPERATOR ADDRESS:	1214 S 51st Ave
OPERATOR CITY:	Phoenix
OPERATOR STATE:	Arizona
OPERATOR ZIP:	85043
OPERATOR CONTACT NAME:	DAVE Huber
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	713-784-1010
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

EMERGENCY PHONE NO: 619-584-1055
EMERGENCY PHONE EXT: Not reported
CONSTYPE ABOVE GROUND IND: Not reported
CONSTYPE BELOW GROUND IND: Not reported
CONSTYPE CABLE LINE IND: Not reported
CONSTYPE COMM LINE IND: Not reported
CONSTYPE COMMERTIAL IND: Not reported
CONSTYPE ELECTRICAL LINE IND: Not reported
CONSTYPE GAS LINE IND: Not reported
CONSTYPE INDUSTRIAL IND: Not reported
CONSTYPE OTHER DESRIPTION: Not reported
CONSTYPE OTHER IND: Not reported
CONSTYPE RECONS IND: Not reported
CONSTYPE RESIDENTIAL IND: Not reported
CONSTYPE TRANSPORT IND: Not reported
CONSTYPE UTILITY DESCRIPTION: Not reported
CONSTYPE UTILITY IND: Not reported
CONSTYPE WATER SEWER IND: Not reported
DIR DISCHARGE USWATER IND: Not reported
RECEIVING WATER NAME: San Diego Rv
CERTIFIER NAME: Tom Braaten
CERTIFIER TITLE: Vice President
CERTIFICATION DATE: 04-MAY-04
PRIMARY SIC: 4212-Local Trucking Without Storage
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

Npdes Number: CAS000001
Facility Status: Active
Agency Id: 0
Region: 9
Regulatory Measure Id: 218952
Order No: 97-03-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 9 371018788
Program Type: Industrial
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 05/10/2004
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Coastal Transportation
Discharge Address: 1214 S 51st Ave
Discharge City: Phoenix
Discharge State: Arizona
Discharge Zip: 85043
RECEIVED DATE: Not reported
PROCESSED DATE: Not reported
STATUS CODE NAME: Not reported
STATUS DATE: Not reported
PLACE SIZE: Not reported
PLACE SIZE UNIT: Not reported
FACILITY CONTACT NAME: Not reported
FACILITY CONTACT TITLE: Not reported
FACILITY CONTACT PHONE: Not reported
FACILITY CONTACT PHONE EXT: Not reported
FACILITY CONTACT EMAIL: Not reported

Map ID
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Database(s)

EDR ID Number
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MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

OPERATOR NAME: Not reported
OPERATOR ADDRESS: Not reported
OPERATOR CITY: Not reported
OPERATOR STATE: Not reported
OPERATOR ZIP: Not reported
OPERATOR CONTACT NAME: Not reported
OPERATOR CONTACT TITLE: Not reported
OPERATOR CONTACT PHONE: Not reported
OPERATOR CONTACT PHONE EXT: Not reported
OPERATOR CONTACT EMAIL: Not reported
OPERATOR TYPE: Not reported
DEVELOPER NAME: Not reported
DEVELOPER ADDRESS: Not reported
DEVELOPER CITY: Not reported
DEVELOPER STATE: Not reported
DEVELOPER ZIP: Not reported
DEVELOPER CONTACT NAME: Not reported
DEVELOPER CONTACT TITLE: Not reported
CONSTYPE LINEAR UTILITY IND: Not reported
EMERGENCY PHONE NO: Not reported
EMERGENCY PHONE EXT: Not reported
CONSTYPE ABOVE GROUND IND: Not reported
CONSTYPE BELOW GROUND IND: Not reported
CONSTYPE CABLE LINE IND: Not reported
CONSTYPE COMM LINE IND: Not reported
CONSTYPE COMMERCIAL IND: Not reported
CONSTYPE ELECTRICAL LINE IND: Not reported
CONSTYPE GAS LINE IND: Not reported
CONSTYPE INDUSTRIAL IND: Not reported
CONSTYPE OTHER DESCRIPTION: Not reported
CONSTYPE OTHER IND: Not reported
CONSTYPE RECONS IND: Not reported
CONSTYPE RESIDENTIAL IND: Not reported
CONSTYPE TRANSPORT IND: Not reported
CONSTYPE UTILITY DESCRIPTION: Not reported
CONSTYPE UTILITY IND: Not reported
CONSTYPE WATER SEWER IND: Not reported
DIR DISCHARGE USWATER IND: Not reported
RECEIVING WATER NAME: Not reported
CERTIFIER NAME: Not reported
CERTIFIER TITLE: Not reported
CERTIFICATION DATE: Not reported
PRIMARY SIC: Not reported
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

Npdes Number: Not reported
Facility Status: Not reported
Agency Id: Not reported
Region: 9
Regulatory Measure Id: 436547
Order No: Not reported
Regulatory Measure Type: Industrial
Place Id: Not reported
WDID: 9 371024188
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported

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Database(s)

EDR ID Number
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MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	04/05/2013
PROCESSED DATE:	04/05/2013
STATUS CODE NAME:	Active
STATUS DATE:	04/05/2013
PLACE SIZE:	30.1
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Frank Luera
FACILITY CONTACT TITLE:	Area Manager
FACILITY CONTACT PHONE:	619-778-5215
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	lueraf@kindermorgan.com
OPERATOR NAME:	SFPP LP
OPERATOR ADDRESS:	1100 Town and Country Rd
OPERATOR CITY:	Orange
OPERATOR STATE:	California
OPERATOR ZIP:	92868
OPERATOR CONTACT NAME:	Karina Hankins
OPERATOR CONTACT TITLE:	Env Health and Safety Specialist
OPERATOR CONTACT PHONE:	714-560-4887
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	hankinsk@kindermorgan.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESCRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Y

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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

RECEIVING WATER NAME: Murphy Canyon Creek
CERTIFIER NAME: Robert Granado
CERTIFIER TITLE: Director EHS
CERTIFICATION DATE: 31-MAR-15
PRIMARY SIC: 4226-Special Warehousing and Storage, NEC
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

SLIC:

Region: STATE
Facility Status: **Open - Remediation**
Status Date: 05/14/2009
Global Id: SL607392800
Lead Agency: SAN DIEGO RWQCB (REGION 9)
Lead Agency Case Number: H21132-001
Latitude: 32.790821325
Longitude: -117.114435
Case Type: Cleanup Program Site
Case Worker: SM
Local Agency: Not reported
RB Case Number: 9UT542
File Location: Regional Board
Potential Media Affected: Other Groundwater (uses other than drinking water), Soil, Surface water, Under Investigation
Potential Contaminants of Concern: Diesel, MTBE / TBA / Other Fuel Oxygenates, Gasoline, * Petroleum - Automotive gasolines, * Petroleum - Diesel fuels
Site History: On January 17,2007 gasoline was released onto soil due to a failed pump seal. Groundwater monitoring wells were installed on July 20, 2007. Volatile fuel hydrocarbons concentration in wellhead samples have declined in all wells since the beginning of initial mobile treatment system (MTS) activities. For more information see Additional Remediation Report for Tank MV-18 Transfer Pump Release dated May 13, 2008 under the Site Documents tab.

[Click here to access the California GeoTracker records for this facility:](#)

CHMIRS:

OES Incident Number: 05-5459
OES notification: 09/20/2005
OES Date: Not reported
OES Time: Not reported
Incident Date: Not reported
Date Completed: **Not reported**
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported

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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	Kinder Morgan
Incident Date:	9/20/200512:00:00 AM
Admin Agency:	San Diego County Health Services Dept.
Amount:	Not reported
Contained:	Yes
Site Type:	Other
E Date:	Not reported
Substance:	Remediation Water and Carbon From a Carbon Vessel
Gallons:	0.000000
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Substance was released when the truck was overfilled. Carbon substance released into a pattern of about 8Ft X 8Ft.
OES Incident Number:	11-3540
OES notification:	06/13/2011
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported

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Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agency Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Other
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1615
Year:	2011
Agency:	San Diego Gas and Electric
Incident Date:	6/13/2011
Admin Agency:	San Diego County Health Services Department
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Mineral Oil
Quantity Released:	2
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported

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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Fatals:	Not reported
Comments:	Not reported
Description:	The caller is reporting a small leak in a transformer.
OES Incident Number:	'10-2288
OES notification:	04/10/2010
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agency Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Other
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1743
Year:	2010
Agency:	Kinder Morgan
Incident Date:	4/10/2010
Admin Agency:	San Diego County Health Services Department
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Ground water with possible hydrocarbons
Quantity Released:	40
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported

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Site

Database(s)

EDR ID Number
 EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	A conveyance line apparently ruptured causing the product to spill into the soil. Clean up is underway.
OES Incident Number:	'10-2274
OES notification:	04/09/2010
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agency Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Other
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1620
Year:	2010

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Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Agency: Kinder Morgan
Incident Date: 4/9/2010
Admin Agency: San Diego County Health Services Department
Amount: Not reported
Contained: Yes
Site Type: Not reported
E Date: Not reported
Substance: Ground Water
Quantity Released: 40
Unknown: Not reported
Substance #2: Not reported
Substance #3: Not reported
Evacuations: Not reported
Number of Injuries: Not reported
Number of Fatalities: Not reported
#1 Pipeline: Not reported
#2 Pipeline: Not reported
#3 Pipeline: Not reported
#1 Vessel >= 300 Tons: Not reported
#2 Vessel >= 300 Tons: Not reported
#3 Vessel >= 300 Tons: Not reported
Evacs: Not reported
Injuries: Not reported
Fatals: Not reported
Comments: Not reported
Description: Conveyance piping malfunctioned, at a fuel terminal.

ENF:

Region: 9
Facility Id: 240986
Agency Name: Not reported
Place Type: Service/Commercial
Place Subtype: Service/Commercial Site, NEC
Facility Type: All other facilities
Agency Type: Not reported
Of Agencies: Not reported
Place Latitude: 32.786408
Place Longitude: -117.115189
SIC Code 1: 5171
SIC Desc 1: Petroleum Bulk Stations and Terminals
SIC Code 2: 5541
SIC Desc 2: Gasoline Service Stations
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported
NAICS Desc 1: Not reported
NAICS Code 2: Not reported
NAICS Desc 2: Not reported
NAICS Code 3: Not reported
NAICS Desc 3: Not reported
Of Places: 1
Source Of Facility: Enf Action
Design Flow: Not reported
Threat To Water Quality: Not reported
Complexity: Not reported
Pretreatment: Not reported
Facility Waste Type: Not reported

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MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	235286
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Notice of Violation
Effective Date:	08/14/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	08/14/2000
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000054N91
Description:	NOV 2000-157 for nonsubmittal of time schedule and technical report.
Program:	SLIC
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00

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MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	235095
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	07/17/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	2/26/2001
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000054N91
Description:	Milestone entered. Additional offsite delineation beyond the QualCom Stadium. MTBE has shown in deeper aquifer and not in near surface aquifer.
Program:	SLIC
Latest Milestone Completion Date:	2/26/2001
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1

Map ID
Direction
Distance
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	235094
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	06/05/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	6/21/2000
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000054N91
Description:	This is directed specifically to Texaco Mission Valley Terminal to investigate the integrity of the fuel lines from Kinder-Morgan manifold to Texaco Terminal, under Friars Road.
Program:	SLIC

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Latest Milestone Completion Date:	6/21/2000
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	235006
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	09/06/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	10/30/2000
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000054N91
Description:	Submit a report evaluating the condition of the pipeline cross-over and surrounding soil.
Program:	SLIC
Latest Milestone Completion Date:	10/30/2000
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	234221
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	04/17/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	6/14/2000
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
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MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Status:	Historical
Title:	Enforcement - 9 000054N91
Description:	Request for further delineation of MTBE along SD River and down Mission Valley.
Program:	SLIC
Latest Milestone Completion Date:	6/14/2000
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported

Map ID
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Database(s)

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EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	233241
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	08/27/1999
Adoption/Issuance Date:	Not reported
Achieve Date:	11/1/1999
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000054N91
Description:	Revised Corrective Action Plan for re-evaluation of of-site migration of release.
Program:	SLIC
Latest Milestone Completion Date:	11/1/1999
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171

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Database(s)

EDR ID Number
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MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	233207
Region:	9
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	13267 Letter
Effective Date:	08/27/1999

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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Adoption/Issuance Date:	Not reported
Achieve Date:	11/1/1999
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000054N91
Description:	The original CAP from early 1990's has become outdated and additional release(s) have compounded the problem. The
Program:	SLIC
Latest Milestone Completion Date:	11/1/1999
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported

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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	221311
Region:	9
Order / Resolution Number:	R9-1992-0001
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	01/03/1992
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000054N91
Description:	PETROLEUM RELEASE,RB LEAD, ASSOCIATES WITH ABOVEGROUND STORAGE TANKS/PIPING
Program:	SLIC
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities

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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported

Map ID
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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Enforcement Id(EID):	327187
Region:	9
Order / Resolution Number:	R9-2006-0159
Enforcement Action Type:	Notice of Violation
Effective Date:	12/05/2006
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	12/05/2006
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	NOV R9-2006-0159
Description:	Failure to report releases of hydrocarbon waste in accordance with 92-01-A5 Directive 11.
Program:	UST
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	256743
Agency Name:	Shell Oil Company - Anaheim
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
 EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Program:	AGT
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	9 000055N91
Reg Measure Id:	161473
Reg Measure Type:	Unregulated
Region:	9
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	221310
Region:	9
Order / Resolution Number:	92-001
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	01/03/1992
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000055N91
Description:	PETROLEUM RELEASE, RB LEAD, ASSOC W/ABOVEGROUND TANK/PIPING. SEE 9 000054N91 FOR ADDENDUM 1 INFO.
Program:	AGT
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9

Map ID
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Facility Id:	240987
Agency Name:	Powerine Petroleum
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	AGT
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	9 000057N91
Reg Measure Id:	160998
Reg Measure Type:	Unregulated
Region:	9
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported

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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	220963
Region:	9
Order / Resolution Number:	92-001
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	01/03/1992
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000057N91
Description:	PETROLEUM RELEASE, RB LEAD, ASSOC W/ABOVEGROUND TANK/PIPING. SEE 9 000054N91 FOR ADDENDUM 1 INFO.
Program:	AGT
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	241070
Agency Name:	Mobil Oil Corporation Burbank
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported

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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	AGT
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	9 000056N91
Reg Measure Id:	161008
Reg Measure Type:	Unregulated
Region:	9
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	221082
Region:	9
Order / Resolution Number:	92-001
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	01/03/1992
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000056N91
Description:	PETROLEUM RELEASE, RB LEAD, ASSOC W/ABOVEGROUND TANK/PIPING. SEE 9 000054N91 FOR ADDENDUM 1 INFO.
Program:	AGT
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00

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MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported

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MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	247537
Region:	9
Order / Resolution Number:	R9-1992-0001-A02
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	08/27/1999
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000054N91
Description:	Addendum No. 2 to CAO R9-1992-0001 adding additional RPs to Order and name changes.
Program:	SLIC
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported

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Database(s)

EDR ID Number
 EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	247507
Region:	9
Order / Resolution Number:	R9-1992-0001-A01
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	09/06/1994
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000054N91
Description:	Mission Valley Terminal CAO No. R9-1992-0001 addendum No. 1 to extend final cleanup date. Compliance by 01 January 1999.
	Not reported
Program:	SLIC

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MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported

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EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	239905
Region:	9
Order / Resolution Number:	R9-1992-0001-A4
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	03/20/2002
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 9 000054N91
Description:	Addendum issued to rescind 1/1/99 final cleanup date
Program:	SLIC
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported

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MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	239904
Region:	9
Order / Resolution Number:	R9-1992-0001-A3
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	02/19/2002
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical

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EDR ID Number
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MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Title:	Enforcement - 9 000054N91
Description:	Addendum to correct owners named
Program:	SLIC
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00
Region:	9
Facility Id:	240986
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Service/Commercial Site, NEC
Facility Type:	All other facilities
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	32.786408
Place Longitude:	-117.115189
SIC Code 1:	5171
SIC Desc 1:	Petroleum Bulk Stations and Terminals
SIC Code 2:	5541
SIC Desc 2:	Gasoline Service Stations
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported

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EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	239873
Region:	9
Order / Resolution Number:	R9-2002-0042
Enforcement Action Type:	Time Schedule Order
Effective Date:	03/13/2002
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Active
Title:	Enforcement - 9 000054N91
Description:	TSO issued because dischargers are out of compliance with directive No. 2 of CAO 92-01
Program:	SLIC
Latest Milestone Completion Date:	7/24/2002
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability \$ Amount:	0.00
Project \$ Amount:	0.00
Liability \$ Paid:	0.00
Project \$ Completed:	0.00
Total \$ Paid/Completed Amount:	0.00

HAZNET:

envid:	S108405207
Year:	2013
GEPaid:	CAC002724350
Contact:	LANCE MCDANIEL
Telephone:	6198142960
Mailing Name:	Not reported
Mailing Address:	10509 SAN DIEGO MISSION RD
Mailing City,St,Zip:	SAN DIEGO, CA 921082202
Gen County:	San Diego
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported

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MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery
(H010-H129) Or (H131-H135)
Tons: 1.5
Facility County: Not reported

envid: S108405207
Year: 2013
GEPAID: CAC002745347
Contact: RENEE NYGAARD
Telephone: 3102124190
Mailing Name: Not reported
Mailing Address: 12851 166TH ST
Mailing City,St,Zip: CERRITOS, CA 907032103
Gen County: San Diego
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.6255
Facility County: Not reported

ENVIROSTOR:

Facility ID: 71002597
Status: Inactive - Needs Evaluation
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Cypress
Assembly: 79
Senate: 39
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 32.78663
Longitude: -117.1162
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD080912587
Alias Type: EPA Identification Number
Alias Name: 110002334493
Alias Type: EPA (FRS #)
Alias Name: 71002597
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MISSION VALLEY BULK FUEL TERMINAL (Continued)

S108405207

Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

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

**C51
NE
< 1/8
0.019 mi.
100 ft.**

**9966 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108**

**EDR US Hist Auto Stat 1015690676
N/A**

Site 17 of 20 in cluster C

**Relative:
Higher**

EDR Historical Auto Stations:

Name: TEXACO REFINING & MARKETING INCORPORATED
Year: 1999
Address: 9966 SAN DIEGO MISSION RD

**Actual:
72 ft.**

Name: TEXACO REFINING & MARKETING INCORPORATED
Year: 2000
Address: 9966 SAN DIEGO MISSION RD

Name: TEXACO REFINING & MARKETING INC
Year: 2006
Address: 9966 SAN DIEGO MISSION RD

Name: TEXACO
Year: 2010
Address: 9966 SAN DIEGO MISSION RD

Name: TEXACO
Year: 2011
Address: 9966 SAN DIEGO MISSION RD

Name: TEXACO
Year: 2012
Address: 9966 SAN DIEGO MISSION RD

**C52
NE
< 1/8
0.019 mi.
100 ft.**

**EQUILON SAN DIEGO TERMINAL
9966 SAN DIEGO MISSION ROAD
SAN DIEGO, CA 92108**

**RCRA-SQG 1000144770
FINDS CAD000626127
LUST
SLIC
HIST UST**

Site 18 of 20 in cluster C

**Relative:
Higher**

RCRA-SQG:

Date form received by agency: 07/20/2010
Facility name: SHELL OIL PRODUCTS US SAN DIEGO TERMINAL
Facility address: 9966 SAN DIEGO MISSION RD

**Actual:
72 ft.**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EQUILON SAN DIEGO TERMINAL (Continued)

1000144770

SAN DIEGO, CA 92108
EPA ID: CAD000626127
Mailing address: PO BOX 2648
HOUSTON, TX 77252 2648
Contact: RAY WALDING
Contact address: PO BOX 2648
HOUSTON, TX 77252 2648
Contact country: US
Contact telephone: 713-241-7008
Contact email: RAY.WALDING@SHELL.COM
EPA Region: 09
Land type: Private
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: EQUILON ENTERPRISES LLC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 07/01/1998
Owner/Op end date: Not reported

Owner/operator name: EQUILON ENTERPRISES LLC
Owner/operator address: PO BOX 2648
HOUSTON, TX 77252
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 07/01/1998
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EQUILON SAN DIEGO TERMINAL (Continued)

1000144770

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

Historical Generators:

Date form received by agency: 03/19/2010

Site name: SHELL OIL PRODUCTS US SAN DIEGO TERMINAL

Classification: Not a generator, verified

Date form received by agency: 11/17/2009

Site name: SHELL OIL PRODUCTS US SAN DIEGO TERMINAL

Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

Date form received by agency: 02/18/2008

Site name: SHELL OIL PRODUCTS US - SAN DIEGO TERMINAL

Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

Date form received by agency: 01/30/2007

Site name: SHELL OIL PRODUCTS US SAN DIEGO TERMINAL

Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D009

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EQUILON SAN DIEGO TERMINAL (Continued)

1000144770

. Waste name: MERCURY

. Waste code: D018

. Waste name: BENZENE

Date form received by agency: 02/16/2006

Site name: SHELL OIL PRODUCTS US - SAN DIEGO TERMIN

Classification: Large Quantity Generator

. Waste code: 133

. Waste name: 133

. Waste code: 725

. Waste name: 725

. Waste code: D001

. Waste name: IGNITABLE WASTE

. Waste code: D009

. Waste name: MERCURY

. Waste code: D018

. Waste name: BENZENE

Date form received by agency: 02/19/2004

Site name: SHELL OIL PRODUCTS US-SAN DIEGO TERMINAL

Classification: Large Quantity Generator

. Waste code: D001

. Waste name: IGNITABLE WASTE

. Waste code: D008

. Waste name: LEAD

. Waste code: D010

. Waste name: SELENIUM

. Waste code: D018

. Waste name: BENZENE

Date form received by agency: 02/27/2002

Site name: EQUILON ENTERPRISES LLC (SAN DIEGO TER)

Classification: Large Quantity Generator

Date form received by agency: 03/04/1999

Site name: TEXACO SAN DIEGO SALES TERMINAL

Classification: Large Quantity Generator

Date form received by agency: 07/30/1998

Site name: EQUILON SAN DIEGO SALES TERMINAL

Classification: Large Quantity Generator

. Waste code: D001

. Waste name: IGNITABLE WASTE

. Waste code: D008

. Waste name: LEAD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EQUILON SAN DIEGO TERMINAL (Continued)

1000144770

. Waste code: D018
. Waste name: BENZENE

Date form received by agency: 09/01/1996
Site name: EQUILON SAN DIEGO SALES TERMINAL
Classification: Large Quantity Generator

Date form received by agency: 02/29/1996
Site name: TEXACO REFINING AND MARKETING, INC.
Classification: Large Quantity Generator

Date form received by agency: 04/11/1994
Site name: TEXACO REFINING AND MARKETING, INC
Classification: Large Quantity Generator

Date form received by agency: 02/28/1992
Site name: TEXACO REFINING AND MARKETING, INC. SAN
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 04/10/2006
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/10/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 04/10/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: Not reported
Evaluation lead agency: Local

Evaluation date: 04/09/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

FINDS:

Registry ID: 110000478778

Environmental Interest/Information System
FRP

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EQUILON SAN DIEGO TERMINAL (Continued)

1000144770

transported off-site.

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

LUST REG 9:

Region: 9
Status: Post remedial action monitoring
Case Number: 9UT542
Local Case: H04507-001
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: Pump and Treat Ground Water - generally employed to remove dissolved contaminants
Local Agency: San Diego
How Found: Tank Closure
How Stopped: New Tank
Source: Tank
Cause: Corrosion
Lead Agency: Local Agency
Case Type: Aquifer affected
Date Found: 07/01/1986
Date Stopped: 07/01/1986
Confirm Date: 07/01/1986
Submit Workplan: Not reported
Prelim Assess: 04/06/1987
Desc Pollution: Not reported
Remed Plan: 12/05/1988
Remed Action: 1/1/90
Began Monitor: 7/10/95
Release Date: 07/01/1986
Enforce Date: 7/2/86
Closed Date: Not reported
Enforce Type: SEL
Pilot Program: LOP
Basin Number: 907.11
GW Depth: Not reported
Beneficial Use: Municipal groundwater use
NPDES Number: Not reported
Priority: 2A
File Dispn: Not reported
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EQUILON SAN DIEGO TERMINAL (Continued)

1000144770

Waste Discharge Requirement Number: Not reported

SLIC:

Region: STATE
Facility Status: Completed - Case Closed
Status Date: 04/26/2001
Global Id: T0608182474
Lead Agency: SAN DIEGO COUNTY LOP
Lead Agency Case Number: H04507-002
Latitude: 32.787193
Longitude: -117.115924
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Not reported
Potential Contaminants of Concern: Not reported
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

HIST UST:

Region: STATE
Facility ID: 00000033190
Facility Type: Other
Other Type: TERMINAL
Contact Name: J.H. ELLIOTT
Telephone: 6192836191
Owner Name: TEXACO USA
Owner Address: P.O. BOX 3756 - 3550 WILSHIRE
Owner City,St,Zip: LOS ANGELES, CA 90010
Total Tanks: 0005

Tank Num: 001
Container Num: 1
Year Installed: 1974
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 3/16
Leak Detection: Stock Inventor, None

Tank Num: 002
Container Num: 63002
Year Installed: 1963
Tank Capacity: 00001000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: 10
Leak Detection: Stock Inventor, Pressure Test

Tank Num: 003
Container Num: 63001
Year Installed: 1963
Tank Capacity: 00001000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EQUILON SAN DIEGO TERMINAL (Continued)

1000144770

Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: 10
Leak Detection: Stock Inventor, Pressure Test

Tank Num: 004
Container Num: 63003
Year Installed: 1963
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: 3/16
Leak Detection: Stock Inventor, Pressure Test

Tank Num: 005
Container Num: 63004
Year Installed: 1968
Tank Capacity: 00004000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, None

**C53
NE
< 1/8
0.019 mi.
100 ft.**

**TEXACO INC. TERMINAL
9966 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108**

**HIST UST U001572773
N/A**

Site 19 of 20 in cluster C

**Relative:
Higher**

HIST UST:
Region: STATE
Facility ID: 00000035831
Facility Type: Other
Other Type: PETROLEUM
Contact Name: JOHN ELLIOTT
Telephone: 6192836191
Owner Name: EXXON CO. USA
Owner Address: 3410 E. SECOND ST.
Owner City,St,Zip: BENICIA, CA 94510
Total Tanks: 0001

**Actual:
72 ft.**

Tank Num: 001
Container Num: EXN-1
Year Installed: 1981
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: None

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

C54
NE
 < 1/8
 0.019 mi.
 100 ft.

TEXACO USA (TERMINAL)
9966 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108
Site 20 of 20 in cluster C

UST
SWEEPS UST
 San Diego Co. HMMD
 SAN DIEGO CO. SAM

U003789155
N/A

Relative:
Higher

UST:
 Facility ID: H04507
 Permitting Agency: SAN DIEGO COUNTY
 Latitude: 32.788556
 Longitude: -117.114489

Actual:
72 ft.

SWEEPS UST:

Status: Active
 Comp Number: 4507
 Number: 9
 Board Of Equalization: 44-000217
 Referral Date: Not reported
 Action Date: 06-26-92
 Created Date: 02-29-88
 Owner Tank Id: Not reported
 SWRCB Tank Id: 37-000-004507-000004
 Tank Status: A
 Capacity: 8000
 Active Date: Not reported
 Tank Use: M.V. FUEL
 STG: P
 Content: REG UNLEADED
 Number Of Tanks: 1

Status: Not reported
 Comp Number: 4507
 Number: Not reported
 Board Of Equalization: 44-000217
 Referral Date: Not reported
 Action Date: Not reported
 Created Date: Not reported
 Owner Tank Id: Not reported
 SWRCB Tank Id: 37-000-004507-000001
 Tank Status: Not reported
 Capacity: 8000
 Active Date: Not reported
 Tank Use: CHEMICAL
 STG: PRODUCT
 Content: Not reported
 Number Of Tanks: 4

Status: Not reported
 Comp Number: 4507
 Number: Not reported
 Board Of Equalization: 44-000217
 Referral Date: Not reported
 Action Date: Not reported
 Created Date: Not reported
 Owner Tank Id: Not reported
 SWRCB Tank Id: 37-000-004507-000002
 Tank Status: Not reported
 Capacity: 1000
 Active Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TEXACO USA (TERMINAL) (Continued)

U003789155

Tank Use: PETROLEUM
STG: WASTE
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 4507
Number: Not reported
Board Of Equalization: 44-000217
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004507-000003
Tank Status: Not reported
Capacity: 1000
Active Date: Not reported
Tank Use: UNKNOWN
STG: PRODUCT
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 4507
Number: Not reported
Board Of Equalization: 44-000217
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-004507-000005
Tank Status: Not reported
Capacity: 10000
Active Date: Not reported
Tank Use: CHEMICAL
STG: WASTE
Content: Not reported
Number Of Tanks: Not reported

SAN DIEGO CO. HMMD:

Facility Id: 104507
Business Type: 6HK78
EPA Id Number: CAD000626127
APN: 433-240-15-00
Last HMMD Inspection: 10/23/2009
Permit Status: INAC
Permit Expiration: 02/28/2011
Facility Owner: EQUILON ENTERPRISES
Facility Address: 9966 SAN DIEGO MISSION RD
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92108-
UST Owner: EQUILON ENTERPRISES
Handle Regulated Hazmat: Y
Own Or Operate UST: Y
Subject To APSA: Not reported
Generate Haz Waste: Y

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TEXACO USA (TERMINAL) (Continued)

U003789155

Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:

UST Name: UNDERGROUND TANK 104507 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: SINGLE WALL
Additional Id: 1
Capacity Gallons: 8000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1991-12-20 00:00:00
Year Installed: 1974-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104507 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: SINGLE WALL
Additional Id: 63002
Capacity Gallons: 1000
UST Contents: Not reported
Other Content Info: WASTE OIL
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104507 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: SINGLE WALL
Additional Id: 63001
Capacity Gallons: 1000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104507 T004
Last Update: 2012-11-02 14:17:38
Permit Number: 104507

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TEXACO USA (TERMINAL) (Continued)

U003789155

Tank Type: SINGLE WALL
Additional Id: 63003
Capacity Gallons: 1200
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: 1974-01-01 00:00:00
Pipe Type: Not reported
Delivery System: PRESSURE
Monitor Code: 05
UST Monitor Method: SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY
MONTHLY, TANK TEST BIENNIALY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR

UST Name: UNDERGROUND TANK 104507 T005
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: SINGLE WALL
Additional Id: 63004
Capacity Gallons: 10000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1991-12-20 00:00:00
Year Installed: 1982-01-01 00:00:00
Pipe Type: Not reported
Delivery System: PRESSURE
Monitor Code: 05
UST Monitor Method: SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY
MONTHLY, TANK TEST BIENNIALY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR

UST Name: UNDERGROUND TANK 104507 T006
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: UNKNOWN
Additional Id: NT1799
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1994-10-25 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING
ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104507 T007
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: UNKNOWN
Additional Id: NT1799
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TEXACO USA (TERMINAL) (Continued)

U003789155

Remove Close Date: 1994-10-25 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104507 T008
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: DOUBLE WALL
Additional Id: NT1799 / OIL BEARING MATERIAL / RT3688
Capacity Gallons: 10000
UST Contents: OTHER
Other Content Info: GASOLINE ADDITIVE & WATER
Reg Status: ACTIVE
Remove Close Date: Not reported
Year Installed: 1994-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: GRAVITY
Monitor Code: 21
UST Monitor Method: DW TANK DW SUCTION AND/ OR GRAVITY PIPING WITH INTERSTITIAL MONITORS: INTERSTITIAL

Violations Inactive Permits:

Facility Id: 104507
Update Date: 11/02/2012
Inspection Date: 04/10/2006
Violation Code: 6HV0227
Violation: HAZWASTE TANK/CONTAINER W/O LABEL/DATE
Violation Citation: Failed to properly label/date hazardous waste container &/or tank. 66262.34(f)
Activity: Inactive Permit

Facility Id: 104507
Update Date: 11/02/2012
Inspection Date: 04/10/2006
Violation Code: 6HV1603
Violation: NO 2ND CONTAINMENT FOR HW TANK
Violation Citation: Failed to provide proper secondary containment and/or leak detection for Hazardous waste tank system. 66265.193(a)
Activity: Inactive Permit

Facility Id: 104507
Update Date: 11/02/2012
Inspection Date: 04/10/2006
Violation Code: 6HV3254
Violation: UST SYSTEM W/O APPROVED OVERFILL PROTECT
Violation Citation: UST system does not have an approved overfill protection system. 2635(b)(2)
Activity: Inactive Permit

Facility Id: 104507
Business Type: 6HK78
EPA Id Number: CAD000626127

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TEXACO USA (TERMINAL) (Continued)

U003789155

APN: 433-240-15-00
Last HMMMD Inspection: 10/23/2009
Permit Status: INAC
Permit Expiration: 02/28/2011
Facility Owner: EQUILON ENTERPRISES
Facility Address: 9966 SAN DIEGO MISSION RD
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92108-
UST Owner: EQUILON ENTERPRISES
Handle Regulated Hazmat: Y
Own Or Operate UST: Y
Subject To APSA: Y
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:

UST Name: UNDERGROUND TANK 104507 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: SINGLE WALL
Additional Id: 1
Capacity Gallons: 8000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1991-12-20 00:00:00
Year Installed: 1974-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104507 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: SINGLE WALL
Additional Id: 63002
Capacity Gallons: 1000
UST Contents: Not reported
Other Content Info: WASTE OIL
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104507 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: SINGLE WALL
Additional Id: 63001
Capacity Gallons: 1000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TEXACO USA (TERMINAL) (Continued)

U003789155

UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104507 T004
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: SINGLE WALL
Additional Id: 63003
Capacity Gallons: 1200
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: REMOVED
Remove Close Date: 1986-11-08 00:00:00
Year Installed: 1974-01-01 00:00:00
Pipe Type: Not reported
Delivery System: PRESSURE
Monitor Code: 05
UST Monitor Method: SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR

UST Name: UNDERGROUND TANK 104507 T005
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: SINGLE WALL
Additional Id: 63004
Capacity Gallons: 10000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1991-12-20 00:00:00
Year Installed: 1982-01-01 00:00:00
Pipe Type: Not reported
Delivery System: PRESSURE
Monitor Code: 05
UST Monitor Method: SW TANK DW PIPE W/ POS SHUTOFF-ALARM ON LLD W/ SIRS:SIR ANALY MONTHLY, TANK TEST BIENNIALY, PIPE TEST ANN 0.1 G/HR OR MO 0.2 G/HR

UST Name: UNDERGROUND TANK 104507 T006
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: UNKNOWN
Additional Id: NT1799
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1994-10-25 00:00:00
Year Installed: Not reported
Pipe Type: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TEXACO USA (TERMINAL) (Continued)

U003789155

Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104507 T007
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: UNKNOWN
Additional Id: NT1799
Capacity Gallons: 12000
UST Contents: Not reported
Other Content Info: SEE FILE FOR CONTENTS
Reg Status: REMOVED
Remove Close Date: 1994-10-25 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

UST Name: UNDERGROUND TANK 104507 T008
Last Update: 2012-11-02 14:17:38
Permit Number: 104507
Tank Type: DOUBLE WALL
Additional Id: NT1799 / OIL BEARING MATERIAL / RT3688
Capacity Gallons: 10000
UST Contents: OTHER
Other Content Info: GASOLINE ADDITIVE & WATER
Reg Status: ACTIVE
Remove Close Date: Not reported
Year Installed: 1994-01-01 00:00:00
Pipe Type: DOUBLE WALL
Delivery System: GRAVITY
Monitor Code: 21
UST Monitor Method: DW TANK DW SUCTION AND/ OR GRAVITY PIPING WITH INTERSTITIAL MONITORS: INTERSTITIAL

Violations Inactive Permits:

Facility Id: 104507
Update Date: 11/02/2012
Inspection Date: 04/10/2006
Violation Code: 6HV0227
Violation: HAZWASTE TANK/CONTAINER W/O LABEL/DATE
Violation Citation: Failed to properly label/date hazardous waste container &/or tank. 66262.34(f)
Activity: Inactive Permit

Facility Id: 104507
Update Date: 11/02/2012
Inspection Date: 04/10/2006
Violation Code: 6HV1603
Violation: NO 2ND CONTAINMENT FOR HW TANK
Violation Citation: Failed to provide proper secondary containment and/or leak detection for Hazardous waste tank system. 66265.193(a)
Activity: Inactive Permit

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TEXACO USA (TERMINAL) (Continued)

U003789155

Facility Id: 104507
Update Date: 11/02/2012
Inspection Date: 04/10/2006
Violation Code: 6HV3254
Violation: UST SYSTEM W/O APPROVED OVERFILL PROTECT
Violation Citation: UST system does not have an approved overfill protection system.
2635(b)(2)
Activity: Inactive Permit

SAN DIEGO CO. SAM:

Case Number: H04507-002
Agency: DEH Site Assessment & Mitigation
Funding: Non Billable
Facility Type: Soils Only
Facility Status: Closed Case
Date: 4/26/2001
Date Began: 4/26/2001

Case Number: H04507-001
Agency: CA Regional Water Quality Control Board
Funding: LOP - State Fund
Facility Type: Drinking Water Aquifer Impacted
Facility Status: Remedial Investigation
Date: 1/1/1990
Date Began: 7/1/1986

55
North
< 1/8
0.019 mi.
101 ft.

RUSSELL TOM CHEVRON SERVICE
2222 MISSION VILLAGE DR
SAN DIEGO, CA

EDR US Hist Auto Stat 1008997148
N/A

Relative:
Higher

Actual:
80 ft.

EDR Historical Auto Stations:
Name: RUSSELL TOM CHEVRON SERVICE
Year: 1970
Type: GASOLINE STATIONS

56
NE
< 1/8
0.041 mi.
216 ft.

TEXACO USA SALES TERMINAL
9966 MISSION
SAN DEIGO, CA 92108

HIST CORTESE S105026110
N/A

Relative:
Higher

Actual:
73 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT542

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

D57
WSW
 < 1/8
 0.051 mi.
 270 ft.

HANGERS CLEANERS
2169 FENTON PKWY STE 104
SAN DIEGO, CA 92108

Site 1 of 2 in cluster D

DRYCLEANERS **S104890840**
 N/A

Relative:
Higher

DRYCLEANERS:
 EPA Id: CAL000222166
 NAICS Code: 81232
 NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
 SIC Code: 7211
 SIC Description: Power Laundries, Family and Commercial
 Create Date: 06/07/2001
 Facility Active: No
 Inactive Date: 06/30/2008
 Facility Addr2: Not reported
 Owner Name: FAIRLANE CLENERS INC
 Owner Address: 2169 FENTON PKWY STE 104
 Owner Address 2: Not reported
 Owner Telephone: 6195638200
 Contact Name: ALEXANDER SHAW-PRESIDENT
 Contact Address: 2169 FENTON PKWY STE 104
 Contact Address 2: Not reported
 Contact Telephone: 6195638200
 Mailing Name: Not reported
 Mailing Address 1: 2169 FENTON PKWY STE 104
 Mailing Address 2: Not reported
 Mailing City: SAN DIEGO
 Mailing State: CA
 Mailing Zip: 921084735
 Owner Fax: Not reported
 Region Code: Not reported

Actual:
68 ft.

D58
WSW
 < 1/8
 0.073 mi.
 383 ft.

2169 FENTON PKWY
SAN DIEGO, CA 92108

Site 2 of 2 in cluster D

EDR US Hist Cleaners **1015019222**
 N/A

Relative:
Higher

EDR Historical Cleaners:

Name: HANGERS CLEANERS
 Year: 2003
 Address: 2169 FENTON PKWY

Name: HANGERS CLEANERS
 Year: 2005
 Address: 2169 FENTON PKWY

Name: HANGERS CLEANERS
 Year: 2006
 Address: 2169 FENTON PKWY

Name: HANGERS CLEANERS
 Year: 2007
 Address: 2169 FENTON PKWY

Name: HANGERS CLEANERS
 Year: 2008
 Address: 2169 FENTON PKWY

Actual:
76 ft.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

(Continued)

1015019222

Name: HANGERS CLEANERS
 Year: 2010
 Address: 2169 FENTON PKWY

Name: HANGERS CLEANERS
 Year: 2011
 Address: 2169 FENTON PKWY

Name: HANGERS CLEANERS
 Year: 2012
 Address: 2169 FENTON PKWY

E59
West
< 1/8
0.097 mi.
514 ft.

2365 NORTHSIDE DR
SAN DIEGO, CA 92108

EDR US Hist Auto Stat 1015351028
N/A

Site 1 of 2 in cluster E

Relative:
Higher

EDR Historical Auto Stations:

Name: AAA AUTOMOBILE CLUB OF SOUTHERN CA
 Year: 2005
 Address: 2365 NORTHSIDE DR

Name: AAA AUTOMOBILE CLUB OF SOUTHERN CA
 Year: 2008
 Address: 2365 NORTHSIDE DR

Name: AAA AUTOMOBILE CLUB OF SOUTHERN CA
 Year: 2009
 Address: 2365 NORTHSIDE DR

Name: AAA AUTO CLUB
 Year: 2010
 Address: 2365 NORTHSIDE DR

Actual:
65 ft.

E60
West
< 1/8
0.097 mi.
514 ft.

THERMAL TREATMENT FACILITY
2365 NORTHSIDE DR, BOX 10
SAN DIEGO, CA 92108

LDS S104156588
WMUDS/SWAT N/A

Site 2 of 2 in cluster E

Relative:
Higher

LDS:

Global Id: L10001749414
 Latitude: 32.78310
 Longitude: -117.1265
 Case Type: Land Disposal Site
 Status: Completed - Case Closed
 Status Date: 03/17/2005
 Lead Agency: SAN DIEGO RWQCB (REGION 9)
 Caseworker: Not reported
 Local Agency: Not reported
 RB Case Number: 9 000000615
 LOC Case Number: Not reported
 File Location: Not reported
 Potential Media Affect: Not reported

Actual:
65 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

THERMAL TREATMENT FACILITY (Continued)

S104156588

EDR Link ID: L10001749414
Potential Contaminants of Concern: Not reported
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

WMUDS/SWAT:

Edit Date: Not reported
Complexity: Not reported
Primary Waste: CNSOIL
Primary Waste Type: Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Base Meridian: Not reported
NPID: Not reported
Tonnage: 0
Regional Board ID: Not reported
Municipal Solid Waste: False
Superorder: False
Open To Public: False
Waste List: False
Agency Type: Private
Agency Name: SHEWEY ENVIRONMENTAL MGMT
Agency Department: Not reported
Agency Address: 9301 FRIARS RD
Agency City,St,Zip: SAN DIEGO CA 92108
Agency Contact: CHARLIE SHEWEY
Agency Telephone: 6195845440
Land Owner Name: Not reported
Land Owner Address: Not reported
Land Owner City,St,Zip: Not reported
Land Owner Contact: Not reported
Land Owner Phone: Not reported
Region: 9
Facility Type: Solid Waste Site-Class II - A solid waste facility at which designated wastes may be treated or stored.
Facility Description: Not reported
Facility Telephone: Not reported
SWAT Facility Name: Not reported
Primary SIC: 9511
Secondary SIC: Not reported
Comments: Not reported
Last Facility Editors: Not reported
Waste Discharge System: True
Solid Waste Assessment Test Program: False
Toxic Pits Cleanup Act Program: False
Resource Conservation Recovery Act: False
Department of Defence: False
Solid Waste Assessment Test Program: Not reported
Threat to Water Quality: Not reported
Sub Chapter 15: True
Regional Board Project Officer: KDN
Number of WMUDS at Facility: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

THERMAL TREATMENT FACILITY (Continued)

S104156588

Section Range: Not reported
RCRA Facility: No
Waste Discharge Requirements: H
Self-Monitoring Rept. Frequency: Quarterly Submittal
Waste Discharge System ID: 9 000000615
Solid Waste Information ID: Not reported

61
SSW
1/8-1/4
0.142 mi.
752 ft.

3444 CAMINO DEL RIO N
SAN DIEGO, CA 92108

EDR US Hist Auto Stat

1015439424

N/A

Relative:
Higher

EDR Historical Auto Stations:

Name: RUBENS PAINT & BODY WORKS I
Year: 2008

Actual:
64 ft.

Address: 3444 CAMINO DEL RIO N

Name: RUBENS PAINT & BODY WORKS I
Year: 2009
Address: 3444 CAMINO DEL RIO N

62
West
1/8-1/4
0.191 mi.
1006 ft.

2520 NORTHSIDE DR
SAN DIEGO, CA 92108

EDR US Hist Auto Stat

1015365689

N/A

Relative:
Higher

EDR Historical Auto Stations:

Name: GREENS AUTOMOTIVE SERVICES
Year: 2005

Actual:
174 ft.

Address: 2520 NORTHSIDE DR

63
SSE
1/8-1/4
0.197 mi.
1039 ft.

3545 CAMINO DEL RIO S
SAN DIEGO, CA 92108

EDR US Hist Auto Stat

1015445581

N/A

Relative:
Higher

EDR Historical Auto Stations:

Name: A & S COLLISION REPAIR INC
Year: 2001

Actual:
94 ft.

Address: 3545 CAMINO DEL RIO S

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

64
ENE
1/8-1/4
0.199 mi.
1049 ft.

SIERRA SPRINGS
10306 SAN DIEGO MISSION RD
SAN DIEGO, CA 92108

SWEEPS UST
San Diego Co. HMMD

S104745133
N/A

Relative:
Higher

SWEEPS UST:

Status: Active
 Comp Number: 844
 Number: 9
 Board Of Equalization: 44-021584
 Referral Date: Not reported
 Action Date: 06-26-92
 Created Date: 02-29-88
 Owner Tank Id: Not reported
 SWRCB Tank Id: Not reported
 Tank Status: Not reported
 Capacity: Not reported
 Active Date: Not reported
 Tank Use: Not reported
 STG: Not reported
 Content: Not reported
 Number Of Tanks: Not reported

Actual:
99 ft.

Status: Not reported
 Comp Number: 844
 Number: Not reported
 Board Of Equalization: 44-021584
 Referral Date: Not reported
 Action Date: Not reported
 Created Date: Not reported
 Owner Tank Id: Not reported
 SWRCB Tank Id: 37-000-000844-000001
 Tank Status: Not reported
 Capacity: 5000
 Active Date: Not reported
 Tank Use: M.V. FUEL
 STG: WASTE
 Content: LEADED
 Number Of Tanks: 1

SAN DIEGO CO. HMMD:

Facility Id: 100844
 Business Type: 6HK70
 EPA Id Number: CAL000091785
 APN: 434-031-03-00
 Last HMMD Inspection: 12/02/2003
 Permit Status: INAC
 Permit Expiration: 03/31/2005
 Facility Owner: HINCKLEY & SCHMITT, INC
 Facility Address: 10306 SAN DIEGO MISSION RD
 Facility City: SAN DIEGO
 Facility State: CA
 Facility Zip: 92108-2103
 UST Owner: SILVER SPRINGS WATER CO
 Handle Regulated Hazmat: Y
 Own Or Operate UST: Not reported
 Subject To APSA: Not reported
 Generate Haz Waste: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SIERRA SPRINGS (Continued)

S104745133

Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

UST:

UST Name: UNDERGROUND TANK 100844 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 100844
Tank Type: SINGLE WALL
Additional Id: 1
Capacity Gallons: 5000
UST Contents: PREMIUM UNLEADED
Other Content Info: PREMIUM UNLEADED
Reg Status: REMOVED
Remove Close Date: 1987-01-12 00:00:00
Year Installed: Not reported
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 90
UST Monitor Method: NO MONITORING ALTERNATIVE SELECTED. VERIFY AND ENTER MONITORING ALTERNATIVE DURING INSPECTION.

Facility Id: 208942
Business Type: 6HK75
EPA Id Number: Not reported
APN: 434-031-03-00
Last HMMD Inspection: 09/14/2010
Permit Status: INAC
Permit Expiration: 01/31/2012
Facility Owner: THE FIREHOUSE BREWING COMPANY
Facility Address: 10306 SAN DIEGO MISSION RD
Facility City: SAN DIEGO
Facility State: CA
Facility Zip: 92108
UST Owner: Not reported
Handle Regulated Hazmat: Y
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Not reported
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

Violations Inactive Permits:

Facility Id: 208942
Update Date: 11/02/2012
Inspection Date: 09/14/2010
Violation Code: 6HV1013
Violation: HMBP NOT AVAILABLE FOR REVIEW
Violation Citation: Copy of HMBP not onsite for inspector's review. 25505(e)
Activity: Inactive Permit

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

F65
South
1/8-1/4
0.203 mi.
1072 ft.

**3435 CAMINO DEL RIO S
SAN DIEGO, CA 92108**

**EDR US Hist Auto Stat 1015438976
N/A**

Site 1 of 2 in cluster F

**Relative:
Higher**

EDR Historical Auto Stations:

Name: RENEE GOODRICH MFCC
Year: 2001
Address: 3435 CAMINO DEL RIO S

**Actual:
94 ft.**

Name: LIKE NU AUTO BODY
Year: 2006
Address: 3435 CAMINO DEL RIO S

F66
South
1/8-1/4
0.203 mi.
1072 ft.

**3435 CAMINO DEL RIO S
SAN DIEGO, CA 92108**

**EDR US Hist Cleaners 1015046889
N/A**

Site 2 of 2 in cluster F

**Relative:
Higher**

EDR Historical Cleaners:

Name: PRO CLEANING SVC LLC
Year: 2010
Address: 3435 CAMINO DEL RIO S

**Actual:
94 ft.**

Name: PRO CLEANING SERVICES
Year: 2011
Address: 3435 CAMINO DEL RIO S

Name: PRO CLEANING SERVICES
Year: 2012
Address: 3435 CAMINO DEL RIO S

G67
West
1/8-1/4
0.216 mi.
1143 ft.

**COSTCO WHOLESALE NO 488
2345 N MISSION CITY PKWY
SAN DIEGO, CA 92108**

**RCRA NonGen / NLR 1001959782
FINDS CAR000064188**

Site 1 of 2 in cluster G

**Relative:
Higher**

RCRA NonGen / NLR:

Date form received by agency: 06/18/2001
Facility name: COSTCO WHOLESALE NO 488
Facility address: 2345 N MISSION CITY PKWY
SAN DIEGO, CA 92108

**Actual:
68 ft.**

EPA ID: CAR000064188
Mailing address: 999 LAKE DR
LICENSING
ISSAQUAH, WA 98027

Contact: LISA SIMPSON
Contact address: 999 LAKE DR LICENSING
ISSAQUAH, WA 98027

Contact country: US
Contact telephone: (425) 313-6275
Contact email: Not reported

EPA Region: 09
Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COSTCO WHOLESALE NO 488 (Continued)

1001959782

Owner/Operator Summary:

Owner/operator name: COSTCO WHOLESALE CORP
Owner/operator address: 999 LAKE DR
ISSAQUAH, WA 98027
Owner/operator country: Not reported
Owner/operator telephone: (425) 313-8100
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D011
. Waste name: SILVER

Violation Status: No violations found

FINDS:

Registry ID: 110002931864

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

G68
West
1/8-1/4
0.216 mi.
1143 ft.

COSTCO WHOLESALE #488
2345 FENTON PKWY
SAN DIEGO, CA 92108

RCRA-LQG **1004676770**
FINDS **CAR000089284**

Site 2 of 2 in cluster G

Relative:
Higher

RCRA-LQG:

Date form received by agency: 07/11/2014

Facility name: COSTCO WHOLESALE #488
Site name: COSTCO WHOLESALE NO 488
Facility address: 2345 FENTON PKWY
SAN DIEGO, CA 92108

EPA ID: CAR000089284
Mailing address: 3207 GREY HAWK CT
STE 200

CARLSBAD, CA 92010
Contact: ELIZABETH CAMPOS
Contact address: 3207 GREY HAWK CT STE 200
CARLSBAD, CA 92010

Contact country: US
Contact telephone: 760-602-8709
Contact email: ECAMPOS@3ECOMPANY.COM
EPA Region: 09

Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: COSTCO WHOLESALE CORP
Owner/operator address: 999 LAKE DR
ISSAQUAH, 98027

Owner/operator country: US
Owner/operator telephone: 425-313-8100
Legal status: Private

Owner/Operator Type: Owner
Owner/Op start date: 06/29/2000
Owner/Op end date: Not reported

Owner/operator name: COSTCO WHOLESALE CORP
Owner/operator address: Not reported
Not reported

Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private

Owner/Operator Type: Operator
Owner/Op start date: 06/29/2000
Owner/Op end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COSTCO WHOLESALE #488 (Continued)

1004676770

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 122
. Waste name: 122

. Waste code: 131
. Waste name: 131

. Waste code: 133
. Waste name: 133

. Waste code: 134
. Waste name: 134

. Waste code: 135
. Waste name: 135

. Waste code: 141
. Waste name: 141

. Waste code: 151
. Waste name: 151

. Waste code: 172
. Waste name: 172

. Waste code: 181
. Waste name: 181

. Waste code: 211
. Waste name: 211

. Waste code: 212
. Waste name: 212

. Waste code: 213
. Waste name: 213

. Waste code: 214
. Waste name: 214

. Waste code: 221

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COSTCO WHOLESALE #488 (Continued)

1004676770

- . Waste name: 221
- . Waste code: 223
- . Waste name: 223
- . Waste code: 232
- . Waste name: 232
- . Waste code: 271
- . Waste name: 271
- . Waste code: 272
- . Waste name: 272
- . Waste code: 281
- . Waste name: 281
- . Waste code: 291
- . Waste name: 291
- . Waste code: 311
- . Waste name: 311
- . Waste code: 331
- . Waste name: 331
- . Waste code: 343
- . Waste name: 343
- . Waste code: 352
- . Waste name: 352
- . Waste code: 541
- . Waste name: 541
- . Waste code: 561
- . Waste name: 561
- . Waste code: 611
- . Waste name: 611
- . Waste code: 791
- . Waste name: 791
- . Waste code: D001
- . Waste name: IGNITABLE WASTE
- . Waste code: D002
- . Waste name: CORROSIVE WASTE
- . Waste code: D003
- . Waste name: REACTIVE WASTE
- . Waste code: D006
- . Waste name: CADMIUM
- . Waste code: D007

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COSTCO WHOLESALE #488 (Continued)

1004676770

- . Waste code: D008
- . Waste name: CHROMIUM
- . Waste code: D009
- . Waste name: LEAD
- . Waste code: D009
- . Waste name: MERCURY
- . Waste code: D010
- . Waste name: SELENIUM
- . Waste code: D011
- . Waste name: SILVER
- . Waste code: D018
- . Waste name: BENZENE
- . Waste code: D024
- . Waste name: M-CRESOL
- . Waste code: D026
- . Waste name: CRESOL
- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE
- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
- . Waste code: P001
- . Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%
- . Waste code: P075
- . Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS
- . Waste code: U034
- . Waste name: ACETALDEHYDE, TRICHLORO- (OR) CHLORAL

Historical Generators:

Date form received by agency: 03/01/2014
Site name: COSTCO WHOLESALE #488
Classification: Large Quantity Generator

- . Waste code: 122
- . Waste name: 122

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COSTCO WHOLESALE #488 (Continued)

1004676770

- . Waste code: 131
- . Waste name: 131

- . Waste code: 133
- . Waste name: 133

- . Waste code: 134
- . Waste name: 134

- . Waste code: 135
- . Waste name: 135

- . Waste code: 141
- . Waste name: 141

- . Waste code: 151
- . Waste name: 151

- . Waste code: 172
- . Waste name: 172

- . Waste code: 181
- . Waste name: 181

- . Waste code: 211
- . Waste name: 211

- . Waste code: 212
- . Waste name: 212

- . Waste code: 213
- . Waste name: 213

- . Waste code: 214
- . Waste name: 214

- . Waste code: 221
- . Waste name: 221

- . Waste code: 223
- . Waste name: 223

- . Waste code: 232
- . Waste name: 232

- . Waste code: 271
- . Waste name: 271

- . Waste code: 272
- . Waste name: 272

- . Waste code: 281
- . Waste name: 281

- . Waste code: 291
- . Waste name: 291

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COSTCO WHOLESALE #488 (Continued)

1004676770

- . Waste code: 311
- . Waste name: 311

- . Waste code: 331
- . Waste name: 331

- . Waste code: 343
- . Waste name: 343

- . Waste code: 352
- . Waste name: 352

- . Waste code: 561
- . Waste name: 561

- . Waste code: 611
- . Waste name: 611

- . Waste code: 791
- . Waste name: 791

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D002
- . Waste name: CORROSIVE WASTE

- . Waste code: D007
- . Waste name: CHROMIUM

- . Waste code: D008
- . Waste name: LEAD

- . Waste code: D009
- . Waste name: MERCURY

- . Waste code: D010
- . Waste name: SELENIUM

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D018
- . Waste name: BENZENE

- . Waste code: D024
- . Waste name: M-CRESOL

- . Waste code: D026
- . Waste name: CRESOL

- . Waste code: D028
- . Waste name: 1,2-DICHLOROETHANE

- . Waste code: D029
- . Waste name: 1,1-DICHLOROETHYLENE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COSTCO WHOLESALE #488 (Continued)

1004676770

- . Waste code: D035
- . Waste name: METHYL ETHYL KETONE

- . Waste code: D039
- . Waste name: TETRACHLOROETHYLENE

- . Waste code: D040
- . Waste name: TRICHLORETHYLENE

- . Waste code: D043
- . Waste name: VINYL CHLORIDE

- . Waste code: F002
- . Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2, TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F003
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: F005
- . Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

- . Waste code: P001
- . Waste name: 2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%

- . Waste code: P075
- . Waste name: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

- . Waste code: U019
- . Waste name: BENZENE (I,T)

- . Waste code: U034

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

COSTCO WHOLESALE #488 (Continued)

1004676770

- . Waste name: ACETALDEHYDE, TRICHLORO- (OR) CHLORAL
- . Waste code: U037
- . Waste name: BENZENE, CHLORO- (OR) CHLOROBENZENE
- . Waste code: U228
- . Waste name: ETHENE, TRICHLORO- (OR) TRICHLOROETHYLENE

- Date form received by agency: 07/09/2002
- Site name: COSTCO WHOLESALE NO 488
- Classification: Small Quantity Generator

- . Waste code: D001
- . Waste name: IGNITABLE WASTE

- . Waste code: D011
- . Waste name: SILVER

- . Waste code: D018
- . Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110057046897

Environmental Interest/Information System
STATE MASTER

HAZARDOUS WASTE BIENNIAL REPORTER

69
SW
1/8-1/4
0.222 mi.
1174 ft.

CENTERSIDE ONE
3111 CAMINO DEL RIO N 603
SAN DIEGO, CA 92108

SWEEPS UST S106924148
N/A

Relative:
Lower

Actual:
58 ft.

SWEEPS UST:
Status: Active
Comp Number: 29774
Number: 9
Board Of Equalization: 44-023806
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-029774-000001
Tank Status: A
Capacity: 575
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: OTHER
Number Of Tanks: 1

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

70
SE
1/8-1/4
0.225 mi.
1187 ft.

CALIFORNIA HIGHWAY PATROL
3703 CAMINO DEL RIO S
SAN DIEGO, CA 92120

HIST UST **U001573121**
N/A

Relative:
Higher

HIST UST:
Region: STATE
Facility ID: 00000035433
Facility Type: Other
Other Type: CHP
Contact Name: Not reported
Telephone: 9163225310
Owner Name: CALIFORNIA HIGHWAY PATROL
Owner Address: P.O. BOX 898
Owner City,St,Zip: SACRAMENTO, CA 95804
Total Tanks: 0001

Tank Num: 001
Container Num: 601-1
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: None

71
SSW
1/8-1/4
0.227 mi.
1197 ft.

3333 CAMINO DEL RIO S
SAN DIEGO, CA 92108

EDR US Hist Auto Stat **1015432803**
N/A

Relative:
Higher

EDR Historical Auto Stations:
Name: DONS AUTOMOTIVE INC
Year: 2002
Address: 3333 CAMINO DEL RIO S

72
East
1/8-1/4
0.233 mi.
1230 ft.

5942 RANCHO MISSION RD
SAN DIEGO, CA 92108

EDR US Hist Cleaners **1015078290**
N/A

Relative:
Higher

EDR Historical Cleaners:
Name: IMMACULATE CLEANING SERVICE
Year: 2003
Address: 5942 RANCHO MISSION RD

Actual:
74 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

73
ENE
1/8-1/4
0.244 mi.
1290 ft.

MICHAEL S CLEANERS
10439 SAN DIEGO MISSION RD
SAN DIEGO, CA

EDR US Hist Cleaners 1009128261
N/A

Relative:
Higher
Actual:
82 ft.

EDR Historical Cleaners:
Name: MICHAEL S CLEANERS
Year: 1980
Type: CLEANERS AND DYERS

74
ESE
1/4-1/2
0.453 mi.
2393 ft.

NATIONAL UNIVERSITY/V.A.P.
4007 CAMINO DEL RIO S
SAN DIEGO, CA 92108

SLIC S106065565
San Diego Co. HMMD N/A
SAN DIEGO CO. SAM

Relative:
Higher
Actual:
99 ft.

SLIC:
Region: STATE
Facility Status: Completed - Case Closed
Status Date: 08/12/1999
Global Id: T0608197377
Lead Agency: SAN DIEGO COUNTY LOP
Lead Agency Case Number: H38278-001
Latitude: 32.77747
Longitude: -117.108162
Case Type: Cleanup Program Site
Case Worker: NA
Local Agency: SAN DIEGO COUNTY LOP
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Soil
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

SAN DIEGO CO. HMMD:

Facility Id: 138278
Business Type: Not reported
EPA Id Number: Not reported
APN: 440-670-49-00
Last HMMD Inspection: Not reported
Permit Status: INAC
Permit Expiration: Not reported
Facility Owner: Not reported
Facility Address: Not reported
Facility City: Not reported
Facility State: Not reported
Facility Zip: Not reported
UST Owner: Not reported
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Not reported
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NATIONAL UNIVERSITY/V.A.P. (Continued)

S106065565

SAN DIEGO CO. SAM:

Case Number: H38278-001
Agency: DEH Site Assessment & Mitigation
Funding: Private - VAP
Facility Type: Soils Only
Facility Status: Closed Case
Date: 8/12/1999
Date Began: 2/8/1999

75
NNW
1/2-1
0.590 mi.
3113 ft.

ARCO #1761
2696 MISSION VILLAGE DR
SAN DIEGO, CA 92121

LUST **S100233002**
SWEEPS UST **N/A**
Notify 65
San Diego Co. HMMD
EMI
SAN DIEGO CO. SAM

Relative:
Higher

LUST REG 9:

Actual:
348 ft.

Region: 9
Status: Preliminary site assessment underway
Case Number: 9UT1043
Local Case: H12275-002
Substance: Gasoline
Qty Leaked: 0
Abate Method: Not reported
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Repair Tank
Source: Unknown
Cause: Corrosion
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 08/30/1988
Date Stopped: 08/30/1988
Confirm Date: 09/12/1988
Submit Workplan: Not reported
Prelim Assess: 02/12/1993
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 09/12/1988
Enforce Date: 9/12/88
Closed Date: Not reported
Enforce Type: SEL
Pilot Program: LOP
Basin Number: 908.22
GW Depth: > 8'
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: 2B
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

SWEEPS UST:

Status: Active

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ARCO #1761 (Continued)

S100233002

Comp Number: 12275
Number: 9
Board Of Equalization: 44-000506
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-012275-000001
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 4

Status: Active
Comp Number: 12275
Number: 9
Board Of Equalization: 44-000506
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-012275-000002
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 12275
Number: 9
Board Of Equalization: 44-000506
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-012275-000003
Tank Status: A
Capacity: 8000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 12275
Number: 9
Board Of Equalization: 44-000506
Referral Date: Not reported
Action Date: 06-26-92
Created Date: 02-29-88

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ARCO #1761 (Continued)

S100233002

Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-012275-000005
Tank Status: A
Capacity: 550
Active Date: Not reported
Tank Use: PETROLEUM
STG: W
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 12275
Number: Not reported
Board Of Equalization: 44-000506
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 37-000-012275-000004
Tank Status: Not reported
Capacity: 280
Active Date: Not reported
Tank Use: PETROLEUM
STG: PRODUCT
Content: Not reported
Number Of Tanks: 1

NOTIFY 65:

Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 92123-3635

SAN DIEGO CO. HMMD:

Facility Id: 112275
Business Type: 6HK29
EPA Id Number: CAD981166994
APN: 429-281-01-00
Last HMMD Inspection: 11/08/2000
Permit Status: INAC
Permit Expiration: 11/08/2000
Facility Owner: ARCO, ENV. COMPLIANCE DEPT.
Facility Address: PO BOX 6038
Facility City: ARTESIA
Facility State: CA
Facility Zip: 90702-6038
UST Owner: ARCO PETROLEUM PRODUCTS CO
Handle Regulated Hazmat: Not reported
Own Or Operate UST: Not reported
Subject To APSA: Not reported
Generate Haz Waste: Y
Treat Haz Waste: Not reported
Generate Medical Waste: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ARCO #1761 (Continued)

S100233002

UST:

UST Name: UNDERGROUND TANK 112275 T001
Last Update: 2012-11-02 14:17:38
Permit Number: 112275
Tank Type: SINGLE WALL
Additional Id: AT4644
Capacity Gallons: 10000
UST Contents: REGULAR UNLEADED
Other Content Info: REGULAR UNLEADED
Reg Status: REMOVED
Remove Close Date: 2001-01-02 00:00:00
Year Installed: 1979-01-01 00:00:00
Pipe Type: SINGLE WALL
Delivery System: PRESSURE
Monitor Code: 02
UST Monitor Method: SW TANK SW PRESSURE PIPE W/ RESTRICTIVE LLD W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALY, PIPE TEST ANNUALLY

UST Name: UNDERGROUND TANK 112275 T002
Last Update: 2012-11-02 14:17:38
Permit Number: 112275
Tank Type: SINGLE WALL
Additional Id: AT4644
Capacity Gallons: 10000
UST Contents: MIDGRADE UNLEADED
Other Content Info: MIDGRADE UNLEADED
Reg Status: REMOVED
Remove Close Date: 2001-01-02 00:00:00
Year Installed: 1979-01-01 00:00:00
Pipe Type: SINGLE WALL
Delivery System: PRESSURE
Monitor Code: 02
UST Monitor Method: SW TANK SW PRESSURE PIPE W/ RESTRICTIVE LLD W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALY, PIPE TEST ANNUALLY

UST Name: UNDERGROUND TANK 112275 T003
Last Update: 2012-11-02 14:17:38
Permit Number: 112275
Tank Type: SINGLE WALL
Additional Id: AT4644
Capacity Gallons: 8000
UST Contents: PREMIUM UNLEADED
Other Content Info: PREMIUM UNLEADED
Reg Status: REMOVED
Remove Close Date: 2001-01-02 00:00:00
Year Installed: 1979-01-01 00:00:00
Pipe Type: SINGLE WALL
Delivery System: PRESSURE
Monitor Code: 02
UST Monitor Method: SW TANK SW PRESSURE PIPE W/ RESTRICTIVE LLD W/ SIRS: SIR DATA ANALYSIS MONTHLY, TANK TEST BIENNIALY, PIPE TEST ANNUALLY

UST Name: UNDERGROUND TANK 112275 T004
Last Update: 2012-11-02 14:17:38
Permit Number: 112275
Tank Type: SINGLE WALL
Additional Id: 0000000004

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ARCO #1761 (Continued)

S100233002

Capacity Gallons: 280
UST Contents: Not reported
Other Content Info: WASTE OIL
Reg Status: REMOVED
Remove Close Date: 1988-01-01 00:00:00
Year Installed: 1963-01-01 00:00:00
Pipe Type: Not reported
Delivery System: GRAVITY
Monitor Code: 10
UST Monitor Method: SW TANK DW PRESSURE PIPE W/POS SHUTOFF LLD W/DAILY RECONCILE OR WEEKLY GAUGE: TNK TEST ANN, PIPE TEST ANN 0.1 GAL/HR OR MO 0.2 GAL/HR

UST Name: UNDERGROUND TANK 112275 T005
Last Update: 2012-11-02 14:17:38
Permit Number: 112275
Tank Type: DOUBLE WALL
Additional Id: AT4644
Capacity Gallons: 550
UST Contents: Not reported
Other Content Info: WASTE OIL
Reg Status: REMOVED
Remove Close Date: 2001-01-02 00:00:00
Year Installed: 1991-01-01 00:00:00
Pipe Type: Not reported
Delivery System: Not reported
Monitor Code: 21
UST Monitor Method: DW TANK DW SUCTION AND/ OR GRAVITY PIPING WITH INTERSTITIAL MONITORS: INTERSTITIAL.

EMI:

Year: 2000
County Code: 37
Air Basin: SD
Facility ID: 3789
Air District Name: SD
SIC Code: 5541
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2001
County Code: 37
Air Basin: SD
Facility ID: 3789
Air District Name: SD
SIC Code: 5541
Air District Name: SAN DIEGO COUNTY APCD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ARCO #1761 (Continued)

S100233002

Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

SAN DIEGO CO. SAM:

Case Number: H12275-001
Agency: DEH Site Assessment & Mitigation
Funding: Non Billable
Facility Type: Failed Integrity Test
Facility Status: Closed Case
Date: 2/25/1988
Date Began: 3/9/1987

Case Number: H12275-002
Agency: DEH Site Assessment & Mitigation
Funding: LOP - State Fund
Facility Type: GW With No Beneficial Use Designation
Facility Status: Closed Case
Date: 5/14/2008
Date Began: 9/12/1988

Case Number: H12275-003
Agency: DEH Site Assessment & Mitigation
Funding: Non Billable
Facility Type: Failed Integrity Test
Facility Status: Closed Case
Date: 9/8/1992
Date Began: 6/17/1992

Case Number: H12275-004
Agency: DEH Site Assessment & Mitigation
Funding: Private - VAP
Facility Type: GW With No Beneficial Use Designation
Facility Status: Remedial Investigation
Date: 6/30/1992
Date Began: 3/16/1992

Case Number: H12275-005
Agency: DEH Site Assessment & Mitigation
Funding: LOP - State Fund
Facility Type: GW With No Beneficial Use Designation
Facility Status: Remedial Investigation
Date: 2/1/2001
Date Began: 2/1/2001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

76
East
1/2-1
0.740 mi.
3908 ft.

ROSE TOYOTA
5926-27,5933,5957 FAIRMOUNT AVE.
SAN DIEGO, CA 92120

ENVIROSTOR **S106797725**
N/A

Relative:
Higher

ENVIROSTOR:
Facility ID: 37550008
Status: Refer: 1248 Local Agency
Status Date: 12/17/2001
Site Code: Not reported
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Cypress
Assembly: 79
Senate: 39
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not Applicable
Latitude: 32.78284
Longitude: -117.1027
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 37550008
Alias Type: Envirostor ID Number

Actual:
74 ft.

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

77
East
1/2-1
0.822 mi.
4341 ft.

USAR CNTR SAN DIEGO
SAN DIEGO, CA

ENVIROSTOR S107737506
N/A

Relative:
Higher

ENVIROSTOR:

Actual:
78 ft.

Facility ID: 80000490
Status: Inactive - Needs Evaluation
Status Date: 07/01/2005
Site Code: Not reported
Site Type: Military Evaluation
Site Type Detailed: FUDS
Acres: Not reported
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Douglas Bautista
Division Branch: Cleanup Cypress
Assembly: 79
Senate: 39
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: DERA
Latitude: 32.78361
Longitude: -117.1002
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CA99799F564300
Alias Type: Federal Facility ID
Alias Name: J09CA0656
Alias Type: INPR
Alias Name: 80000490
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

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

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

78
East
1/2-1
0.847 mi.
4472 ft.

TRULY NOLEN EXTERMINATING
5909 MISSION GORGE ROAD
SAN DIEGO, CA 92120

Toxic Pits **S100676374**
N/A

Relative:
Higher

TOXIC PITS:

Region: 09
Task #: 89008
Owner: TRULY NOLEN EXTERMINATING
1/2 Mi Limit: Y
Num. of Pits: 1
Cease Discharge Due: 06/30/88
Cease Discharge Complete: 06/30/88
Closure Due: 06/30/90
Closure Completed: 03/20/90
Status: CLOSED
Hydro Geological Assessment Report Due: / /
Final Hydro Geological Assessment Review Completed: 03/01/88

Actual:
76 ft.

79
East
1/2-1
0.988 mi.
5217 ft.

FORMER ARCO
6110 MISSION GORGE RD.
SAN DIEGO, CA 92120

HIST CORTESE **S100470911**
LUST **N/A**
SLIC
ENVIROSTOR

Relative:
Higher

HIST CORTESE:

Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT1872

Actual:
95 ft.

LUST:

Region: STATE
Global Id: T0607300655
Latitude: 32.785377
Longitude: -117.0979656
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/08/2005
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: 9UT1872
LOC Case Number: H05115-001
File Location: Local Agency
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

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

Status History:

Global Id: T0607300655
Status: Completed - Case Closed
Status Date: 09/08/2005

Global Id: T0607300655
Status: Open - Case Begin Date
Status Date: 10/01/1990

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ARCO (Continued)

S100470911

Regulatory Activities:

Global Id:	T0607300655
Action Type:	Other
Date:	10/02/1990
Action:	Leak Began
Global Id:	T0607300655
Action Type:	Other
Date:	10/02/1990
Action:	Leak Discovery
Global Id:	T0607300655
Action Type:	ENFORCEMENT
Date:	10/04/1990
Action:	Notice of Responsibility
Global Id:	T0607300655
Action Type:	Other
Date:	10/01/1990
Action:	Leak Reported

SLIC:

Region:	STATE
Facility Status:	Open - Site Assessment
Status Date:	02/08/2010
Global Id:	T10000001809
Lead Agency:	SAN DIEGO COUNTY LOP
Lead Agency Case Number:	H05115-002
Latitude:	32.785296
Longitude:	-117.098108
Case Type:	Cleanup Program Site
Case Worker:	KK
Local Agency:	SAN DIEGO COUNTY LOP
RB Case Number:	Not reported
File Location:	Local Agency
Potential Media Affected:	Other Groundwater (uses other than drinking water), Soil
Potential Contaminants of Concern:	Gasoline
Site History:	This is a former UST case (H05115-002) which was closed on September 6, 2005. The gasoline station has been demolished and the property owner wishes to redevelop the site. Redevelopment activities will be managed under this case. An updated site conceptual model is being prepared to evaluate the existing condition of the property.

[Click here to access the California GeoTracker records for this facility:](#)

ENVIROSTOR:

Facility ID:	60001297
Status:	Refer: 1248 Local Agency
Status Date:	01/13/2010
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0
NPL:	NO
Regulatory Agencies:	SAN DIEGO COUNTY

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FORMER ARCO (Continued)

S100470911

Lead Agency: SAN DIEGO COUNTY
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Cypress
Assembly: 78
Senate: Not reported
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not Applicable
Latitude: 0
Longitude: 0
APN: 461-220-30-00
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 461-220-30-00
Alias Type: APN
Alias Name: 60001297
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: SB 1248 Notification
Completed Date: 01/13/2010
Comments: An SB 1248 Notification received from the County of San Diego wants to be sure that the property is okay for the owner to develop or lease it for mixed residential/commercial use with a subterranean parking garage. The property owner is looking for reassurance that there are no restrictions on the future property uses, as proposed.

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

Count: 1 records.

ORPHAN SUMMARY

<u>City</u>	<u>EDR ID</u>	<u>Site Name</u>	<u>Site Address</u>	<u>Zip</u>	<u>Database(s)</u>
SAN DIEGO	S108430868	CAL-MAT MISSION VALLEY	2240 STADIUM WY	92108	SAN DIEGO CO. SAM

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/26/2015	Source: EPA
Date Data Arrived at EDR: 04/08/2015	Telephone: N/A
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 04/08/2015
Number of Days to Update: 75	Next Scheduled EDR Contact: 07/20/2015
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/26/2015	Source: EPA
Date Data Arrived at EDR: 04/08/2015	Telephone: N/A
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 04/08/2015
Number of Days to Update: 75	Next Scheduled EDR Contact: 07/20/2015
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/26/2015	Source: EPA
Date Data Arrived at EDR: 04/08/2015	Telephone: N/A
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 04/08/2015
Number of Days to Update: 75	Next Scheduled EDR Contact: 07/20/2015
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 05/29/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 09/07/2015
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/08/2015	Telephone: 703-603-8704
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 04/08/2015
Number of Days to Update: 64	Next Scheduled EDR Contact: 07/20/2015
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 05/29/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 09/07/2015
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

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

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

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

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

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

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/16/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/17/2015	Telephone: 703-603-0695
Date Made Active in Reports: 06/02/2015	Last EDR Contact: 06/01/2015
Number of Days to Update: 77	Next Scheduled EDR Contact: 09/14/2015
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/16/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/17/2015	Telephone: 703-603-0695
Date Made Active in Reports: 06/02/2015	Last EDR Contact: 06/01/2015
Number of Days to Update: 77	Next Scheduled EDR Contact: 09/14/2015
	Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015	Source: Department of the Navy
Date Data Arrived at EDR: 05/29/2015	Telephone: 843-820-7326
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 05/18/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 08/31/2015
	Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/30/2015	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 03/31/2015	Telephone: 202-267-2180
Date Made Active in Reports: 06/02/2015	Last EDR Contact: 03/31/2015
Number of Days to Update: 63	Next Scheduled EDR Contact: 07/13/2015
	Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

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

Date of Government Version: 05/04/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/05/2015	Telephone: 916-323-3400
Date Made Active in Reports: 05/14/2015	Last EDR Contact: 05/05/2015
Number of Days to Update: 9	Next Scheduled EDR Contact: 08/17/2015
	Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ENVIROSTOR: EnviroStor Database

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

Date of Government Version: 05/04/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/05/2015	Telephone: 916-323-3400
Date Made Active in Reports: 05/14/2015	Last EDR Contact: 05/05/2015
Number of Days to Update: 9	Next Scheduled EDR Contact: 08/17/2015
	Data Release Frequency: Quarterly

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

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/18/2015	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 05/20/2015	Telephone: 916-341-6320
Date Made Active in Reports: 06/05/2015	Last EDR Contact: 05/20/2015
Number of Days to Update: 16	Next Scheduled EDR Contact: 08/31/2015
	Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001	Source: California Regional Water Quality Control Board San Diego Region (9)
Date Data Arrived at EDR: 04/23/2001	Telephone: 858-637-5595
Date Made Active in Reports: 05/21/2001	Last EDR Contact: 09/26/2011
Number of Days to Update: 28	Next Scheduled EDR Contact: 01/09/2012
	Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005	Source: California Regional Water Quality Control Board Santa Ana Region (8)
Date Data Arrived at EDR: 02/15/2005	Telephone: 909-782-4496
Date Made Active in Reports: 03/28/2005	Last EDR Contact: 08/15/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: Varies

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005	Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Date Data Arrived at EDR: 06/07/2005	Telephone: 760-241-7365
Date Made Active in Reports: 06/29/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 24

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/03/2015
Date Data Arrived at EDR: 04/30/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 53

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/03/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/30/2014
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 03/17/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 52

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 48

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/08/2015	Telephone: 415-972-3372
Date Made Active in Reports: 02/09/2015	Last EDR Contact: 01/08/2015
Number of Days to Update: 32	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/03/2015	Source: EPA Region 10
Date Data Arrived at EDR: 02/12/2015	Telephone: 206-553-2857
Date Made Active in Reports: 03/13/2015	Last EDR Contact: 04/27/2015
Number of Days to Update: 29	Next Scheduled EDR Contact: 08/10/2015
	Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/13/2015	Source: SWRCB
Date Data Arrived at EDR: 03/18/2015	Telephone: 916-341-5851
Date Made Active in Reports: 03/26/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 8	Next Scheduled EDR Contact: 09/28/2015
	Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2009	Telephone: 916-327-5092
Date Made Active in Reports: 10/01/2009	Last EDR Contact: 06/22/2015
Number of Days to Update: 21	Next Scheduled EDR Contact: 10/12/2015
	Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/30/2015	Source: EPA Region 8
Date Data Arrived at EDR: 05/05/2015	Telephone: 303-312-6137
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 04/27/2015
Number of Days to Update: 48	Next Scheduled EDR Contact: 08/10/2015
	Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/03/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 04/30/2015	Telephone: 617-918-1313
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 04/28/2015
Number of Days to Update: 53	Next Scheduled EDR Contact: 08/10/2015
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/30/2014	Source: EPA Region 4
Date Data Arrived at EDR: 03/03/2015	Telephone: 404-562-9424
Date Made Active in Reports: 03/13/2015	Last EDR Contact: 04/27/2015
Number of Days to Update: 10	Next Scheduled EDR Contact: 08/10/2015
	Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/30/2015	Source: EPA Region 5
Date Data Arrived at EDR: 05/26/2015	Telephone: 312-886-6136
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 04/27/2015
Number of Days to Update: 27	Next Scheduled EDR Contact: 08/10/2015
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/06/2015	Source: EPA Region 10
Date Data Arrived at EDR: 05/19/2015	Telephone: 206-553-2857
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 04/27/2015
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/10/2015
	Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014	Source: EPA Region 9
Date Data Arrived at EDR: 02/13/2015	Telephone: 415-972-3368
Date Made Active in Reports: 03/13/2015	Last EDR Contact: 01/26/2015
Number of Days to Update: 28	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 04/27/2015
Number of Days to Update: 65	Next Scheduled EDR Contact: 08/10/2015
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 03/17/2015	Source: EPA Region 6
Date Data Arrived at EDR: 05/01/2015	Telephone: 214-665-7591
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 01/26/2015
Number of Days to Update: 52	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010	Source: FEMA
Date Data Arrived at EDR: 02/16/2010	Telephone: 202-646-5797
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 04/13/2015
Number of Days to Update: 55	Next Scheduled EDR Contact: 07/27/2015
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/04/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/05/2015	Telephone: 916-323-3400
Date Made Active in Reports: 05/14/2015	Last EDR Contact: 05/05/2015
Number of Days to Update: 9	Next Scheduled EDR Contact: 08/17/2015
	Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014	Source: EPA, Region 1
Date Data Arrived at EDR: 10/01/2014	Telephone: 617-918-1102
Date Made Active in Reports: 11/06/2014	Last EDR Contact: 04/02/2015
Number of Days to Update: 36	Next Scheduled EDR Contact: 07/13/2015
	Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/23/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/24/2015	Telephone: 202-566-2777
Date Made Active in Reports: 06/02/2015	Last EDR Contact: 03/24/2015
Number of Days to Update: 70	Next Scheduled EDR Contact: 07/06/2015
	Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/23/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/26/2015
Number of Days to Update: 8

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 8

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/01/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/25/2015	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 03/10/2015	Telephone: 202-307-1000
Date Made Active in Reports: 03/25/2015	Last EDR Contact: 05/29/2015
Number of Days to Update: 15	Next Scheduled EDR Contact: 09/14/2015
	Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 08/03/2006	Telephone: 916-323-3400
Date Made Active in Reports: 08/24/2006	Last EDR Contact: 02/23/2009
Number of Days to Update: 21	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/04/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/05/2015	Telephone: 916-323-3400
Date Made Active in Reports: 05/14/2015	Last EDR Contact: 05/05/2015
Number of Days to Update: 9	Next Scheduled EDR Contact: 08/17/2015
	Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995	Source: State Water Resources Control Board
Date Data Arrived at EDR: 08/30/1995	Telephone: 916-227-4364
Date Made Active in Reports: 09/26/1995	Last EDR Contact: 01/26/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/27/2009
	Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2014	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 03/10/2015	Telephone: 916-255-6504
Date Made Active in Reports: 03/18/2015	Last EDR Contact: 04/13/2015
Number of Days to Update: 8	Next Scheduled EDR Contact: 07/27/2015
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/25/2015	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 03/10/2015	Telephone: 202-307-1000
Date Made Active in Reports: 03/25/2015	Last EDR Contact: 05/29/2015
Number of Days to Update: 15	Next Scheduled EDR Contact: 09/14/2015
	Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/05/1995	Telephone: 916-341-5851
Date Made Active in Reports: 09/29/1995	Last EDR Contact: 12/28/1998
Number of Days to Update: 24	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009	Source: Department of Public Health
Date Data Arrived at EDR: 09/23/2009	Telephone: 707-463-4466
Date Made Active in Reports: 10/01/2009	Last EDR Contact: 06/01/2015
Number of Days to Update: 8	Next Scheduled EDR Contact: 09/14/2015
	Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990	Source: State Water Resources Control Board
Date Data Arrived at EDR: 01/25/1991	Telephone: 916-341-5851
Date Made Active in Reports: 02/12/1991	Last EDR Contact: 07/26/2001
Number of Days to Update: 18	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

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

Date of Government Version: 06/01/1994	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/07/2005	Telephone: N/A
Date Made Active in Reports: 08/11/2005	Last EDR Contact: 06/03/2005
Number of Days to Update: 35	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/11/2015
Date Data Arrived at EDR: 03/13/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 11

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/09/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 06/09/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 04/14/2015
Date Data Arrived at EDR: 04/29/2015
Date Made Active in Reports: 05/21/2015
Number of Days to Update: 22

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/18/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 6

Source: State Water Quality Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 03/13/2015	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/18/2015	Telephone: 866-480-1028
Date Made Active in Reports: 03/24/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 6	Next Scheduled EDR Contact: 09/28/2015
	Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/10/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/31/2015	Telephone: (415) 495-8895
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 03/31/2015
Number of Days to Update: 72	Next Scheduled EDR Contact: 07/13/2015
	Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 08/07/2012	Telephone: 202-366-4595
Date Made Active in Reports: 09/18/2012	Last EDR Contact: 05/05/2015
Number of Days to Update: 42	Next Scheduled EDR Contact: 08/17/2015
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/14/2015
Number of Days to Update: 62	Next Scheduled EDR Contact: 07/27/2015
	Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/06/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Annually

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: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

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: 12/30/2014
Date Data Arrived at EDR: 12/31/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/03/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 110

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 01/29/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/27/2015
Next Scheduled EDR Contact: 07/06/2015
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/10/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 04/09/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/17/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/31/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 63

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/04/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/07/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/09/2015
Next Scheduled EDR Contact: 07/20/2015
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: 01/18/2015
Date Data Arrived at EDR: 02/27/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 26

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/13/2015	Telephone: 202-564-8600
Date Made Active in Reports: 03/25/2015	Last EDR Contact: 04/27/2015
Number of Days to Update: 40	Next Scheduled EDR Contact: 08/10/2015
	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: 12/31/2011	Source: EPA/NTIS
Date Data Arrived at EDR: 02/26/2013	Telephone: 800-424-9346
Date Made Active in Reports: 04/19/2013	Last EDR Contact: 05/29/2015
Number of Days to Update: 52	Next Scheduled EDR Contact: 09/07/2015
	Data Release Frequency: Biennially

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	Source: Department of Health Services
Date Data Arrived at EDR: 07/27/1994	Telephone: 916-255-2118
Date Made Active in Reports: 08/02/1994	Last EDR Contact: 05/31/1994
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	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: 11/19/2014	Source: Department of Conservation
Date Data Arrived at EDR: 12/15/2014	Telephone: 916-445-2408
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 06/19/2015
Number of Days to Update: 45	Next Scheduled EDR Contact: 09/28/2015
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/18/2015	Source: State Water Resources Control Board
Date Data Arrived at EDR: 05/20/2015	Telephone: 916-445-9379
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 05/20/2015
Number of Days to Update: 22	Next Scheduled EDR Contact: 08/31/2015
	Data Release Frequency: Quarterly

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: 03/10/2015	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 03/31/2015	Telephone: 916-323-3400
Date Made Active in Reports: 04/10/2015	Last EDR Contact: 03/31/2015
Number of Days to Update: 10	Next Scheduled EDR Contact: 07/13/2015
	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 [CAL SITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/22/2009	Telephone: 916-323-3400
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 01/22/2009
Number of Days to Update: 76	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

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: 10/21/1993	Source: State Water Resources Control Board
Date Data Arrived at EDR: 11/01/1993	Telephone: 916-445-3846
Date Made Active in Reports: 11/19/1993	Last EDR Contact: 06/17/2015
Number of Days to Update: 18	Next Scheduled EDR Contact: 10/05/2015
	Data Release Frequency: No Update Planned

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: 02/18/2015	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 02/20/2015	Telephone: 916-327-4498
Date Made Active in Reports: 03/12/2015	Last EDR Contact: 06/05/2015
Number of Days to Update: 20	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Annually

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	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 06/22/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 10/12/2015
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 04/30/2015	Source: State Water Resources Control Board
Date Data Arrived at EDR: 05/01/2015	Telephone: 916-445-9379
Date Made Active in Reports: 05/13/2015	Last EDR Contact: 04/27/2015
Number of Days to Update: 12	Next Scheduled EDR Contact: 08/10/2015
	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: 12/31/2013	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 10/15/2014	Telephone: 916-255-1136
Date Made Active in Reports: 11/19/2014	Last EDR Contact: 04/17/2015
Number of Days to Update: 35	Next Scheduled EDR Contact: 07/27/2015
	Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2012	Source: California Air Resources Board
Date Data Arrived at EDR: 03/25/2014	Telephone: 916-322-2990
Date Made Active in Reports: 04/28/2014	Last EDR Contact: 03/27/2015
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/06/2015
	Data Release Frequency: Varies

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: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 12/08/2006	Telephone: 202-208-3710
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/14/2015
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/27/2015
	Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/09/2011	Telephone: 615-532-8599
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 05/21/2015
Number of Days to Update: 54	Next Scheduled EDR Contact: 08/31/2015
	Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/26/2014	Telephone: 703-603-8787
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 04/10/2015
Number of Days to Update: 64	Next Scheduled EDR Contact: 07/20/2015
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 05/07/2015
Number of Days to Update: 88	Next Scheduled EDR Contact: 08/24/2015
	Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing

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

Date of Government Version: 05/26/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/28/2015	Telephone: 916-323-3400
Date Made Active in Reports: 06/05/2015	Last EDR Contact: 05/28/2015
Number of Days to Update: 8	Next Scheduled EDR Contact: 09/07/2015
	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: 04/13/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 04/15/2015	Telephone: 916-440-7145
Date Made Active in Reports: 04/23/2015	Last EDR Contact: 04/15/2015
Number of Days to Update: 8	Next Scheduled EDR Contact: 07/27/2015
	Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 04/15/2015
Number of Days to Update: 76	Next Scheduled EDR Contact: 07/27/2015
	Data Release Frequency: Varies

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: 01/16/2015	Source: Department of Public Health
Date Data Arrived at EDR: 03/10/2015	Telephone: 916-558-1784
Date Made Active in Reports: 03/18/2015	Last EDR Contact: 06/09/2015
Number of Days to Update: 8	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 06/12/2015
Number of Days to Update: 40	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 05/14/2015
Number of Days to Update: 3	Next Scheduled EDR Contact: 08/24/2015
	Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 03/16/2015	Source: Department of Conservation
Date Data Arrived at EDR: 03/18/2015	Telephone: 916-323-3836
Date Made Active in Reports: 03/24/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 6	Next Scheduled EDR Contact: 09/28/2015
	Data Release Frequency: Quarterly

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 05/01/2015
Number of Days to Update: 83	Next Scheduled EDR Contact: 08/10/2015
	Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/30/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/01/2015	Telephone: 916-255-3628
Date Made Active in Reports: 05/13/2015	Last EDR Contact: 04/27/2015
Number of Days to Update: 12	Next Scheduled EDR Contact: 08/10/2015
	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: 05/18/2015	Source: California Integrated Waste Management Board
Date Data Arrived at EDR: 05/22/2015	Telephone: 916-341-6066
Date Made Active in Reports: 06/05/2015	Last EDR Contact: 05/18/2015
Number of Days to Update: 14	Next Scheduled EDR Contact: 08/31/2015
	Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/09/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/10/2015	Telephone: 202-566-1917
Date Made Active in Reports: 03/25/2015	Last EDR Contact: 05/14/2015
Number of Days to Update: 15	Next Scheduled EDR Contact: 08/31/2015
	Data Release Frequency: Quarterly

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/22/2015
Data Release Frequency: Annually

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: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Annually

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: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: N/A

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 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

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/24/2015
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 US Hist Auto Stat: EDR Exclusive Historic Gas 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 US Hist Cleaners: EDR Exclusive Historic Dry 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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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:

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: 01/21/2015
Date Data Arrived at EDR: 01/28/2015
Date Made Active in Reports: 02/26/2015
Number of Days to Update: 29

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/21/2015
Date Data Arrived at EDR: 01/28/2015
Date Made Active in Reports: 02/26/2015
Number of Days to Update: 29

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 03/09/2015
Date Data Arrived at EDR: 03/24/2015
Date Made Active in Reports: 03/31/2015
Number of Days to Update: 7

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/20/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 44

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing Cupa Facility Listing

Date of Government Version: 04/17/2015
Date Data Arrived at EDR: 04/21/2015
Date Made Active in Reports: 05/07/2015
Number of Days to Update: 36

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List Cupa facility list.

Date of Government Version: 06/11/2014
Date Data Arrived at EDR: 06/13/2014
Date Made Active in Reports: 07/07/2014
Number of Days to Update: 24

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 33

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/04/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List Cupa Facility list

Date of Government Version: 05/19/2015
Date Data Arrived at EDR: 05/22/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 14

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List CUPA facility list.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 7

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/04/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

FRESNO COUNTY:

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: 03/31/2015
Date Data Arrived at EDR: 04/15/2015
Date Made Active in Reports: 04/23/2015
Number of Days to Update: 8

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/06/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 03/11/2015
Date Data Arrived at EDR: 03/13/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 11

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 04/27/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 15

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

KERN COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 07/22/2014
Date Data Arrived at EDR: 11/12/2014
Date Made Active in Reports: 12/19/2014
Number of Days to Update: 37

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

KINGS COUNTY:

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: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/15/2015
Number of Days to Update: 18

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 05/05/2015
Date Data Arrived at EDR: 05/07/2015
Date Made Active in Reports: 05/20/2015
Number of Days to Update: 13

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/16/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

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: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/24/2014
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/04/2015
Number of Days to Update: 33

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/13/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/20/2015
Date Data Arrived at EDR: 04/20/2015
Date Made Active in Reports: 05/07/2015
Number of Days to Update: 17

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/20/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/15/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Varies

Site Mitigation List

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

Date of Government Version: 01/15/2015
Date Data Arrived at EDR: 01/29/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 40

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/16/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 03/06/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

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

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 16

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/14/2015
Date Data Arrived at EDR: 04/23/2015
Date Made Active in Reports: 05/11/2015
Number of Days to Update: 18

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/13/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Semi-Annually

MADERA COUNTY:

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/15/2015
Number of Days to Update: 17

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/08/2014
Date Data Arrived at EDR: 10/22/2014
Date Made Active in Reports: 12/15/2014
Number of Days to Update: 54

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 05/05/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 10

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 02/27/2015
Date Data Arrived at EDR: 03/06/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 4

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 03/19/2015
Date Data Arrived at EDR: 03/20/2015
Date Made Active in Reports: 03/31/2015
Number of Days to Update: 11

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 02/12/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 18

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 05/04/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 24

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 27

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 30

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/12/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

PLACER COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/12/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/28/2015
Date Data Arrived at EDR: 04/30/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 04/28/2015
Date Data Arrived at EDR: 04/30/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/02/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 04/16/2015
Number of Days to Update: 8

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

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: 02/02/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 04/16/2015
Number of Days to Update: 8

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/02/2015
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 7

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/12/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

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: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2014
Date Data Arrived at EDR: 11/21/2014
Date Made Active in Reports: 12/29/2014
Number of Days to Update: 38

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

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: 06/03/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversight 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: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 03/24/2015
Date Data Arrived at EDR: 03/25/2015
Date Made Active in Reports: 03/31/2015
Number of Days to Update: 6

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/10/2015
Number of Days to Update: 15

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/13/2015
Date Data Arrived at EDR: 04/15/2015
Date Made Active in Reports: 04/23/2015
Number of Days to Update: 8

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/15/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Annually

Fuel Leak List

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

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/17/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 7

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

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: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/23/2015
Date Data Arrived at EDR: 02/25/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 6

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

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

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: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 05/07/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 27

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/07/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List

CUPA facility listing.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 13

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 03/11/2015
Date Data Arrived at EDR: 03/13/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 11

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SOLANO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Leaking Underground Storage Tanks

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

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 5

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 03/13/2015
Date Data Arrived at EDR: 03/20/2015
Date Made Active in Reports: 03/31/2015
Number of Days to Update: 11

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List

Cupa Facility list

Date of Government Version: 03/31/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/10/2015
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

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

Date of Government Version: 04/01/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 03/09/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 05/05/2015
Date Data Arrived at EDR: 05/07/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 6

Source: Division of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

VENTURA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 04/27/2015	Source: Ventura County Environmental Health Division
Date Data Arrived at EDR: 05/22/2015	Telephone: 805-654-2813
Date Made Active in Reports: 06/05/2015	Last EDR Contact: 05/18/2015
Number of Days to Update: 14	Next Scheduled EDR Contact: 08/31/2015
	Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

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

Date of Government Version: 12/01/2011	Source: Environmental Health Division
Date Data Arrived at EDR: 12/01/2011	Telephone: 805-654-2813
Date Made Active in Reports: 01/19/2012	Last EDR Contact: 04/02/2015
Number of Days to Update: 49	Next Scheduled EDR Contact: 07/20/2015
	Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 05/18/2015
Number of Days to Update: 37	Next Scheduled EDR Contact: 08/31/2015
	Data Release Frequency: Quarterly

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: 04/27/2015	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 04/29/2015	Telephone: 805-654-2813
Date Made Active in Reports: 05/13/2015	Last EDR Contact: 04/27/2015
Number of Days to Update: 14	Next Scheduled EDR Contact: 08/10/2015
	Data Release Frequency: Quarterly

Underground Tank Closed Sites List

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

Date of Government Version: 02/27/2015	Source: Environmental Health Division
Date Data Arrived at EDR: 03/18/2015	Telephone: 805-654-2813
Date Made Active in Reports: 03/26/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 8	Next Scheduled EDR Contact: 09/28/2015
	Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 03/26/2015	Source: Yolo County Department of Health
Date Data Arrived at EDR: 04/01/2015	Telephone: 530-666-8646
Date Made Active in Reports: 04/13/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 12	Next Scheduled EDR Contact: 10/05/2015
	Data Release Frequency: Annually

YUBA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/19/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 17

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/17/2015
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: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 04/29/2015
Date Made Active in Reports: 05/29/2015
Number of Days to Update: 30

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
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: 05/01/2015
Date Data Arrived at EDR: 05/06/2015
Date Made Active in Reports: 05/20/2015
Number of Days to Update: 14

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/21/2014
Date Made Active in Reports: 08/25/2014
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/16/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/15/2014
Date Made Active in Reports: 08/13/2014
Number of Days to Update: 29

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/11/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Telephone: 281-546-1505

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 PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

Telephone: 800-823-6277

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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, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

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.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

QUALCOMM STADIUM
9449 FRIARS RD
SAN DIEGO, CA 92108

TARGET PROPERTY COORDINATES

Latitude (North):	32.7833 - 32° 46' 59.88"
Longitude (West):	117.1197 - 117° 7' 10.92"
Universal Transverse Mercator:	Zone 11
UTM X (Meters):	488790.6
UTM Y (Meters):	3627080.0
Elevation:	64 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	32117-G1 LA MESA, CA
Most Recent Revision:	1994
West Map:	32117-G2 LA JOLLA, CA
Most Recent Revision:	1996

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 principal 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).

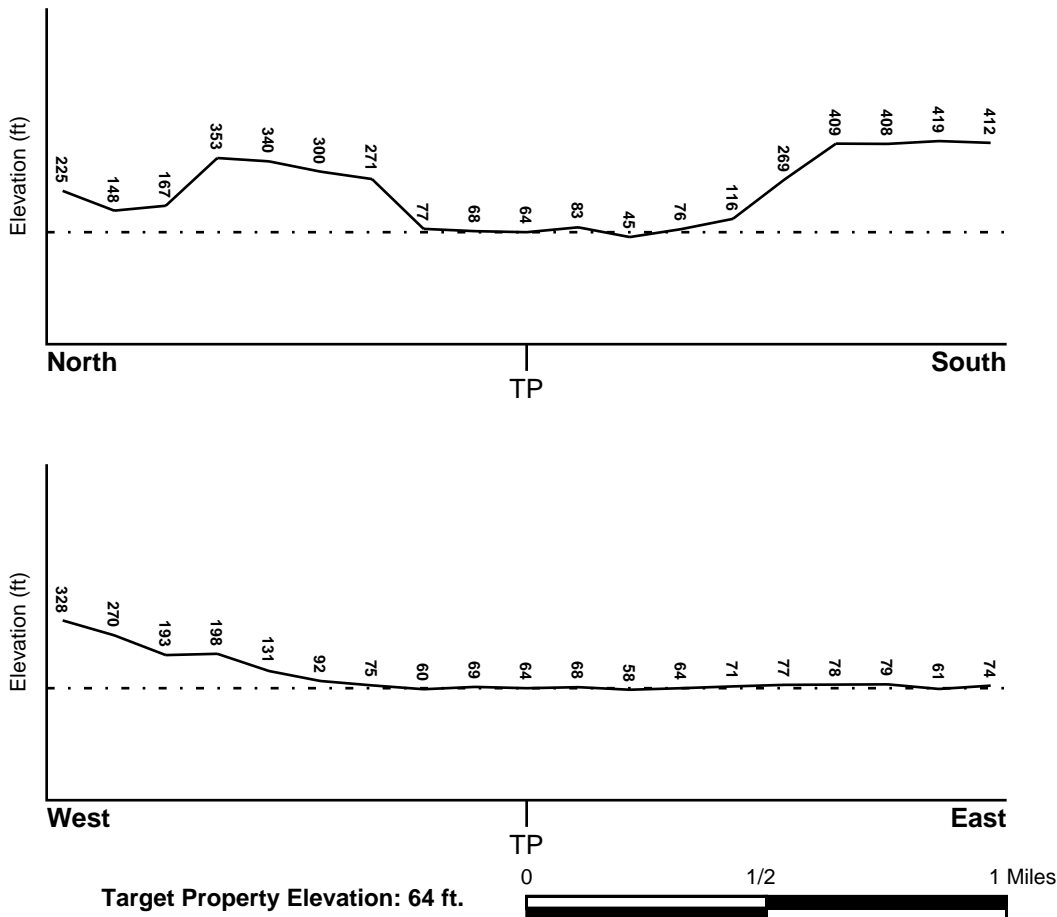
TOPOGRAPHIC INFORMATION

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 South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



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

Target Property County
SAN DIEGO, CA

FEMA Flood
Electronic Data
YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06073C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property
LA MESA

NWI Electronic
Data Coverage
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
Status: Not found

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.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
A2	1/4 - 1/2 Mile NE	Not Reported
A3	1/4 - 1/2 Mile NE	S

For additional site information, refer to Physical Setting Source Map Findings.

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

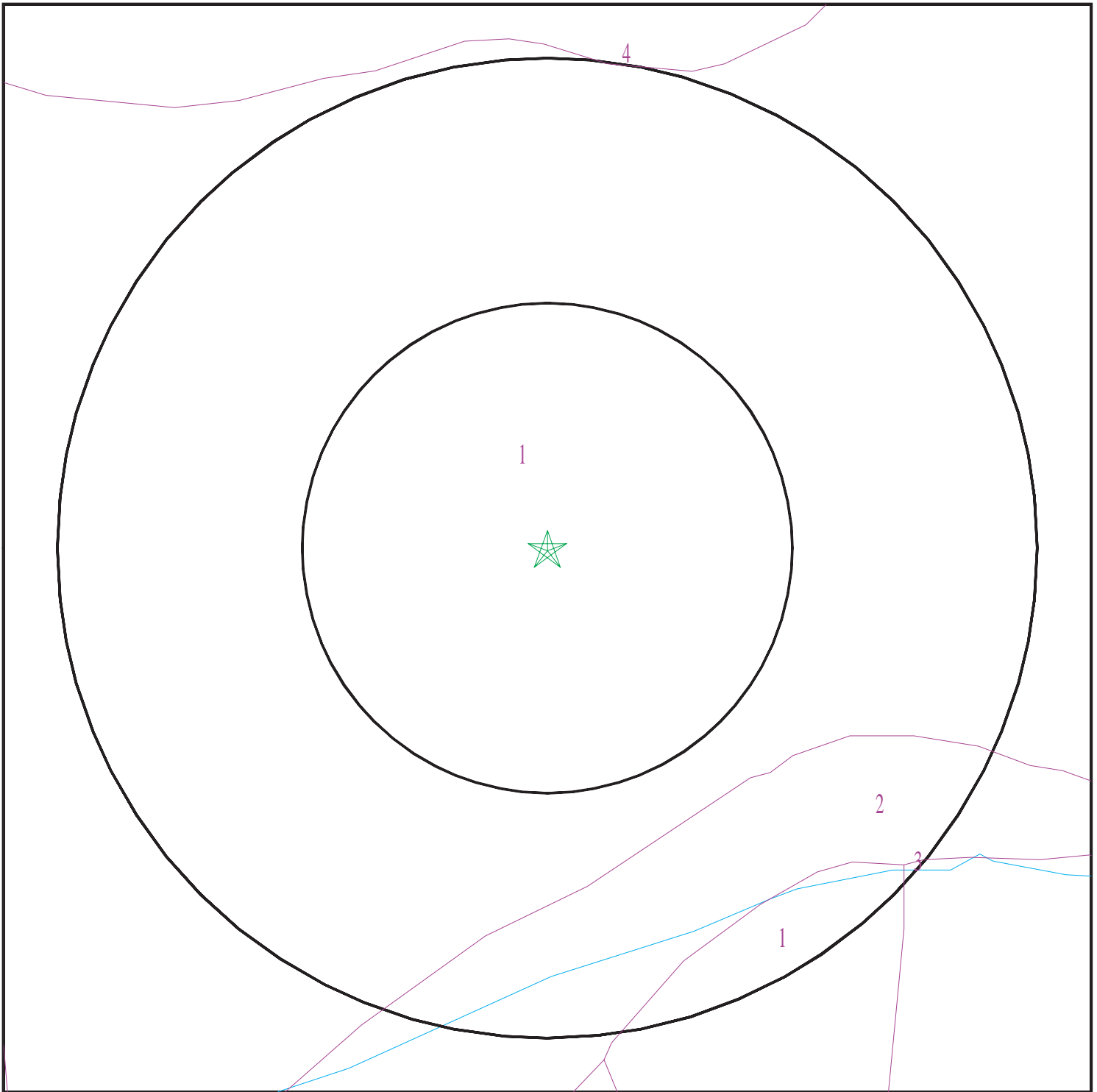
Era:	Cenozoic
System:	Tertiary
Series:	Eocene
Code:	Tec (<i>decoded above as Era, System & Series</i>)

GEOLOGIC AGE IDENTIFICATION

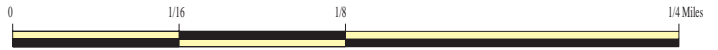
Category: Continental Deposits

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).

SSURGO SOIL MAP - 4337976.2s



- ★ Target Property
- SSURGO Soil
- Water



SITE NAME: Qualcomm Stadium
ADDRESS: 9449 Friars Rd
San Diego CA 92108
LAT/LONG: 32.7833 / 117.1197

CLIENT: AECOM
CONTACT: Sarah Perhala
INQUIRY #: 4337976.2s
DATE: June 26, 2015 1:25 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

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. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: MADE LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 2

Soil Component Name: RIVERWASH

Soil Surface Texture: gravelly coarse sand

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Excessively drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 168 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	gravelly coarse sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel.	Max: 141 Min: 42	Max: Min:
2	5 inches	59 inches	stratified extremely gravelly coarse sand to gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean Gravels, Well-graded gravel.	Max: 141 Min: 42	Max: Min:

Soil Map ID: 3

Soil Component Name: SALINAS

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: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	22 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 Soils.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
2	22 inches	46 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 Soils.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
3	46 inches	64 inches	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 Soils.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

Soil Map ID: 4

Soil Component Name: TERRACE ESCARPMENTS

Soil Surface Texture: variable

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

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

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

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	USGS40000129832	1/4 - 1/2 Mile NNE
B5	USGS40000129810	1/4 - 1/2 Mile South
B6	USGS40000129809	1/4 - 1/2 Mile South
B7	USGS40000129806	1/4 - 1/2 Mile South
B8	USGS40000129807	1/4 - 1/2 Mile South
B9	USGS40000129808	1/4 - 1/2 Mile South
15	USGS40000129829	1/4 - 1/2 Mile ENE
16	USGS40000129800	1/2 - 1 Mile SSW
C17	USGS40000129828	1/2 - 1 Mile ENE
C18	USGS40000129827	1/2 - 1 Mile ENE
19	USGS40000129824	1/2 - 1 Mile East
20	USGS40000129794	1/2 - 1 Mile SW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

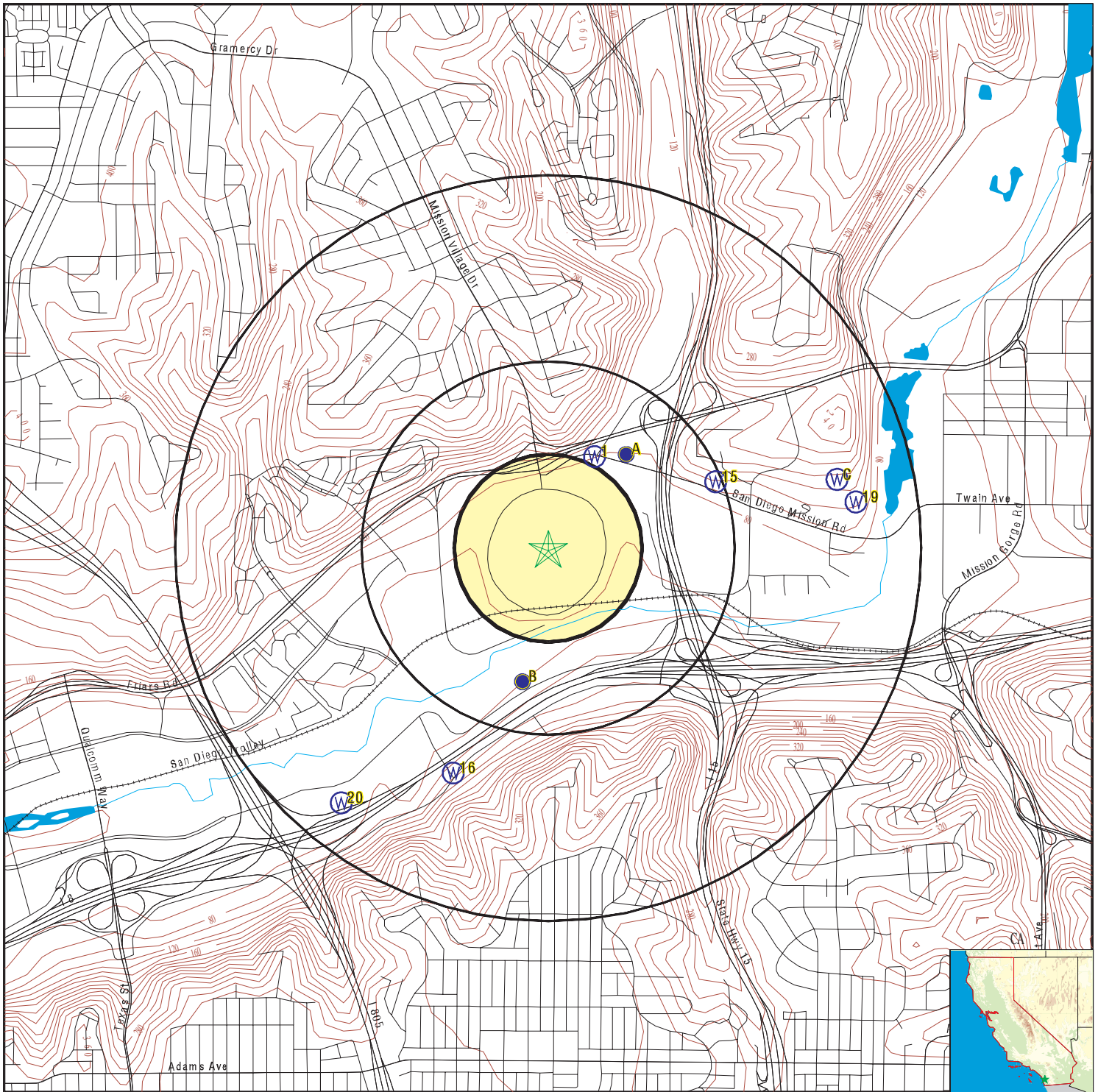
Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
B4	CADW50000000296	1/4 - 1/2 Mile South
B10	CADW50000000294	1/4 - 1/2 Mile South
B11	CADW50000000295	1/4 - 1/2 Mile South
B12	CADW50000000291	1/4 - 1/2 Mile South
B13	CADW50000000292	1/4 - 1/2 Mile South
B14	CADW50000000293	1/4 - 1/2 Mile South

PHYSICAL SETTING SOURCE MAP - 4337976.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: Qualcomm Stadium
 ADDRESS: 9449 Friars Rd
 San Diego CA 92108
 LAT/LONG: 32.7833 / 117.1197

CLIENT: AECOM
 CONTACT: Sarah Perhala
 INQUIRY #: 4337976.2s
 DATE: June 26, 2015 1:25 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

1
NNE
1/4 - 1/2 Mile
Higher **FED USGS** **USGS40000129832**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-324712117070301		
Monloc name:	016S002W08N001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.7868611
Longitude:	-117.1175556	Sourcemap scale:	24000
Horiz Acc measure:	.5	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	72
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19881112	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	21
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A2
NE
1/4 - 1/2 Mile
Higher **AQUIFLOW** **38465**

Site ID:	Not Reported
Groundwater Flow:	Not Reported
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	8
Date:	07/31/1991

A3
NE
1/4 - 1/2 Mile
Higher **AQUIFLOW** **38404**

Site ID:	Not Reported
Groundwater Flow:	S
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	20
Date:	01/28/1987

B4
South
1/4 - 1/2 Mile
Higher **CA WELLS** **CADW50000000296**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Latitude :	32.778106		
Longitude :	117.120864		
Site code:	327781N1171209W006	Casgem sta:	Not Reported
Local well:	Aqua Culture	Casgem s 1:	Observation
County id:	37		
Basin cd:	9-14	Basin desc:	Mission Valley
Org unit n:	Southern Region Office	Site id:	CADW50000000296

B5
South
1/4 - 1/2 Mile
Higher

FED USGS USGS40000129810

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-324641117071505		
Monloc name:	016S002W18J007S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.7781056
Longitude:	-117.1208639	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	59.87
Vert measure units:	feet	Vertacc measure val:	.5
Vert accmeasure units:	feet		
Vertcollection method:	Global Positioning System		
Vert coord refsys:	NAVD88	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	20041028	Welldepth:	50
Welldepth units:	ft	Wellholedepth:	949.5
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

B6
South
1/4 - 1/2 Mile
Higher

FED USGS USGS40000129809

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-324641117071504		
Monloc name:	016S002W18J006S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.7781056
Longitude:	-117.1208639	Sourcemap scale:	24000

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	59.87
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	20041028	Welldepth:	165
Welldepth units:	ft	Wellholedepth:	949.5
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

B7
South
1/4 - 1/2 Mile
Higher

FED USGS USGS40000129806

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-324641117071501		
Monloc name:	016S002W18J003S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.7781056
Longitude:	-117.1208639	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	59.87
Vert measure units:	feet	Vertacc measure val:	.5
Vert accmeasure units:	feet		
Vertcollection method:	Global Positioning System		
Vert coord refsys:	NAVD88	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	20041028	Welldepth:	940
Welldepth units:	ft	Wellholedepth:	949.5
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

B8
South
1/4 - 1/2 Mile
Higher

FED USGS USGS40000129807

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-324641117071502		
Monloc name:	016S002W18J004S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.7781056
Longitude:	-117.1208639	Sourcemap scale:	24000

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	59.87
Vert measure units:	feet	Vertacc measure val:	.5
Vert accmeasure units:	feet		
Vertcollection method:	Global Positioning System		
Vert coord refsys:	NAVD88	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	20041028	Welldepth:	730
Welldepth units:	ft	Wellholedepth:	949.5
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

B9
South
1/4 - 1/2 Mile
Higher

FED USGS USGS40000129808

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-324641117071503		
Monloc name:	016S002W18J005S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.7781056
Longitude:	-117.1208639	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	59.87
Vert measure units:	feet	Vertacc measure val:	.5
Vert accmeasure units:	feet		
Vertcollection method:	Global Positioning System		
Vert coord refsys:	NAVD88	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	20041028	Welldepth:	485
Welldepth units:	ft	Wellholedepth:	949.5
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

B10
South
1/4 - 1/2 Mile
Higher

CA WELLS CADW50000000294

Latitude :	32.7781		
Longitude :	117.1209		
Site code:	327781N1171209W003	Casgem sta:	16S02W18J005S
Local well:	Not Reported	Casgem s 1:	Unknown
County id:	37		
Basin cd:	9-14	Basin desc:	Mission Valley
Org unit n:	Southern Region Office	Site id:	CADW50000000294

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

B11
South
1/4 - 1/2 Mile
Higher

CA WELLS CADW50000000295

Latitude :	32.7781		
Longitude :	117.1209		
Site code:	327781N1171209W005	Casgem sta:	16S02W18J007S
Local well:	Not Reported	Casgem s 1:	Unknown
County id:	37		
Basin cd:	9-14	Basin desc:	Mission Valley
Org unit n:	Southern Region Office	Site id:	CADW50000000295

B12
South
1/4 - 1/2 Mile
Higher

CA WELLS CADW50000000291

Latitude :	32.7781		
Longitude :	117.1209		
Site code:	327781N1171209W001	Casgem sta:	16S02W18J003S
Local well:	Not Reported	Casgem s 1:	Unknown
County id:	37		
Basin cd:	9-14	Basin desc:	Mission Valley
Org unit n:	Southern Region Office	Site id:	CADW50000000291

B13
South
1/4 - 1/2 Mile
Higher

CA WELLS CADW50000000292

Latitude :	32.7781		
Longitude :	117.1209		
Site code:	327781N1171209W002	Casgem sta:	16S02W18J004S
Local well:	Not Reported	Casgem s 1:	Unknown
County id:	37		
Basin cd:	9-14	Basin desc:	Mission Valley
Org unit n:	Southern Region Office	Site id:	CADW50000000292

B14
South
1/4 - 1/2 Mile
Higher

CA WELLS CADW50000000293

Latitude :	32.7781		
Longitude :	117.1209		
Site code:	327781N1171209W004	Casgem sta:	16S02W18J006S
Local well:	Not Reported	Casgem s 1:	Unknown
County id:	37		
Basin cd:	9-14	Basin desc:	Mission Valley
Org unit n:	Southern Region Office	Site id:	CADW50000000293

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

15
ENE
1/4 - 1/2 Mile
Higher

FED USGS USGS40000129829

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-324709117064001		
Monloc name:	016S002W17C001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.7858832
Longitude:	-117.1119763	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	115
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported		
Welldepth units:	Not Reported	Welldepth:	Not Reported
Wellholedepth units:	Not Reported	Wellholedepth:	Not Reported

Ground-water levels, Number of Measurements: 0

16
SSW
1/2 - 1 Mile
Higher

FED USGS USGS40000129800

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-324628117072601		
Monloc name:	016S002W18N001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.7745444
Longitude:	-117.1240722	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from Digital Map		
Horiz coord refsys:	NAD83	Vert measure val:	95
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported	Welldepth:	Not Reported
Construction date:	Not Reported	Wellholeddepth:	18
Welldepth units:	Not Reported		
Wellholeddepth units:	ft		

Ground-water levels, Number of Measurements: 0

C17
ENE
1/2 - 1 Mile
Higher

FED USGS USGS40000129828

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-324709117062501		
Monloc name:	016S002W17B002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.7859444
Longitude:	-117.107	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	140
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholeddepth:	Not Reported
Wellholeddepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

C18
ENE
1/2 - 1 Mile
Higher

FED USGS USGS40000129827

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-324709117062001		
Monloc name:	016S002W17B003S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.786
Longitude:	-117.1057778	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	150
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported	Welldepth:	Not Reported
Construction date:	Not Reported	Wellholeddepth:	Not Reported
Welldepth units:	Not Reported		
Wellholeddepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

19
East
1/2 - 1 Mile
Higher

FED USGS USGS40000129824

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-324706117061901		
Monloc name:	016S002W17B001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.7850944
Longitude:	-117.1055194	Sourcemap scale:	24000
Horiz Acc measure:	.1	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	130
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	20010129	Welldepth:	385
Welldepth units:	ft	Wellholeddepth:	385
Wellholeddepth units:	ft		

Ground-water levels, Number of Measurements: 0

20
SW
1/2 - 1 Mile
Lower

FED USGS USGS40000129794

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-324624117074201		
Monloc name:	016S002W19D001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	Not Reported	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.7733834
Longitude:	-117.1292268	Sourcemap scale:	24000
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Unknown		
Horiz coord refsys:	NAD83	Vert measure val:	50
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Other aquifers		
Formation type:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type: Not Reported
Construction date: Not Reported
Welldepth units: Not Reported
Wellholedepth units: ft

Welldepth: Not Reported
Wellholedepth: 57.6

Ground-water levels, Number of Measurements: 0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92108	6	0

Federal EPA Radon Zone for SAN DIEGO County: 3

- 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 SAN DIEGO COUNTY, CA

Number of sites tested: 30

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.677 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.400 pCi/L	100%	0%	0%
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.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

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.

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 Services

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 Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, 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.

STATE RECORDS

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.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

RADON

State Database: CA Radon

Source: Department of Health Services

Telephone: 916-324-2208

Radon Database for California

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.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

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

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Appendix F

**Qualifications of
Environmental Professional**

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Michele Floren

Manager, Science
Long Beach, CA

Years of Professional Experience: 18

Areas of Competence

Industrial Water & Wastewater
Solid/Hazardous Waste Planning & Integration

Education

BS, Environmental Biology and Management, University of California, Davis

Languages (Fluency)

English, native speaker

Key Industry Sectors

Energy
Oil & Gas
Industrial
Manufacturing
Hazardous Waste
Wastewater Treatment
Chemical
Government

Professional History

AECOM (formerly ENSR)
Neutrogena Corporation
Versar
Burleson Consulting
Campbell's Soup Supply
Duechler Environmental
ATC
Environmental Resources Management (ERM)

Summary

Ms. Floren is manager within AECOM's compliance practice area specializing in regulatory compliance and EMS (ISO 14001) auditing for industry. She has 18 years of experience conducting environmental compliance audits, Phase I Environmental Site assessments, preparing permit applications, and preparing regulatory reports and plans. Ms. Floren has completed over 100 environmental audits for facilities with operations including consumer products manufacturing (pharmaceuticals, cosmetics, skin and hair care, and dairy products), aerospace, airlines, petroleum refining and storage, power plants, alternative energy, specialty gas manufacturing, waste treatment, and concrete industry (concrete manufacturing and concrete products) within the last five years.

Representative Project Experience

Environmental Auditing

Constellation Energy, Environmental Compliance Services, Aliso Viejo, CA. Provide environmental compliance support for air, waste, and water programs for seven power plant facilities located in CA, AZ, and UT. Tasks include permit support, plan writing, training and ensuring that facility regulatory deadlines are met.

NRG, Environmental Auditing, various locations throughout the U.S. Performed multi-media environmental audits of solar, thermal, and natural gas fired facilities. Environmental media audited consisted of air, waste, water, hazardous materials, and Emergency Planning and Community Right to Know Act.

Mesquite Solar 1, LLC Solar Project, Maricopa County, Arizona. Performed annual environmental audits for three consecutive years to assisting with federal funding of the project through the DOE. Environmental audit consisted of water, air, waste, and hazardous materials programs.

NRG Walnut Creek Energy Park, City of Industry, California. Author and conduct annual environmental training for air, waste, water and hazardous materials regulations.

Waste Management, Environmental Auditing, various locations throughout the U.S. Performed multi-media audits of lamp recycling and medical waste processing facilities. Environmental media audited consisted of air, waste, water, Department of Transportation, and hazardous materials.

Tyco Electronics, Environmental Auditing, various locations throughout the US. Performed environmental media audits on air, storm water, wastewater, hazardous materials, and hazardous wastes and prepared associated audit report for facilities.

Enterprise Rent-A-Car Company, Environmental Compliance Services, various locations throughout Southern CA. Provide on-going auditing and compliance assistance with environmental programs consisting of waste handling, water, hazardous materials, underground storage tanks, and air.

Georgia Pacific, Environmental Compliance Services, Various Locations in U.S. Performed environmental media audits on air, storm water, wastewater, hazardous materials, and hazardous wastes and prepared associated audit report for facilities.

PQ Potters, Environmental Compliance Services, Various Locations in AZ. Performed environmental media audits on air, storm water, wastewater, hazardous materials, and hazardous wastes and prepared associated audit report for facilities.

Cargill Horizon, Environmental Compliance Services, Various Locations in CA. Performed environmental media audits on air, storm water, wastewater, hazardous materials, and hazardous wastes and prepared associated audit report for facilities.

Container Distribution and Storage Facilities, Compliance Service, Various locations throughout U.S. Providing environmental compliance support for air, storm water, wastewater, hazardous waste, and hazardous materials storage. Primary duties have included the preparation and coordination of 11 Spill Pollution Control and Countermeasure Plans, and permit applications and transfers.

Neutrogena Corporation, a Johnson & Johnson Company, Environmental Management Systems Development and Compliance Support, Los Angeles, CA. Assisted with development and

Seimens, Environmental Compliance Services, Vernon, CA. Performed environmental media audits on air, storm water, wastewater, hazardous materials, and hazardous wastes and prepared associated audit report for facilities.

United Airlines, Environmental Compliance Audit, Various locations. Conducted environmental compliances audit of United Airline operations located in several states. Operations assessed included aircraft, ground equipment, and facilities/building maintenance activities. Activities related to these operations included hazardous and universal waste management and aboveground waste storage tank management.

ongoing improvement of their Environmental Management System (EMS) and headed programs supporting the EMS. Developed and implanted an EMS Manual and associated procedures, work instructions for control devices, training on these procedures and programs, and maintained and implemented regulatory programs to support ongoing compliance. These regulatory programs included wastewater and storm water programs; air programs; new chemical reviews; hazardous, non-hazardous, and biohazardous waste characterization, disposal, and transportation; regulatory plans and reporting (Hazardous Materials Business Plan; Spill Prevention, Countermeasure, and Control Plan; Storm Water Pollution Prevention and Monitoring Plans, and Biohazardous Waste Management Plans; TRI reporting; Biennial reporting); environmental spill investigations; and regulatory updates. Other tasks included sampling and reporting wastewater quality to the local regulatory agency (LACSD); developing best management practices to improve wastewater quality and the functionality of the wastewater pretreatment system; and interacting with the LACSD on wastewater practices, permit renewals, and inspections.

BP Terminal Facilities, Compliance Audits, Wilmington and Martinez, CA. Performed environmental media audits on air, storm water, wastewater, hazardous materials, and hazardous wastes and prepared associated audit report for facilities.

Naval Research Laboratory, ISO 14001 Implementation, Washington D.C. Assisted with an aggressive schedule for implementation of ISO 14001 at the Naval Research Laboratory and its footprint. Major tasks have consisted of development of the EMS Manual, conducting a gap analysis, identifying aspects/impacts and ranking, procedure development, and working with appropriate staff members to ensure the EMS captures all employees and has employee participation throughout.

Naval Weapons Station, Environmental Compliance Audit, Seal Beach, CA. Conducted a three day audit covering storm water and wastewater compliance with local, state, and Federal regulations.

Naval Hospital Camp Pendleton, ISO 14001 Implementation, Oceanside, California. Assisted with an aggressive schedule for implementation of ISO 14001 at the Naval Hospital and its footprint located at the Marine Corps Base in Camp Pendleton. Major tasks have consisted of development of the EMS Manual, conducting a gap analysis, identifying aspects/impacts and ranking, procedure development, and working with appropriate staff members to ensure the EMS captures all employees and has employee participation throughout.

Hydrogen Energy International, HSSE Management System Implementation, Long Beach, CA. Assisting with the implementation of an Environmental Management System for an alternative energy group. Major tasks have included procedure and plan creation; working at the corporate level to identify gaps in the management system and addressing gaps; training program development and implementation; and developing compliance and permit registers.

Ameron International, Environmental Compliance Audits, California and Arizona. Conducted environmental compliance and environmental management systems audits of seven concrete and steel pipe manufacturing facilities in California and Arizona. Operations assessed included ground equipment and facilities/building maintenance activities. Activities related to these operations included hazardous and universal waste management, wastewater discharges, storm water

prevention measures, underground and above ground storage tank management, SPCC plans, and air quality permitting and management for both stationary and mobile sources. Operations were audited to federal, state and local laws and regulations. Identified compliance gaps and recommended corrective actions.

Shell Aviation Fuel Services, Compliance Audit, Various Locations, CA. Conducted environmental compliance audits for aircraft fueling and vehicle maintenance activities of the Shell Aviation fueling services at Los Angeles International Airport, San Francisco International Airport, and Burbank Airport. Operations were audited to federal, state and local laws and regulations.

United Airlines, Environmental Compliance Audit, San Francisco, CA. Conducted an environmental compliance audit of United Airline operations located at the San Francisco Maintenance Center. Operations assessed included aircraft, ground equipment, and facilities/building maintenance activities. Activities related to these operations included hazardous and universal waste management and above ground waste storage tank management. Operations were audited to federal, state and local laws and regulations as well as United policies and procedures. Findings as well as recommended corrective actions were presented within an Access-based data management program.

Wastewater Treatment Facility, Wastewater Pretreatment Support, Santa Fe Springs, CA. Completed wastewater permitting and application process and responded to LACSD comments to application packages for a large wastewater pretreatment facility. The facility accepts wastewater from industrial facilities in the Los Angeles region and pretreats wastewater before discharging to the Publicly Owned Treatment Works.

BP Wilmington Calciner, On-Going Environmental Compliance Support, Wilmington, CA. Provided general environmental compliance support for air, storm water, wastewater, and waste operations for a coke calcining facility. Tasks included reporting and data collection for air permits, report preparation and permit renewals for LACSD and city (Long Beach and Los Angeles) wastewater permits, and report completion,

sampling, and permit renewal for storm water permits. Other tasks included procedure development for storm water, wastewater, and waste programs; facility audits; preparation and updates of facility plans (i.e. SPCC, SWPPP, EAP); and training employees on storm water, wastewater, and waste operations.

Air Liquide, Phase I Environmental Site Assessment and Compliance Audit, Fremont CA.

Conducted and environmental site assessment and compliance audit of an industrial gas storage and dispensing facility located in Fremont, California. Site operations were also assessed for general compliance with applicable environmental federal, state and local laws and regulations. The site's land use history was a major focus of the assessment. A report was prepared that identified both potential environmental issues of concern as well as environmental compliance issues.

Phase I Environmental Site Assessment & Environmental Compliance Assessment

Confidential, Confidential Client, Covina, CA.

Conducted ESA of a label printing facility located in Covina, California. Current operations at the site included the bulk storage of inks and solvents. Site

operations were also assessed for general compliance with applicable environmental federal, state and local laws and regulations. The site's land use history was a major focus of the assessment. A report was prepared that identified both potential environmental issues of concern as well as environmental compliance issues.

Campbell's Soup Supply Company, Compliance Support, Sacramento, CA.

Assisted Senior Environmental Engineer at a large manufacturing facility, with rectifying non-compliance issues identified during environmental compliance audits, researched federal, state, and local regulations concerning non-compliance issues, evaluated solutions, and implemented new methods of conformance. Programs worked on included local air regulation compliance (VOC emissions) and proper waste management.

Various Clients, State and Federal Regulatory Training Guides, United States.

Served as a member of a project team that created training handbooks for various companies in the United States. These training manuals consisted of information pertaining to federal, state, and local regulatory guidance.