



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

RECEIVED

4:06 pm, Apr 07, 2010

**Alameda County
Environmental Health**

March 15, 2010

INTERIM REMEDIAL ACTION COMPLETION REPORT
AND
UPDATED REMEDIAL ACTION PLAN
LIM PROPERTY
250 8TH STREET
OAKLAND, CALIFORNIA
(ASE JOB NO. 2808)
(RO #0000479)
(USTCF Claim Number 7699)

for

Alice Ng Lim & May Lee Lim
c/o Mr. Russell Lim
3111 Diablo Road
Lafayette, CA 94549

Submitted by:

Aqua Science Engineers
208 West El Pintado Road
Danville, CA 94526
(925) 820-9391



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

TABLE OF CONTENTS

SECTION		PAGE
1.0	INTRODUCTION	1
2.0	SITE HISTORY AND BACKGROUND INFORMATION	1
3.0	SCOPE OF WORK (SOW) FOR EXTRACTION WELL INSTALLATION AND COMPLETION OF A 30 DAY DUAL PHASE EXTRACTION (DPE) EVENT	6
4.0	DETAILS OF THE EXTRACTION WELL INSTALLATION AND 30-DAY DPE EVENT	8
5.0	NEXT PHASE OF REMEDIATION	15
6.0	OZONE SPARGING REMEDAITION DESCRIPTION	15
7.0	VAPOR-EXTRACTION REMEDIATION SYSTEM	18
8.0	PERMITS	20
9.0	SCHEDULE OF ACTIVITIES	21

LIST OF FIGURES

FIGURE 1	LOCATION MAP
FIGURE 2	SITE PLAN SHOWING ALL SOIL, VAPOR AND GROUNDWATER BORINGS, AND ALL GROUNDWATER MONITORING, VAPOR MONITORING INJECTION AND EXTRACTION WELLS
FIGURE 3	TPH-G IN GROUNDWATER ISOCONCENTRATION MAP
FIGURE 4	BENZENE IN GROUNDWATER ISOCONCENTRATION MAP
FIGURE 5	CROSS SECTION LOCATION MAP
FIGURE 6	CROSS SECTION A-A' MAP
FIGURE 7	CROSS SECTION B-B' MAP
FIGURE 8	CALCLEAN PROCESS FLOW DIAGRAM



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

LIST OF FIGURES, CONTINUED

FIGURE 9	PROPOSED OZONE-SPARGING WELL LOCATION MAP
FIGURE 10	TYPICAL OZONE-SPARGING WELL IN CROSS SECTION
FIGURE 11	TYPICAL OZONE-SPARGE REMEDIATION UNIT SCHEMATIC
FIGURE 12	PROPOSED OZONE-SPARGING SYSTEM AND TRENCH DETAILS
FIGURE 13	PROPOSED EXTRACTION WELL LOCATION MAP
FIGURE 14	PROPOSED VAPOR-EXTRACTION SYSTEM AND TRENCH DETAILS

LIST OF TABLES

TABLE ONE	GROUNDWATER ELEVATIONS
TABLE TWO	HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS FOR PETROLEUM HYDROCARBONS
TABLE THREE	HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS FOR OIL & GREASE AND VOCs
TABLE FOUR	EXTRACTION WELL SOIL ANALYTICAL RESULTS FOR PETROLEUM HYDROCARBONS

LIST OF APPENDICES

APPENDIX A	PERMITS
APPENDIX B	SOIL BORING AND WELL COMPLETION LOGS FOR EXTRACTION WELLS
APPENDIX C	CALCLEAN 2009 DPE REPORT
APPENDIX D	ANALYTICAL REPORT AND CHAIN OF CUSTODY FROM KIFF FOR SOIL SAMPLES COLLECTED DURING EXTRACTION WELL INSTALLATION
APPENDIX E	SURVEY RESULTS FROM MID COAST ENGINEERS



1.0 INTRODUCTION

This document presents Aqua Science Engineers, Inc.'s (ASE's) INTERIM remedial action completion report detailing the 30-day Dual-Phase Extraction (DPE) event completed by CalClean in August and September 2009. This document also includes ASE's final remedial action plan (RAP) for remediation of shallow groundwater and vadose-zone hydrocarbons in the areas of the former USTs and downgradient of the USTs at the Lim Property located at 250 8th Street in Oakland, California (Figures 1 and 2).

2.0 SITE HISTORY AND BACKGROUND INFORMATION

2.1 May 1992 Underground Storage Tank Removal

A gasoline service station previously occupied the site. In May 1992, ASE removed ten underground fuel storage tanks (USTs) from the site. The USTs consisted of one (1) 10,000-gallon gasoline tank, one (1) 5,000-gallon diesel tank, three (3) 2,000-gallon gasoline tanks, one (1) 2,000-gallon diesel tank, three (3) 500-gallon gasoline tanks, and one (1) 250-gallon waste oil tank. Up to 10,000 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPH-G) and 5,900 ppm total petroleum hydrocarbons as diesel (TPH-D) were detected in soil samples collected during the tank removal.

2.2 December 1992 through March 1993 Soil Overexcavation

Between December 1992 and March 1993, All Environmental of San Ramon, California overexcavated 1,762 cubic yards of soil from the site and off-hauled the soil to the BFI Landfill in Livermore, California for disposal (Figure 2). Analytical results show that all on-site soil with hydrocarbon concentrations greater than 10 ppm was removed from the site with the exception of soil along the 8th Street shoring. Up to 1,800 ppm TPH-G and 120 ppm TPH-D were detected in soil samples collected along the shoring indicating that contamination likely extends below 8th Street. This contamination left in place may still be a source for groundwater contamination.

2.3 January 1995 Monitoring Well Installation

In January 1995, ASE installed monitoring wells MW-1 and MW-2 at the site (Figure 2). Elevated hydrocarbon concentrations were detected in monitoring well MW-2, downgradient of the site. Moderate hydrocarbon concentrations were detected in on-site monitoring well MW-1.

2.4 January 1996 Borings and Groundwater Sampling

In July 1996, ASE collected groundwater samples from each monitoring well and drilled borings BH-C and BH-D to further define the width of the hydrocarbon plume downgradient of the site. Relatively high hydrocarbon concentrations were detected in groundwater samples collected from monitoring well MW-2, downgradient of the site. Slightly lower but still very high hydrocarbon concentrations were detected in groundwater samples collected from boring BH-D,



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

west of monitoring well MW-2. Very low hydrocarbon concentrations were detected in groundwater samples collected from monitoring well MW-1, located on the site, and boring BH-C, east of monitoring well MW-2. Based on these findings, the plume appears to be moving to the south of Excavation I.

2.5 Quarterly Groundwater Monitoring

In April 1995, ASE began a quarterly groundwater monitoring program for the site. Since that time, the site has been on either a quarterly or semi-annual sampling schedule. Depth to groundwater data and analytical results for all groundwater sampling periods are tabulated in Tables One through Three in the Tables section of this report.

2.6 June 1997 Remedial Action Plan

On June 5, 1997, ASE prepared a remedial action plan (RAP) addressing the need for groundwater remediation at the site, describing the appropriateness of several remedial options and choosing an option. Low flow hydrogen peroxide injection was chosen as the groundwater remediation option of choice for the site in order to raise dissolved oxygen (DO) concentrations in the groundwater to stimulate in-situ bioremediation.

2.7 February 1999 Hydrogen Peroxide Remediation System Installation

On February 2 and 3, 1999, five (5) injection wells (IW-1 through IW-5) were installed at the site (Figure 2). On February 18, 1999, the injection system began operation. It delivered a water and hydrogen peroxide solution to each injection well on a constant basis. DO concentrations within the injection wells rose to above 20 ppm. Groundwater in downgradient monitoring well MW-2 never showed a measurable increase in DO.

2.8 June 1999 Discovery of Free-Floating Hydrocarbons

On June 22, 1999, while measuring the DO content within the injection wells, ASE discovered that the DO probe had a very strong gasoline odor when removed from injection well IW-5. A clear bailer was inserted into IW-5 to check for the presence of free-floating hydrocarbons. The bailer contained approximately 18-inches of what appeared to be aged gasoline. On June 24, 1999, ASE returned to the site with an interface probe to accurately measure the thickness of the free-floating hydrocarbons. On that day, 1.75-feet of free-floating hydrocarbons was measured on the water surface in IW-5. Injection well IW-4 (15-feet east of IW-5) was measured with the interface probe and did not contain a measurable thickness of floating hydrocarbons. On June 24, 1999, ASE bailed the free-floating hydrocarbons from IW-5 until only a sheen was present on the water surface. Approximately 3 gallons of product was removed from IW-5. ASE continued to measure and bail the floating product within well IW-5 on a bi-weekly basis.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

2.9 January 2000 Monitoring Well Installation

In January 2000, ASE installed groundwater monitoring wells MW-3 and MW-4, east of injection well IW-5 and monitoring well MW-2 (Figure 2). High hydrocarbon concentrations were detected in groundwater samples collected from both of these wells, including up to 140,000 parts per billion (ppb) TPH-G, 13,000 ppb TPH-D and 22,000 ppb benzene.

2.10 April 2000 Groundwater Sampling

In April 2000, ASE collected groundwater samples from all four monitoring wells. Elevated hydrocarbon concentrations were detected in groundwater samples collected from monitoring wells MW-2, MW-3 and MW-4, including up to 240,000 ppb TPH-G, 700,000 ppb TPH-D and 35,000 ppb benzene. Monitoring well MW-3 contained free-floating hydrocarbons.

2.11 Hydrogen Peroxide System Discontinuation

On November 27, 2000, with the approval of the Alameda County Health Care Services Agency (ACHCSA), ASE turned off the hydrogen peroxide injection system since there was no noticeable DO increase in downgradient monitoring wells MW-2 and MW-4 on the west side of 8th Street.

2.12 May 2002 Monitoring Well Installation

In May 2002, ASE installed groundwater monitoring wells MW-5 and MW-7 south of the site, across 8th Street, and MW-6 northwest of the site approximately 70 feet west of existing monitoring well MW-3 (Figure 2). Low concentrations of MTBE were identified in groundwater samples collected from wells MW-5 and MW-6. High concentrations of petroleum hydrocarbons were identified in well MW-7, including up to 38,000 ppb TPH-G and 890 ppb benzene.

2.13 October 2004 DPE Event

In October 2004, CalClean mobilized to the site with a truck-mounted DPE system to perform both a DPE pilot test and a 14-day DPE interim remediation event at the site. At the completion of the DPE interim remediation event, a total of 94,470 gallons of free-product and groundwater were removed from three extraction wells. The average TPH-G concentration in the extracted groundwater was 13,900 ppb; the average benzene concentration of that extracted groundwater was 780 ppb. The extracted groundwater was treated on-site with activated carbon vessels, and then discharged, under permit, to the East Bay Municipal Utilities District (EBMUD) sanitary sewer system on-site.

A total of 2.3 million cubic feet of hydrocarbon-laden vapors were extracted from three extraction wells during the 15 day event. Based on field measurements and laboratory analytical data, over 7,000 pounds of petroleum hydrocarbons were extracted from three extraction wells



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

during the 15-day event. This equates to approximately 1,150 gallons of petroleum hydrocarbons. The extracted vapors were treated on-site by CalClean's thermal oxidizer. Based on the success of this DPE event, ASE recommended a second DPE event for the site prior to designing and installing a long-term remediation system. Complete details of the CalClean DPE Event are within ASE's report of remediation effectiveness dated January 10, 2005.

2.14 ASE DPE System Remediation Events

On February 13, March 14, and April 19 2007, ASE performed 10-hour DPE events at the site using ASE's mobile DPE remediation system. ASE's system consists of a high-vacuum, rotron blower to extract hydrocarbon-laden vapors from the extraction well. The vapors are then treated before atmospheric discharge by four 250 pound vapor-phase activated carbon vessels, plumbed in parallel. Groundwater is removed from the extraction well simultaneously, and the hydrocarbon-laden groundwater is stored within a temporary tank on site for later off-site disposal.

During the three 10-hour DPE events, monitoring well MW-3 and injection well IW-5 were used as the extraction points. Based on analytical results of air bag samples collected from the influent vapor stream during the three events, approximately 19 gallons of gasoline were removed from the vadose zone at the site. 4,000 gallons of groundwater and free-floating product was removed and later offhauled from the site for disposal at a local recycling facility.

2.15 February and March 2007 Soil, Vapor & Groundwater Assessment Activities

During February and March 2007, ASE performed a soil and groundwater assessment consisting of seven (7) Geoprobe soil borings (SB-1 through SB-7) for the collection of soil and groundwater samples on and off site (Figure 2). One of the Geoprobe borings was drilled to a depth of 60-feet bgs to determine the vertical extent of hydrocarbon pollution in groundwater on site. During March 2007, ASE performed a vadose zone vapor sampling assessment consisting of seven temporary vapor points (SV-1 through SV-7) for the collection of vapor samples on and off site (Figure 2). Based on the analysis of soil, groundwater and vapor samples, it was concluded that (a) the likelihood of deep groundwater pollution on site was very low due to the decreasing trend of concentrations of discrete depth samples, (b) the four on-site Geoprobe borings contained hydrocarbon concentrations in groundwater above ESLs for several compounds, but none of the off-site Geoprobes contained pollution that appeared to be the result of on-site activities, and (c) six of the seven vapor samples collected on and off site contained elevated concentrations of TPH-G and benzene.

Based on the findings, ASE installed a deep zone monitoring well on site, performed additional vapor sampling activities upgradient to the site, and also performed an indoor air assessment of the on-site and off-site buildings.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

2.16 January, February and March 2008 Soil, Groundwater, Soil Vapor and Indoor Air Assessments

In January 2008, ASE installed monitoring well MW-8 to a total depth of 49-feet bgs. This well is screened between 44-feet bgs and 49-feet bgs to assess deep groundwater pollution beneath the location of the former USTs. Groundwater from this well indicates that deep hydrocarbon pollution does not exist below the shallow groundwater at the site.

In January 2008, an indoor air assessment was performed inside the on-site building as well as several buildings across 8th Street and adjacent to the site. An ambient air control sample was also collected to be used as a baseline to compare the indoor air results. Based on the findings of the indoor air study for the off-site buildings, it was concluded that it was unlikely that vapor intrusion from subsurface soils is contributing significantly to occupant dose in any of the off-site structures. As for the on-site structure, it was concluded that the vehicle maintenance operations that occur within the building were likely contributing to the elevated indoor air hydrocarbon concentrations, not from subsurface conditions.

In February 2008, ASE drilled Geoprobe soil borings SB-8, SB-9 and SB-10 on the upgradient property to the north, 817 Alice Street (Figure 2). ASE also drilled temporary soil vapor points SV-8, SV-9 and SV-10 adjacent to the Geoprobe borings (Figure 2). The only hydrocarbon detected in soil from these borings was 1.0 ppm TPH-D in SB-8. SB-8 and SB-9 contained TPH-D in groundwater at 150 ppb and 650 ppb, respectively. Very low concentrations of TPH-G and BTEX were identified in the vapor samples collected from vapor points SV-8, SV-9 and SV-10. However, none of the concentrations exceeded residential or commercial ESLs.

The report detailing the 2008 assessment activities, dated March 20, 2008, concluded that the horizontal and vertical extent of hydrocarbons has been defined in soil and groundwater in every direction. ASE recommended no further assessment activities. Based on the continued existence of free-floating product at the site, ASE recommended dual phase extraction as the preferred method to remove the free-floating hydrocarbons.

2.17 Current Groundwater Monitoring Program

The site is currently on a semi-annual groundwater monitoring program. Up to date, current, depth to groundwater and analytical results for all historical groundwater sampling events are tabulated in the Tables section of this report as Tables One through Three. Current, isoconcentration maps for TPH-G and benzene in groundwater are included as Figures 3 and 4, respectively. A cross section location map, representing subsurface conditions through 2008, is included as Figure 5, and the geologic cross-sections are included as Figures 6 and 7.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

2.18 2009 INTERIM Remedial Action Plan

In the ASE March 2009 INTERIM remedial action plan, ASE detailed that during recent groundwater monitoring events, free-floating hydrocarbons had returned to monitoring well MW-3. The thickness had typically been measured at approximately 0.5 feet. Complete remediation of the affected soil and groundwater on site and downgradient of the site needed to be performed. Later in March 2009, free-product was discovered for the first time ever in monitoring well MW-4, across 8th Street. The scope of work for the interim remedial action was to remove the mass of free-floating hydrocarbons that exist near the driveway entry to the site on 8th Street and directly across 8th Street in MW-4. ASE's general recommendation was to install five (5) additional extraction wells on-site and convert MW-4 to a 4-inch well, and then perform a 30-day DPE event using CalClean personnel and their equipment. The scope of work for this remedial effort is detailed below.

3.0 SCOPE OF WORK (SOW) FOR EXTRACTION WELL INSTALLATION AND COMPLETION OF A 30 DAY DUAL PHASE EXTRACTION (DPE) EVENT

The following is ASE's scope of work for the installation of five extraction wells, one re-drill, and completion of a 30-day DPE Event:

- 1) Obtain a drilling permit from the Alameda County Public Works Agency (ACPWA).
- 2) Prepare a site-specific health and safety plan.
- 3) Contract with a subsurface utility locating service to clear drilling locations of underground utility lines.
- 4) Using a hollow-stem auger drill rig, drill six (6) soil borings to a depth of 30-feet bgs and construct extraction wells in the borings. Collect soil samples as drilling progresses.
- 5) Develop the new extraction wells using surge block agitation and pump and/or bailer evacuation.
- 6) Measure free-floating hydrocarbon thickness in all site wells prior to the DPE event.
- 7) Analyze soil samples collected from each boring described in task 4 at a CAL-DHS certified analytical laboratory for TPH-D by EPA Method 8015 and TPH-G, BTEX, and fuel oxygenates by EPA Method 8260B.
- 8) Survey the top of casing elevation of each new well relative to the mean sea level (msl).
- 9) Secure a Special Discharge Permit from EBMUD to discharge the treated groundwater to the on-site sanitary sewer.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

- 10) Mobilize to the site with CalClean personnel to perform the HVDPE event. Perform pre DPE event start-up operating procedures tests. Measure the depth to water, and depth to free-floating hydrocarbons if present, in all five injection wells (IW-1 through IW-5), the five new extraction wells (EW-1 through EW-5), replacement well MW-4R, and monitoring well MW-3.
- 11) Connect the HVDPE equipment to the wells detailed in number 6 above that have the greatest thickness of free-floating hydrocarbons. The HVDPE equipment is capable of extracting from multiple wells at a time. Begin 30-day remediation event.
- 12) Extract free-floating hydrocarbons, groundwater and vapors from the selected extraction wells.
- 13) Every other day, relocate the DPE equipment across 8th Street and extract from well MW-4R for 8-10 hours. Transfer the recovered water to the tank on-site and treat the water the following day. Continue this process throughout the 30-day DPE event.
- 14) Destroy the non-aqueous phase hydrocarbons and petroleum-hydrocarbon laden vapors with the truck-mounted thermal oxidizer.
- 15) Treat the hydrocarbon-laden groundwater with the activated carbon water treatment system.
- 16) Discharge the treated groundwater to the EBMUD sanitary sewer.
- 17) Collect vapor samples from the influent stream at the start, end and at key points during the HVDPE event.
- 18) Analyze the vapor samples at a CAL DHS certified analytical laboratory for TPH-G, BTEX and MTBE by EPA Method 8260B.
- 19) Collect data to determine a radius of influence of the HVDPE system on several outlying wells at the start, end, and at key points during the HVDPE event.
- 20) Prepare a report detailing the well installation and performance of the DPE event. Make recommendations for future remedial activities at the site.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

4.0 DETAILS OF THE EXTRACTION WELL INSTALLATION AND 30-DAY DPE EVENT

TASK 1 - OBTAIN A DRILLING PERMIT FROM THE ALAMEDA COUNTY PUBLIC WORKS AGENCY

Prior to drilling, ASE obtained a drilling permit from the ACPWA. See Appendix A for a copy of the permit.

TASK 2- PREPARE A HEALTH AND SAFETY PLAN

Prior to conducting field activities, a Health and Safety Plan was prepared outlining all field activities to be performed at the site during the well drilling and HVDPE activities. A copy of the Health and Safety Plan was available onsite during all field activities.

TASK 3 - CONTRACT WITH AN UNDERGROUND UTILITY LINE LOCATING SERVICE TO ACCURATELY LOCATE UNDERGROUND UTILITY LINES IN DRILLING LOCATIONS

ASE contacted Underground Service Alert (USA) prior to drilling. ASE also contracted with Subtronic Corporation of Concord, California, a private underground utility locating service, to pinpoint the location of utility lines in the drilling locations.

TASK 4 - INSTALL EXTRACTION WELLS

On May 19 and May 21, 2009, ASE drilled five borings and re-drilled one monitoring well at the site using a drill rig equipped with 10-inch diameter hollow-stem augers for the installation of 4-inch diameter extraction wells (Figure 2). This drilling was directed by ASE senior geologist Robert Kitay, P.G. Extraction wells EW-1 thru EW-5 were drilled on the subject site in the area of the former USTs and where soil boring data showed elevated concentrations of hydrocarbons in soil and groundwater existed. Monitoring well MW-4 was drilled out then re-built as a 4-inch diameter well because it existed as a 2-inch well and free-floating hydrocarbons were recently identified in this well. The 4-inch diameter well would be more sufficient at allowing for water/product removal and an appropriate cone of depression during the DPE event.

Undisturbed soil samples were collected at least every 5-feet, at lithographic changes, and from just above the water table for subsurface hydrogeologic description and possible chemical analysis. The ASE geologist described the samples according to the Unified Soil Classification System (USCS). The samples were collected in brass or stainless steel tubes using a split-barrel drive sampler advanced by repeated blows from a 140-lb. hammer dropped 18-inches. Samples to be retained for analysis were immediately removed from the sampler, trimmed, sealed with Teflon tape and plastic caps, labeled with the site location, sample designation, date and time the sample was collected, and the initials of the person collecting the sample. The samples were placed into an ice chest containing wet ice for delivery under chain of custody to a CAL-DHS certified analytical laboratory.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

Soil from the remaining tubes not sealed for analysis were removed for hydrogeologic description and were screened for volatile compounds with a photoionization detector (PID). The soil was screened by emptying soil from one of the tubes into a plastic bag. The bag was sealed and placed in the sun for approximately 10 minutes. After the hydrocarbons have been allowed to volatilize, the PID measured the vapor through a small hole, punched in the bag. These PID readings were used as a screening tool only since these procedures are not as rigorous as those used in an analytical laboratory.

All sampling equipment was cleaned in buckets with brushes and an Alconox solution, then rinsed twice with tap water. Rinsates were contained on-site in 55-gallon steel drums and stored on-site until they were remediated by the CalClean equipment discussed later in this report.

ASE completed the borings as extraction wells EW-1 through EW-5. All of these wells were constructed with 4-inch diameter, flush-threaded, schedule 40, 0.010-inch factory slotted PVC well screen and blank casing. The well casing in each well was lowered through the augers and #2/12 Monterey sand was placed in the annular space between the well casing and the borehole to approximately 2-feet above the screened interval. Approximately 2-feet of bentonite pellets were placed on top of the sand pack and hydrated with water. This bentonite layer will prevent the cement sanitary seal from infiltrating into the sand pack. Cement mixed with 3 to 5 percent bentonite powder by volume was used to fill the annular space between the bentonite layer and the surface to prevent surface water from infiltrating into the well. The well heads were protected by a locking well plug and an at-grade, traffic-rated well box. See Appendix B for a copy of the soil boring and well completion logs.

Monitoring well MW-4 was destroyed by lowering a steel rod into the 2-inch diameter well casing. The well was then drilled out by drilling around the casing with 10-inch diameter hollow-stem augers. The well was then drilled to the total depth, and all casing, well screen, sand pack, and cement and bentonite seals were removed to the total depth. The well was then re-built using 4-inch diameter PVC casing in the same manner as the wells described in the preceding paragraph. This new, reconstructed well is now referred to as MW-4R.

TASK 5 - DEVELOP THE EXTRACTION AND REPLACEMENT WELLS

The new extraction wells and MW-4R were surged by the drilling subcontractor prior to placement of the seal. The silt within the wells was evacuated by CalClean during the DPE event.

TASK 6 - MEASURE FREE-FLOATING HYDROCARBON THICKNESS OR SAMPLE THE EXTRACTION WELLS

CalClean representatives measured the depth to groundwater and checked for free-floating hydrocarbons in all site wells prior to their 30-day DPE event. See the CalClean report in Appendix C for complete details. Free-floating hydrocarbons were not evident in any of the site wells prior to or during the CalClean DPE event conducted in August and September 2009.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

TASK 7 - ANALYZE THE SOIL SAMPLES FROM THE EXTRACTION WELLS

Soil samples were collected at 5-foot intervals. In each of the five extraction wells, two soil samples were analyzed where there was evidence of soil contamination based on odors, PID readings, or staining. Analyses for all soil samples was completed by Kiff Analytical of Davis, California and included TPH-D by modified EPA Method 3510/8015M, and TPH-G, BTEX, and five oxygenates by EPA Method 8260B. The analytical results of these soil samples are tabulated in Table Four. A copy of the certified analytical report from Kiff is attached in Appendix D.

TASK 8 - SURVEY THE TOP OF CASING ELEVATION OF EACH WELL

On November 9, 2009, the five new extraction wells (EW-1 thru EW-5) and monitoring well MW-4R were surveyed by Mid Coast Engineers of Watsonville, California. The top of casing, ground surface elevation, northing and easting were all surveyed to Geotracker Standards. The survey data is included as Appendix E.

TASK 9- SECURE DISCHARGE PERMIT

ASE secured a Special Discharge Permit from EBMUD to discharge the treated groundwater to the on-site sanitary sewer during the 2009 DPE event, permit number 50553802 (Appendix A). CalClean was responsible for maintaining their permit with the Bay Area Air Quality Management District (BAAQMD) for operation of the thermal oxidizer used to treat extracted soil vapor during the DPE remediation event.

TASK 10 - PERFORMANCE OF DPE REMEDIATION, START-UP PROCEDURE

During the 30-day DPE event, ASE and CalClean personnel completed the following tasks:

Pre-Test Activities

- Measured the distance from the extraction wells (Figure 2) to the selected observation wells (the remaining monitoring wells at the site) and recorded the measurements.
- Gauged the depth to water in the extraction and observation wells.
- Installed well seals in each observation well to prevent atmospheric short-circuiting during the test. Well seals consisted of a labcock sample port equipped with a butterfly valve. The well seal was installed and an air compressor was attached to the sample port with a hose. The well casing was pressurized using the air compressor to approximately 25 pounds per square inch (psi). Using the pressure gauge attached to the well seal, the technician observed the time and pressure drop and recorded the information. Well seals were pressure tested before and after completion of the pilot test to ensure proper transmitting of airflow and to check for changes in seal integrity.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

- Performed a visual observation of the pavement surface in the vicinity of the extraction and observation wells and identified any significant cracks or unsealed penetrations and recorded observations, none identified. Visually checked the well head conditions and well seals for any apparent lack of integrity and recorded observations, none observed. In addition, the technician recorded pertinent local weather data that could account for possible changes in soil gas pressure in the vadose zone.
- Determined the sequence of monitoring for observation wells in the well field.
- The DPE drop tube was measured and marked with permanent ink at 5, 10, 15, 20, and 25 feet intervals. Noted and recorded the starting depth of the drop tube (which was 3-feet below the starting water level) on Field Data Sheets.
- Prior to startup, placed the well seals on the observation wells, closed the labcock valves, and measured the observation wellhead vacuum (in H₂O) and repeated the measurements every 15 minutes during the step test.
- Turned on the vacuum pump at low vacuum (1 to 5 inches Hg) and observed and recorded the airflow rates (scfm) at the extraction wellhead, well casing seal, and DPE manifold using a hot wire anemometer or other flow instruments. Recorded time on Field Data Sheets.
- Collected an initial influent vapor sample from the extraction well. The influent vapor samples were submitted to a CAL DHS laboratory under chain-of-custody documentation for analysis of TPH-G, BTEX, and fuel oxygenates by EPA Method 8260B.
- Measured influent vapor concentration (parts per million by volume [ppmv]) using a Horiba PID meter every 15 minutes during the step test and recorded the time on the Field Data Sheets.
- Measured groundwater extraction rates by measuring the rise of groundwater in the sight glass on the knockout tank DPE unit.

Repeated the procedure above for mid-range vacuum (5 to 7 inches Hg) and again at maximum vacuum (10 inches Hg or higher) for the time intervals noted above. During the DPE remediation event, the drop tube was raised to the starting depth (which was 3-feet below the starting water level) at the beginning of each step. Using the data from the initial start-up procedure detailed above, mass removal activities commenced.

TASKS 11 to 16 - EXTENDED PERIOD DPE INTERIM REMEDIATION EVENT (30 DAYS TOTAL)

- Turned on CalClean DPE system vacuum pump to optimum vacuum (Figure 8). Observed and recorded vapor flow rates (scfm) using a hot wire anemometer at the



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

extraction wellheads and manifold. Repeated flow and vacuum measurements every 30 minutes and recorded information on Field Data Sheets.

- Measured influent vapor concentration in ppmv using a PID every 30 minutes.
- Continued to optimize operating parameters as the DPE interim remediation event proceeded. This task occurred continuously until the event was completed. Field personnel worked in 12-hour shifts so that the equipment was manned at all times.
- Changed extraction wells as needed based on PID field measurements.
- Collected influent vapor samples using Tedlar bags at the conclusion of the DPE remediation event.
- Continuously treated extracted hydrocarbon vapors with the truck-mounted thermal oxidizer unit.
- Continuously treated extracted groundwater with the truck-mounted activated carbon units. Sampled groundwater in batches to determine its suitability for discharge down the EBMUD sanitary sewer.
- At the conclusion of the DPE event, well seals were pressure tested again to check for changes in seal integrity. Compared results to pre-test seal pressures.

TASKS 17 & 18 - SAMPLE COLLECTION AND ANALYSIS

Field measurements of influent vapor concentration in ppmv were obtained periodically using a Horiba PID meter throughout the DPE interim remediation event and recorded the data on the Field Data Sheet. This tool was used to determine at which point in time the DPE equipment should be switched from one extraction well to the next.

Soil vapor samples were collected during the DPE remediation event in laboratory supplied Tedlar bags. All samples were labeled with the sample ID and location, date and time, and name of sampler. The vapor samples were stored at ambient temperature in a cooler that protects the samples from direct sunlight. The samples were shipped to the laboratory under chain-of-custody documentation immediately and analyzed on a standard turn-around-time. Selected vapor samples were analyzed by a state-certified laboratory for TPH-G, BTEX and MTBE by EPA Method 8260B. Numerous vapor samples were collected and analyzed during the 30-day event. Please refer to the CalClean report in Appendix C for the tabulated analytical data and certified analytical reports.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

TASKS 19 & 20 - FIELD DATA ANALYSIS AND REPORTING

Field data collected during the DPE remediation event included applied vacuum, air-flow rates, soil pressures, offgas moisture levels and amount of moisture, and effluent contaminant concentrations.

The tabulated data collected during the DPE remediation event was used to generate the following plots/diagrams:

- Soil vapor cumulative removal rate versus time;
- Influent vapor concentrations versus time;
- System flow diagram and description of system used for the DPE pilot test and the DPE interim remediation event
- applied vacuum and flow rate data versus time; and
- effluent vapor concentration data versus time.

CalClean has prepared a report detailing the effectiveness of the DPE interim remediation event. The CalClean report is attached in Appendix C. The following is an excerpt of the final report. Please note, areas within the CalClean report refers to extraction well EW-6; this is actually monitoring well MW-4R.

From August 3 to September 4, 2009, CalClean performed a 32-day high vacuum dual phase extraction (HVDPE) event on several onsite and offsite wells using a low-noise, truck-mounted 450-CFM high-vacuum liquid ring blower along with a Bay Area Air Quality Management District (BAAQMD) various locations permitted propane-fired thermal oxidizer (Plant No. 12568). This technology allows hydrocarbons to be simultaneously removed from the vadose zone, capillary fringe, and saturated soil zone. A high vacuum was applied for vapor extraction and drawdown of the groundwater table around the extraction wells, while vacuum and vapor flow rates were modified to optimize recovery of vapor, free-product (if any) and dissolved-phase hydrocarbons.

During the event, the high vacuum dual phase extraction (HVDPE) system was simultaneously connected to wells EW-1, EW-2, EW-3, EW-4, EW-5, EW-6 (renamed MW-4R), IW-5, and/or MW-3. During the day, the extraction system was connected to wells on the property and on the east side of 8th Street. Each night, whenever parking space was available, the extraction system was physically transported to the west side of 8th Street and extraction was conducted in well EW-6 (renamed MW-4R) from approximately 10 p.m. till 5 a.m. the next morning. HVDPE activities were conducted for a total of 32 days during the HVDPE event.

Vapor samples were collected in Tedlar bags from each extraction well during the event. The laboratory results, listed in Table 1 and laboratory reports included in Attachment 1, indicate the following:



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

- *The starting Total Petroleum Hydrocarbons as Gasoline (TPH-G) vapor concentrations for wells EW-1, EW-2, EW-3, EW-4, EW-5, EW-6 (renamed MW-4R), IW-5 and MW-3 were 452 ppmv, 131 ppmv, 586 ppmv, 13 ppmv, 70 ppmv, 6,440 ppmv, 5,830 ppmv, and 6,580 ppmv, respectively.*
- *The ending TPH-G vapor concentrations were 4,560 ppmv, 463 ppmv, 3,080 ppmv, 640 ppmv, 2,220 ppmv, 8,690 ppmv, 5,910 ppmv, and 6,240 ppmv, respectively. The starting and ending combined well TPH-G vapor concentrations were 7,760 ppmv and 4,540 ppmv, respectively.*
- *The starting Benzene vapor concentrations for wells EW-1, EW-2, EW-3, EW-4, EW-5, EW-6 (renamed MW-4R), IW-5 and MW-3 were 16 ppmv, 14 ppmv, 43 ppmv, 0.95 ppmv, 3.5 ppmv, 174 ppmv, 183 ppmv, and 197 ppmv, respectively.*
- *The ending Benzene vapor concentrations were 132 ppmv, 24 ppmv, 77 ppmv, 15 ppmv, 49 ppmv, 160 ppmv, 177 ppmv, and 157 ppmv, respectively. The starting and ending combined well Benzene vapor concentrations were 197 ppmv and 136 ppmv, respectively.*

The total equivalent amount of hydrocarbons recovered through vapor extraction during the 32-day HVDPE event was 16,106.37 pounds (2,578.05 gallons) based on the Horiba field organic vapor analyzer data. The cumulative tabulation of recovered hydrocarbons (based on the field organic vapor analyzer data) is provided in the CalClean report as Table 2.

The total volume of hydrocarbon-affected groundwater recovered from the extraction wells during the HVDPE event was approximately 234,070 gallons. The extracted water was treated through two 500-pound granular activated carbon vessels in series and then discharged periodically to the onsite sewer system in accordance with a permit from the East Bay Municipal Utility District.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

5.0 NEXT PHASE OF REMEDIATION

A long term remedial strategy is required to render the site suitable for eventual case closure from the ACHCSA and the RWQCB. Recent groundwater monitoring activities performed by ASE show that the shallow groundwater beneath and downgradient of the site still contain elevated concentrations of petroleum hydrocarbons, and free-floating hydrocarbons (in newly constructed monitoring well MW-4R).

ASE has employed the remedial strategy of ozone-sparging at two sites in Alameda County with very good results. The sites are in Hayward and Albany, and both sites are using treatment systems provided to ASE by H2O Engineering of San Luis Obispo, California. Ozone-sparging, along with the possibility of areas of soil vapor extraction would likely be very beneficial to the ultimate goal of case closure for this site.

The results of the CalClean 30-day DPE event confirmed (a) that elevated concentrations of petroleum hydrocarbons remain in the soil beneath and surrounding the former USTs; soil that was not overexcavated and hauled off-site, and (b) dissolved and free-floating hydrocarbons remain present in the groundwater on-site and downgradient of the former USTs. ASE's remedial strategy will employ one of two or both in-situ strategies to remediate the residual petroleum hydrocarbons existing in the soil and groundwater at and downgradient of the site, ozone-sparging and possibly soil vapor extraction.

6.0 OZONE SPARGING REMEDIATION DESCRIPTION

Ozone sparging is the process of adding an ozone/air mixture into a water-bearing zone contaminated with organic compounds. The ozone acts as an oxidant, which will destroy organic hydrocarbons. Ozone can oxidize contaminants either directly or through the formation of hydroxyl radicals. In situ decomposition of ozone can also lead to beneficial oxygenation and biostimulation. In addition, since a gas is injected, it may be possible for some remediation to also take place in the vadose zone as well.

6.1 Remediation System Design

6.1.1 Ozone-Sparging Wells

The proposed remediation system will incorporate the use of fourteen (14) ozone-sparge wells. The locations of these wells are shown on Figure 9. A cross-sectional view of a typical ozone sparging well is included as Figure 10. ASE is assuming a conservative radius of influence of 15-feet; ASE will perform an air-sparging test at the site to confirm this assumption. The wells will be located to destroy hydrocarbons surrounding and downgradient of the USTs.

The wells will be drilled with a drill rig equipped with 8-inch diameter hollow-stem augers. The wells will be constructed with 1-inch diameter schedule 80 PVC well casing. Ozone will be sparged from the casing through a 1.5-inch diameter by 18-inch long sparge point with a 25



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

micron pore size. These sparge points will be placed in the location of the permeable water-bearing zone approximately 26 to 27.5-feet bgs. Lonestar #2/16 or finer sand will be placed between the sparge point and the boring from the bottom of the boring to 1-foot above the top of the sparge point. A 0.5-foot thick bentonite layer will be placed between the sandpack and the overlying cement sanitary seal. A Portland cement sanitary seal will be placed above the bentonite layer to prevent surface water from infiltrating into the well. The wellheads will be piped directly into an ozone-sparging manifold, which will then be piped directly to the ozone generator.

6.1.2 Ozone Generator

The system will utilize an Ozone Sparge Unit manufactured by H2O Engineering. The unit model number is an OSU20-104 capable of an ozone output of 104 grams/hour at up to 6% by weight. The OSU20-104 is a compact unit that generates an air/ozone mixture on-site. The unit will then pump the air/ozone mixture through twelve ports one port at a time on a cycle set by a timer. The air/ozone flow is approximately 3 to 4 cubic feet per minute (cfm) at a pressure of 20 pounds per square inch (psi). Each sparge point will receive air for 10 minutes approximately 12 times per day. The cycle timing will be programmed and cycle duration adjusted as needed. The entire unit operates on 110-volt power. A diagram of the OSU20-104 unit is detailed on Figure 11.

6.1.3 Manifold System

The air/ozone mixture will be pumped through double contained ozone-resistant poly tubing from the OSU20-104 to the sparging wells. This tubing consists of a 1/2-inch diameter inner transport tubing within a 1-inch schedule 40 PVC secondary-containment tube. This tubing is flexible and will be buried through narrow trenches cut through the concrete surface. The tubing will be placed into the trenches, buried with sand and covered with concrete (Figure 12).

6.1.4 System Operation, Monitoring and Reporting

The system will operate continuously 24-hours a day, 7 days a week. The system will be checked daily for the first week of operation and weekly thereafter. During the first week of operation, dissolved oxygen will be measured in all site groundwater monitoring wells to verify that ozone is being distributed as designed. In addition to the scheduled quarterly groundwater monitoring at the site, ASE will also conduct interim groundwater sampling one month after system startup, 2 months after system startup and one sampling in the period between regularly scheduled quarterly monitoring periods approximately 4 months after system startup. Results of the interim sampling will be reported in the normal quarterly report and will be addressed in detail in a report to be completed after 6-months of operation.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

6.2 System Design Confirmation Pre-Test

6.2.1 System Design Confirmation Pre-Test

Prior to finalizing the layout/spacing of the proposed ozone-sparging wells, ASE will conduct an air-sparging test to accurately determine the radius of influence of the proposed ozone-sparging wells.

6.2.2 Well Installation for Air-Sparging Test

In order to conduct the air-sparging test, an air-sparging well will have to be installed at the site. The well will be located in an area where its influence can be measured in monitoring well MW-3, located 15-feet away and, injection well IW-5, located 25-feet away.

The “test” air-sparging well will be constructed identically to the wells detailed in Section 6.1.1 above.

6.2.3 Conduct an Air-Sparging Test

An air-sparging test will be conducted to determine the radius of influence for the proposed ozone-sparging wells. The air-sparging test will be conducted by injecting compressed air into the new ozone-sparging well at a rate of approximately 5 cubic feet per minute (cfm) and 50 pounds per square inch (psi). This flow and pressure are typical operating parameters of the H2O Engineering systems currently in use at two other ASE sites. Pressure and water levels in monitoring well MW-3 and injection well IW-5 will be monitored to determine whether there is any pressure increase in the vadose zone or mounding of the water table. The test will continue until pressures and water table elevations remain stable. Injected air pressure and volume will be adjusted to determine future design criteria of the ozone generating system.

An alternate test technique that may be used will be injecting a tracer gas, such as helium, into the air stream. A helium detector would then be used to measure the concentration of helium, if any, in the surrounding observation wells. The presence of helium in the surrounding wells will be an indication of the area of influence.

6.3 Data Compilation and System Design Verification

At the completion of the air-sparging test activities, ASE will be able to determine the actual radius-of-influence of the proposed ozone-sparging wells. The data from the test will be used to verify the planned system design, and/or make adjustments to the spacing and placement of the proposed ozone-sparging wells. This data will also be sent to H2O Engineering for their use in final design modifications, if necessary, to the actual ozone-generating system that will be used at the site.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

7.0 VAPOR-EXTRACTION REMEDIATION SYSTEM

ASE believes that ozone will likely flow in an upwards direction through the water-bearing zone and into the smear-zone and vadose zone that has been shown to still contain elevated concentrations of petroleum hydrocarbons, most notably in the area beneath the former USTs in former excavation 1. Along with destroying dissolved hydrocarbons in the water-bearing zone, ozone will also follow the path of least resistance and likely find its way into the soil that could not be remediated during the overexcavation activities many years ago. Ozone will likely find its way up into the vadose zone and remediate the residual petroleum hydrocarbons in the smear zone.

In the event that ozone-sparging is not completely successful at remediating the residual hydrocarbons in the soil just above the water-bearing zone, ASE will employ vapor-extraction technology to assist in removal of the vadose-zone hydrocarbons.

7.1 Evaluation of Vadose-Zone in Area of Former USTs

ASE will allow the ozone-sparging remediation system to operate for a period of 6 months. At the completion of the six month period ASE will evaluate the vapor concentrations in the area of the former USTs using soil gas concentrations from the extraction wells EW-1, EW-3, and EW-5 that were installed for the DPE event conducted in August and September 2009.

Using ASE's BAAQMD approved, trailer mounted DPE equipment, ASE personnel will connect a rotron blower to each of the three extraction wells, one at a time for a period of three hours each. The extracted hydrocarbon vapors will be piped to 4 – 250 pound activated carbon vessels, plumbed in parallel, to destroy the hydrocarbon-laden vapors prior to discharge to the atmosphere. Periodic in-field measurements of the influent and effluent vapor stream will be conducted using a hand-held PID. At the completion of the three hour extraction event on each well, ASE personnel will collect an influent vapor sample in a laboratory supplied tedlar bag. The samples will be labeled with the sample ID and location, date and time, and name of sampler. The vapor samples will be stored at ambient temperature in a cooler that protects the samples from direct sunlight. The samples will be shipped to a CAL-EPA certified laboratory under chain-of-custody documentation immediately and analyzed on a standard turn-around-time. The vapor samples will be analyzed for TPH-G, BTEX and MTBE by EPA Method 8260B.

The results will then be compared to the results obtained from these wells by CalClean during their DPE event in August and September 2009. Should the vapor concentrations be significantly less than the 2009 results, ASE will assume that the ozone-sparging remediation system is affecting the vadose zone, and further vapor extraction remediation will not be considered prudent. In the event that the concentrations of hydrocarbons appear equal to or greater than the 2009 results, then ASE will recommend to the ACHCSA and the USTCF that vapor extraction remediation should be performed in concert with the ozone-sparging remediation system. ASE would complete the following tasks should vapor-extraction remediation be necessary.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

7.2 Vapor Extraction System Components

7.2.1 Vapor Extraction Wells

The vapor-extraction system will use the five existing 4-inch extraction wells (EW-1 thru EW-5, to be re-named VEW-1 thru VEW-5), see Figure 13. ASE realizes that these wells are screened into the water table, however, they are also screened into the vadose-zone which will allow for vapor extraction in the capillary zone.

7.2.2 Vapor Extraction Well Piping and Manifold

Underground piping will be used to deliver the precise vacuum and flow rate to each vapor-extraction well. The piping will be entrenched in a subsurface, 18-inch deep trench, and will consist of 2-inch diameter, schedule 40 PVC. The piping from each well will terminate above-ground in a central location of the site, and will be piped together into a manifold. The vapor-extraction well manifold will be plumbed with valves, flow gauges, and sample ports to precisely control the vacuum source to achieve equilibrium across the zone being remediated (Figure 14). The vacuum source flow-rate will be designed and maintained to remove 1.5 times the volume of air injected by the ozone-sparging system.

7.2.3 Vapor Extraction Remediation System Components

ASE will likely rent a skid-mounted system from a local vendor when the time comes for active vapor-extraction remediation. The system will likely incorporate (a) a 7.5-horsepower regenerative blower to achieve up to 150 cfm of flow and up to 60-inches of water vacuum to the manifold, (b) a moisture knock-out device, and (c) an abatement device to remove the hydrocarbons from the influent air stream (Figure 14). Based on the analytical results of the Tedlar air bag samples collected during the recent CalClean DPE event, ASE has determined that catalytic oxidation will be a cost-effective and efficient method to treat the hydrocarbon vapors in the influent air stream.

The catalytic oxidation unit operates by heating the influent air stream to a temperature of approximately 700 degrees Fahrenheit using an electric heater and heat exchanger. The unit includes influent and effluent sample ports, a chart recorder to track flow, temperature, and vacuum components, a UL classified control panel, and is fully automated with five separate safety interlocks. The system has a destruction efficiency of 99%.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

The following activities related to in-situ vapor-extraction remediation will be completed during this phase of site work since construction activities will already be occurring at the site for the ozone-sparging system install:

- The modification of the extraction well heads to vapor-extraction wells heads. See Figure 14 for a detail.
- The installation of the underground delivery piping, consisting of 2-inch schedule 40 PVC piping. See Figure 14 for details.
- The construction of the piping manifold with valves and sample ports. See Figure 14 for details.

The remediation equipment (blower and catalytic oxidizer), and its power source will not be provided during this phase of the site work. In the event that it is determined that the ozone-sparging system is unable to adequately remediate both the groundwater and vadose-zone hydrocarbons, ASE will then install the remediation equipment and power supply. At the time it appears necessary, ASE will rent the remediation equipment from a local supplier that can also provide the necessary Bay Area Air Quality Management District permits to allow for the system's use. ASE will notify the ACHCSA prior to the deployment of the vapor-extraction equipment.

8.0 PERMITS

The following permits will be required to complete this project:

- Permits to install the ozone-sparge wells will be obtained from the Alameda County Public Works Department. Encroachment and excavation permits will also be required from the City of Oakland.
- Construction permits ie.: grading, trenching, resurfacing, plumbing, electrical, and mechanical permits will be obtained from the City of Oakland as necessary.
- A Bay Area Air Quality Management District permit will be required in the event that a vapor-extraction system is used at the site. ASE plans on renting such a piece of equipment that comes with a statewide BAAQMD permit.



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

9.0 SCHEDULE OF ACTIVITIES

Upon receipt of approval of this RAP, ASE will prepare a bid document to be used to gain acceptable bids for the subcontracted items within this plan. Once the pricing is obtained, ASE will request pre-approval of the costs from the Underground Storage Tank Cleanup Fund (USTCF). Permitting and field activities will begin immediately upon receipt of pre-approval from the USTCF.

ASE would like to thank you in advance for your assistance and prompt attention to this matter. Please feel free to call us if you have any questions or comments.

Sincerely,

Aqua Science Engineers, Inc.



David Allen, R.E.A.
Vice President



Robert Kitay, P.G., R.E.A.
Senior Geologist

cc: Responsible Party Representative, Mr. Russell Lim, 3111 Diablo Road, Lafayette, CA 94549

Mr. Jerry Wickham, ACHCSA

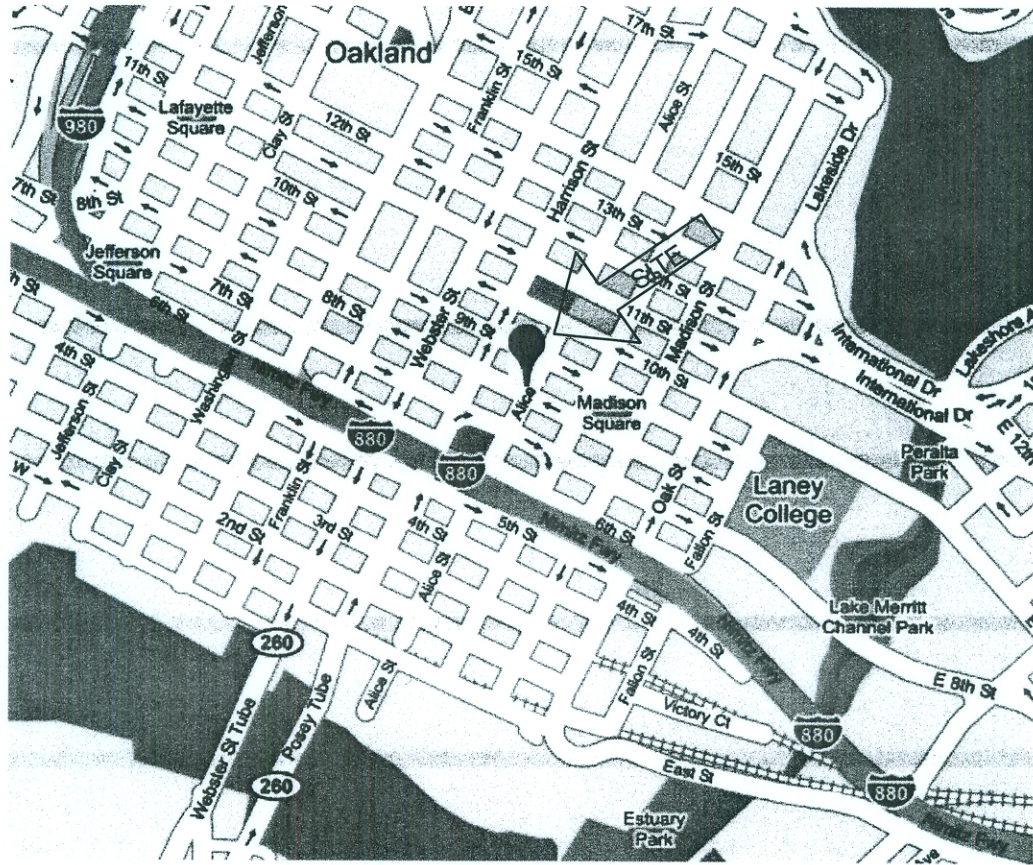


Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

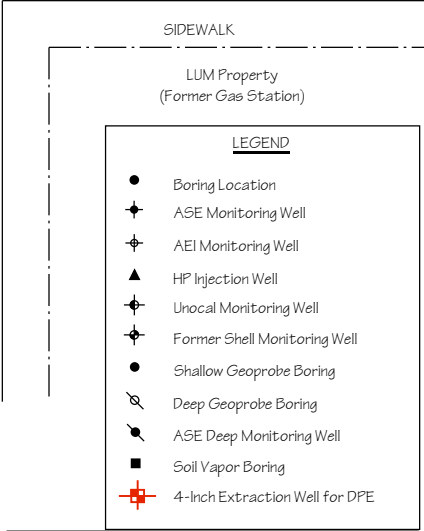
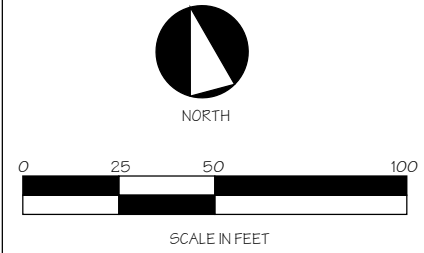
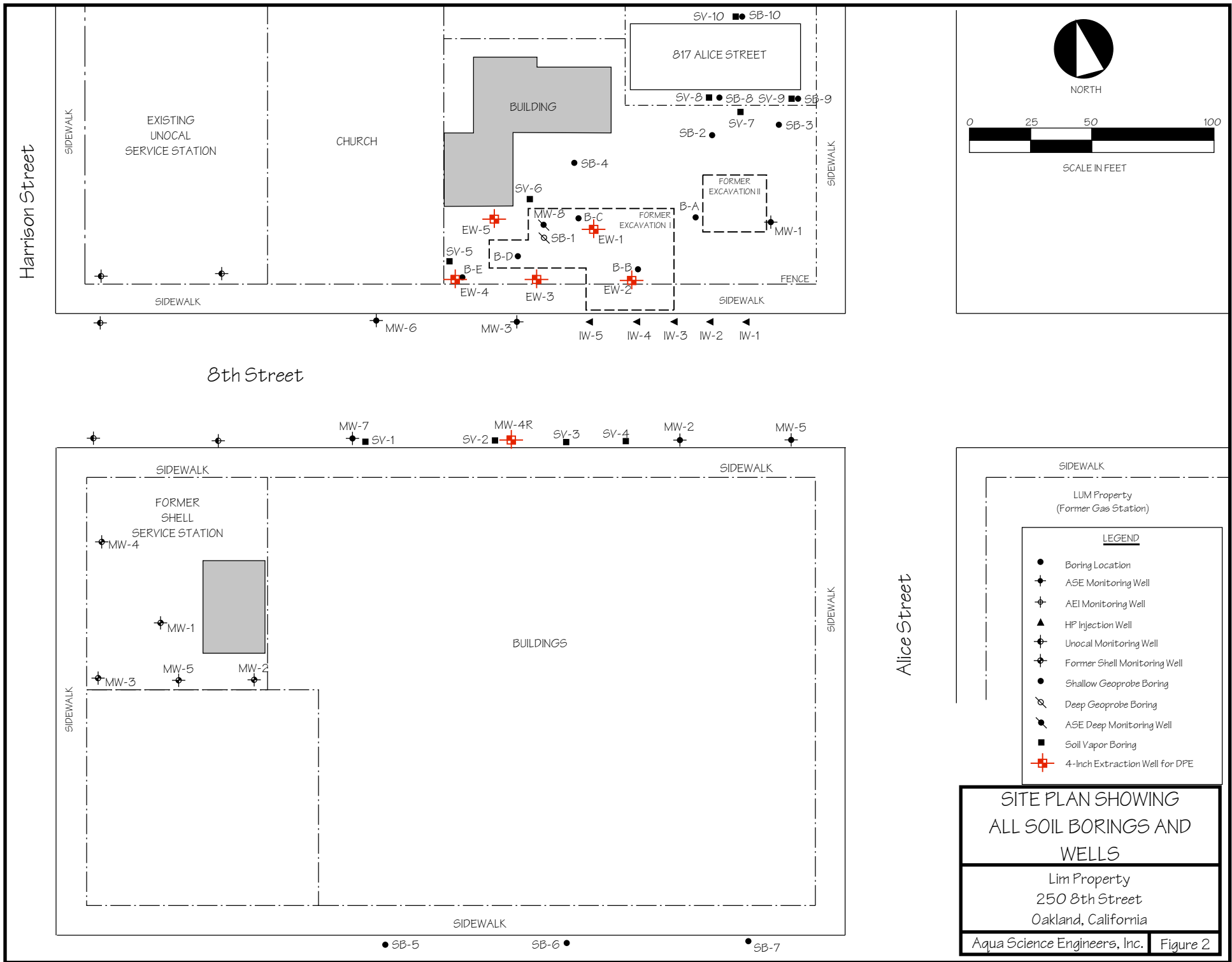
FIGURES



NORTH



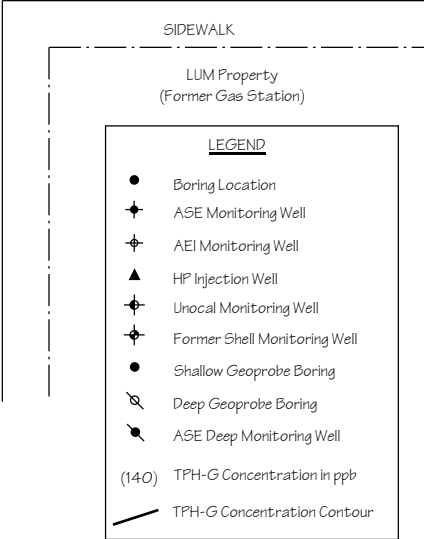
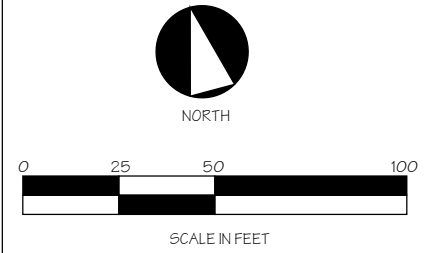
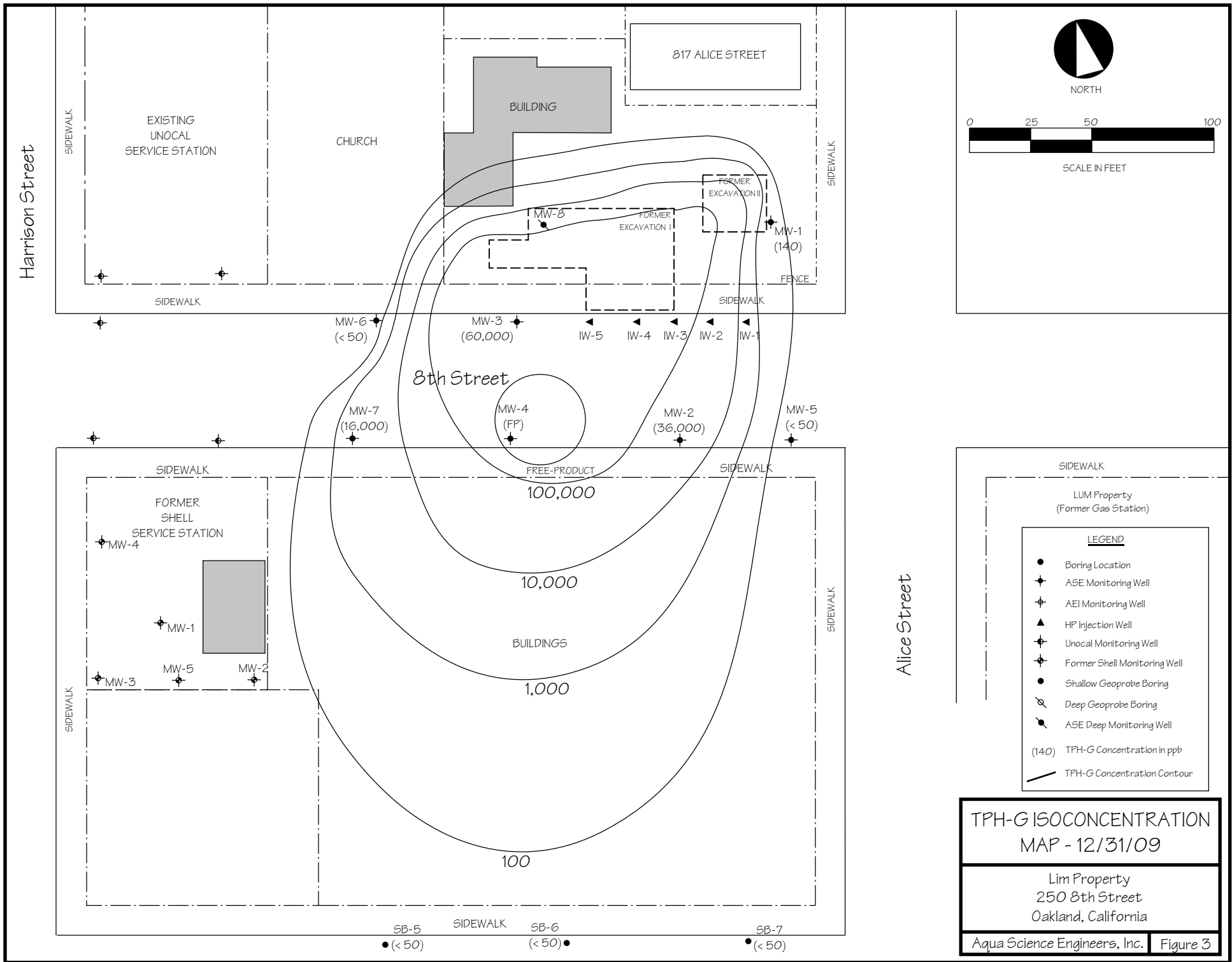
LOCATION MAP	
LIM PROPERTY 250 8 TH STREET OAKLAND, CALIFORNIA	
AQUA SCIENCE ENGINEERS	FIGURE 1



SITE PLAN SHOWING ALL SOIL BORINGS AND WELLS

Lim Property
250 8th Street
Oakland, California

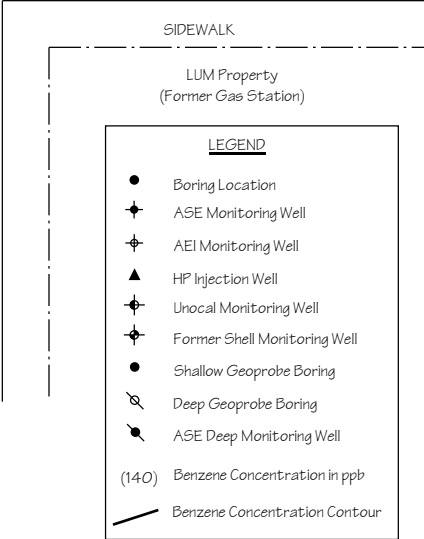
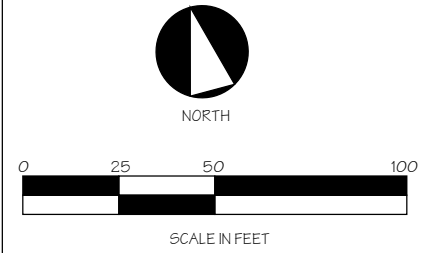
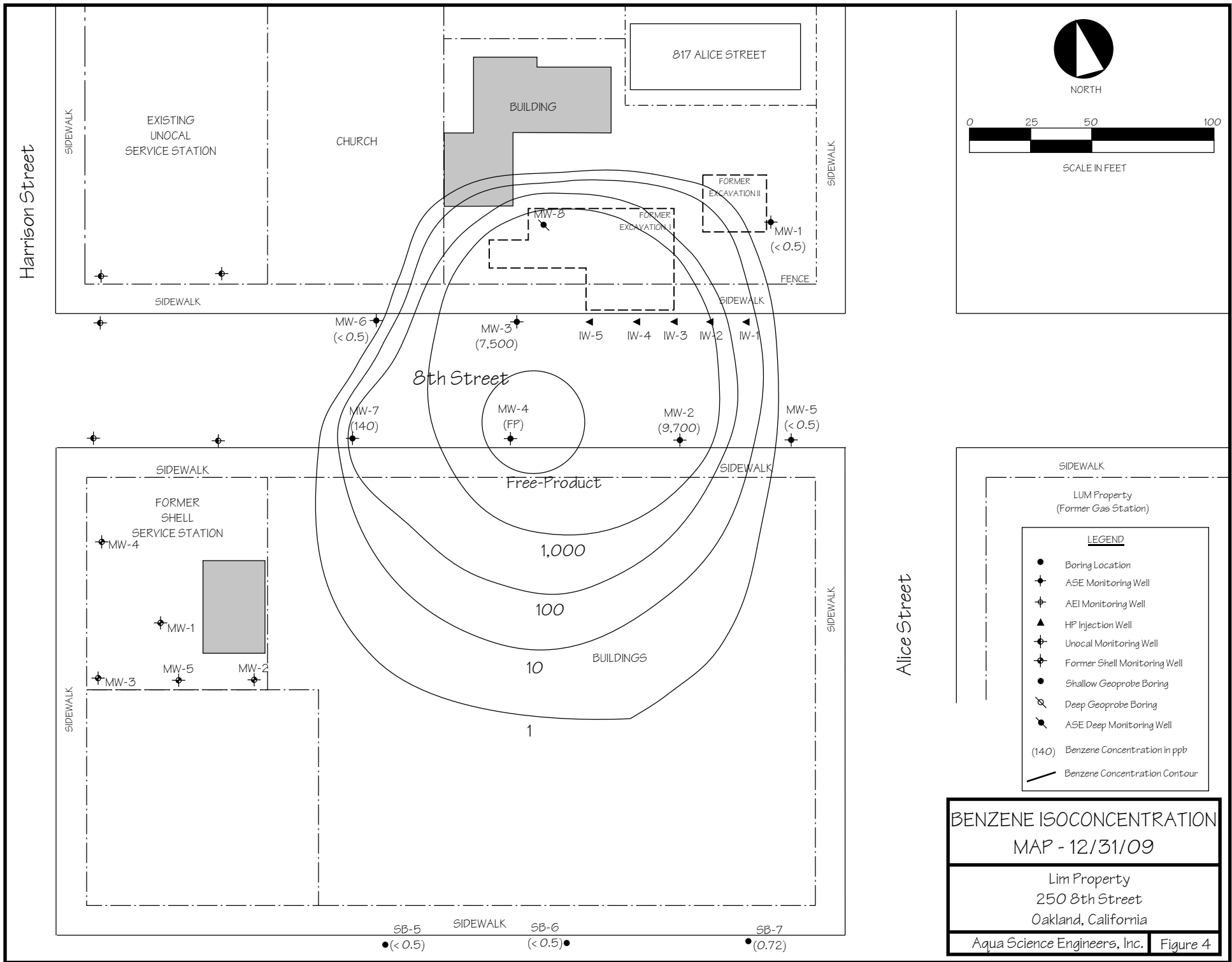
Aqua Science Engineers, Inc. Figure 2



TPH-G ISOCONCENTRATION MAP - 12/31/09

Lim Property
250 8th Street
Oakland, California

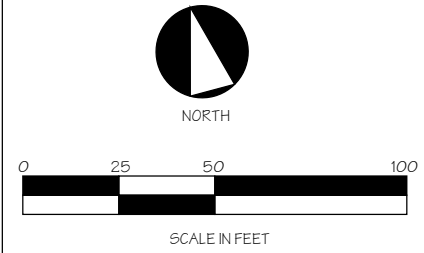
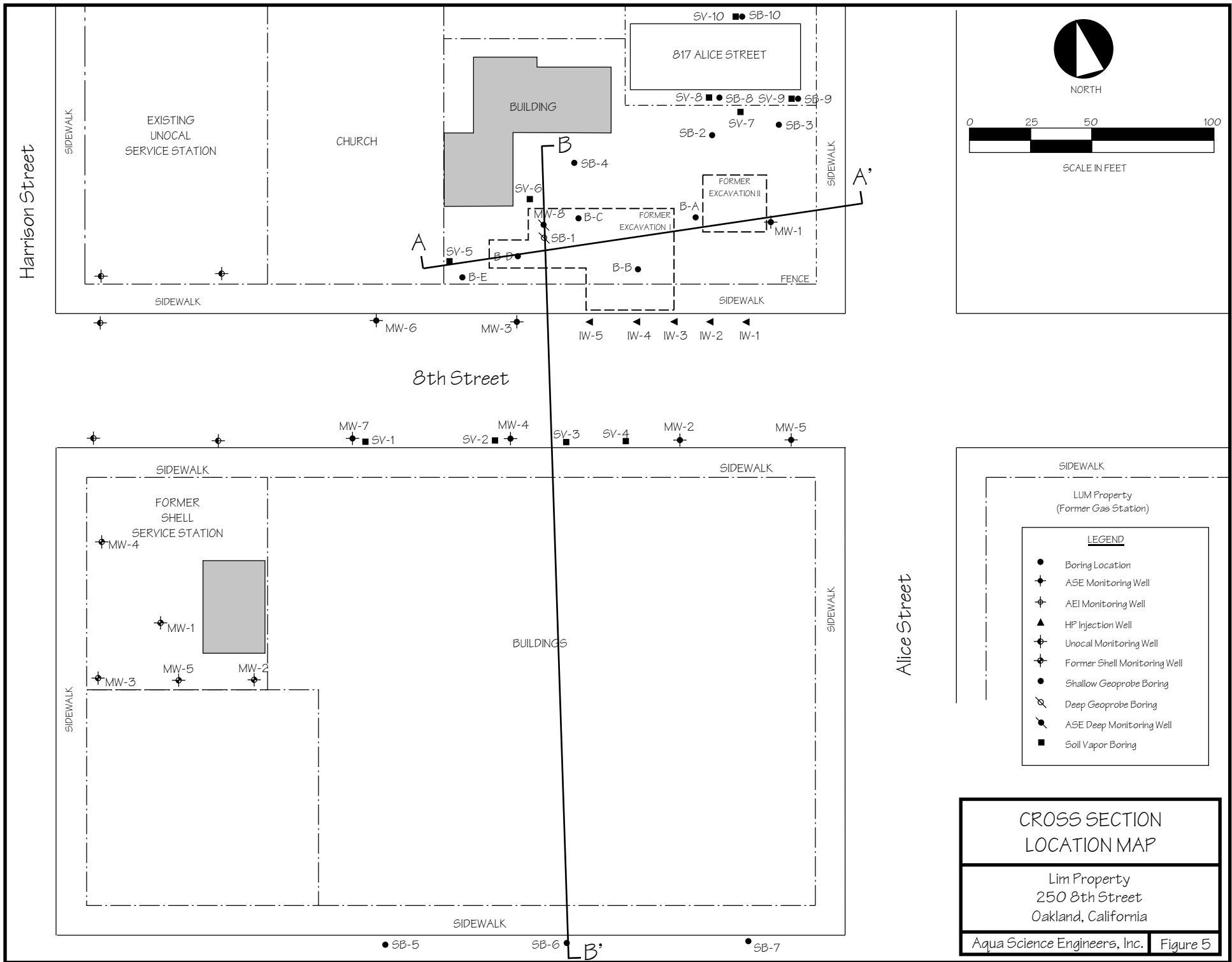
Aqua Science Engineers, Inc. Figure 3



BENZENE ISOCONCENTRATION MAP - 12/31/09

Lim Property
250 8th Street
Oakland, California

Aqua Science Engineers, Inc. Figure 4



SIDEWALK

LUM Property
(Former Gas Station)

LEGEND

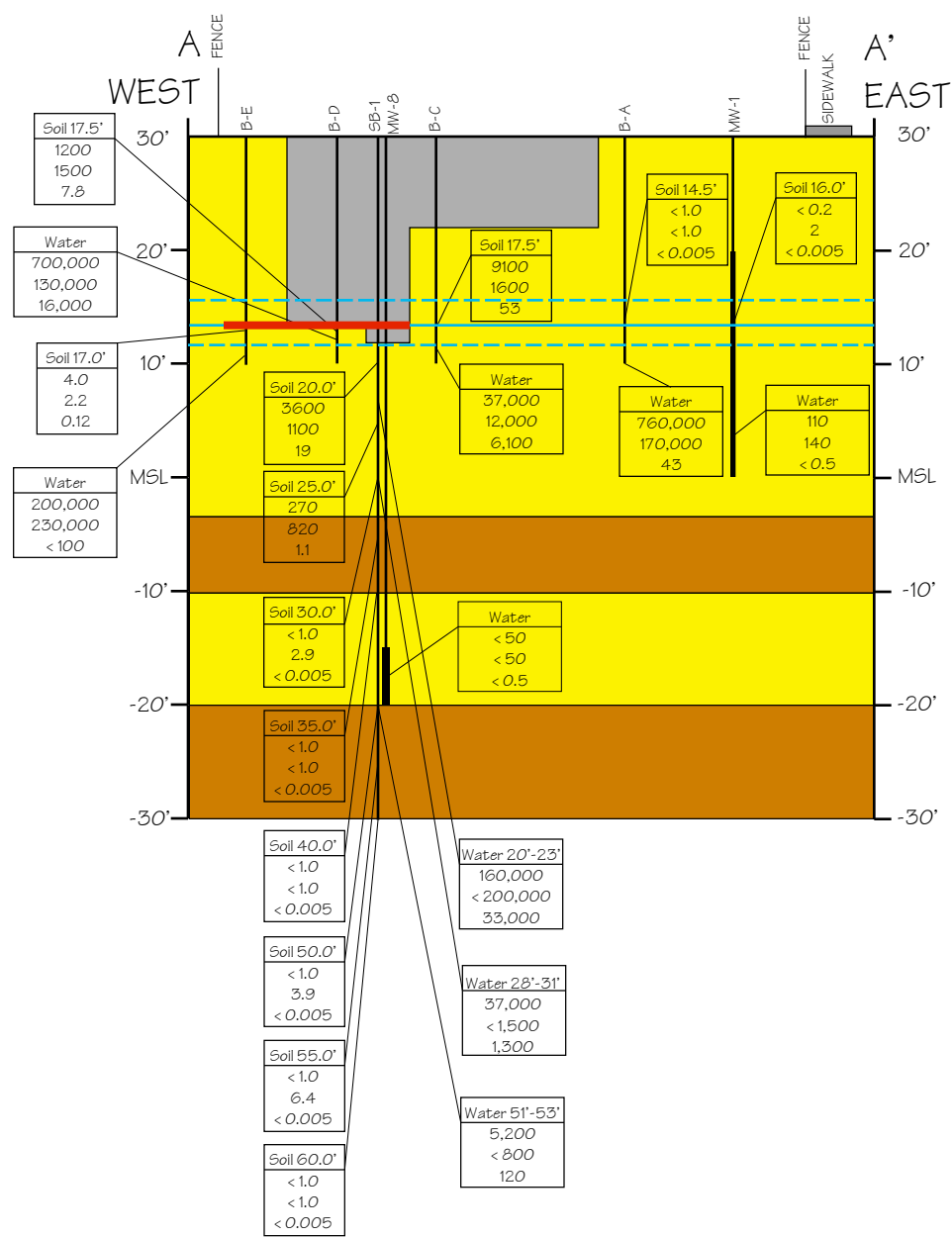
- Boring Location
- ⊕ ASE Monitoring Well
- ⊕ AEI Monitoring Well
- ▲ HP Injection Well
- ⊕ Unocal Monitoring Well
- ⊕ Former Shell Monitoring Well
- Shallow Geoprobe Boring
- ⊕ Deep Geoprobe Boring
- ⊕ ASE Deep Monitoring Well
- Soil Vapor Boring

SIDEWALK

CROSS SECTION
LOCATION MAP

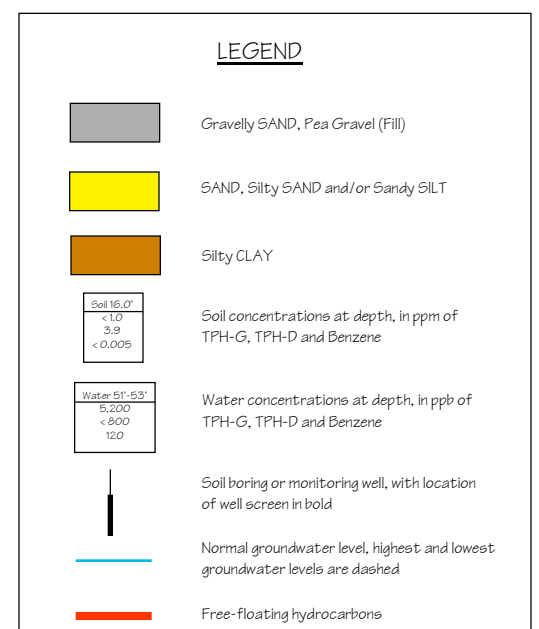
Lim Property
250 8th Street
Oakland, California

Aqua Science Engineers, Inc. Figure 5



HORIZONTAL SCALE IN FEET

VERTICAL EXAGGERATION: 3X



**GEOLOGIC
CROSS-SECTION
A-A'**

Lim Property
250 8th Street
Oakland, California

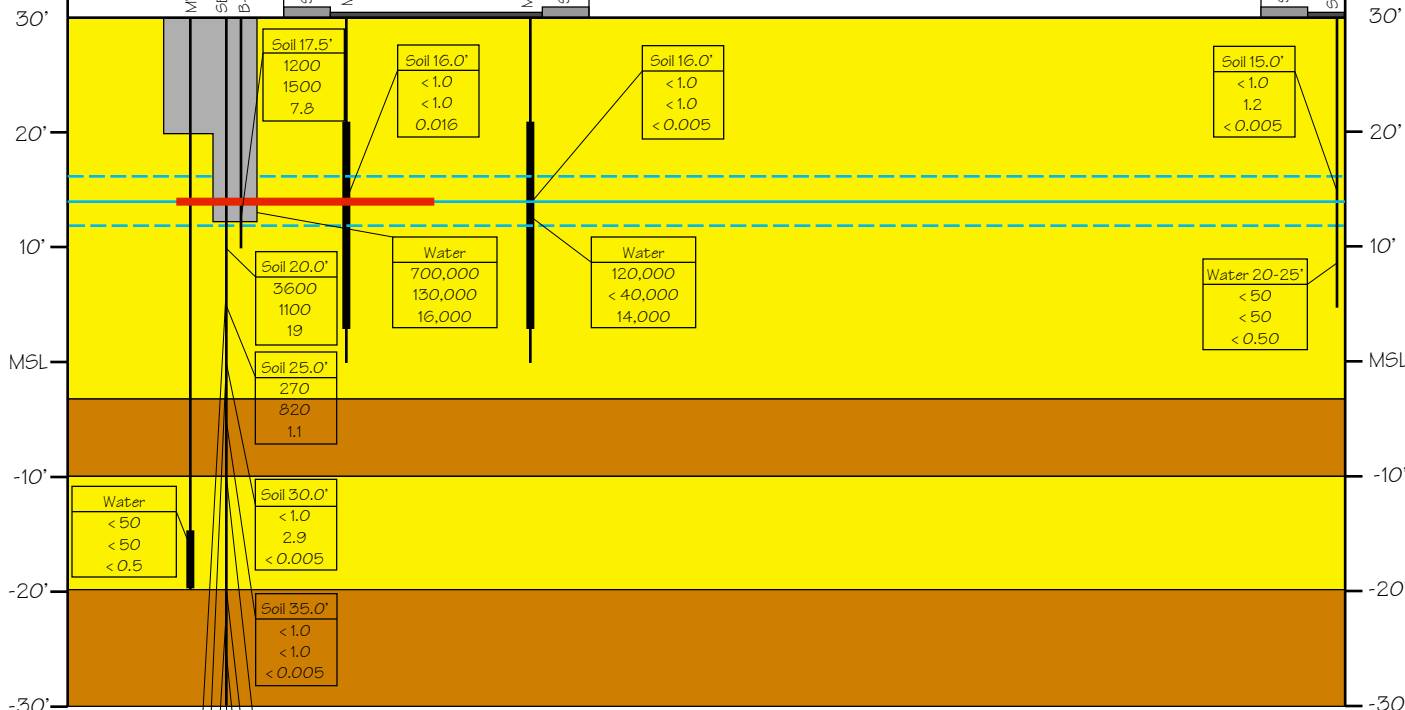
Aqua Science Engineers, Inc. Figure 6

B
NORTH

B'
SOUTH

BUILDINGS

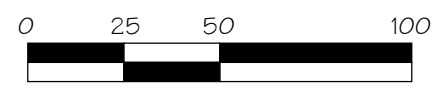
8th Street



Water 20'-23'	Soil 40.0'
160,000	< 1.0
< 200,000	< 1.0
33,000	< 0.005
Water 28'-31'	Soil 50.0'
37,000	< 1.0
< 1,500	3.9
1,300	< 0.005
Water 51'-53'	Soil 55.0'
5,200	< 1.0
< 800	6.4
120	< 0.005
	Soil 60.0'
	< 1.0
	< 1.0
	< 0.005

LEGEND

- Gravelly SAND, Pea Gravel (Fill)
- SAND, Silty SAND and/or Sandy SILT
- Silty CLAY
- Soil concentrations at depth, in ppm of TPH-G, TPH-D and Benzene
- Water concentrations at depth, in ppb of TPH-G, TPH-D and Benzene
- Soil boring or monitoring well, with location of well screen in bold
- Normal groundwater level, highest and lowest groundwater levels are dashed
- Free-floating hydrocarbons



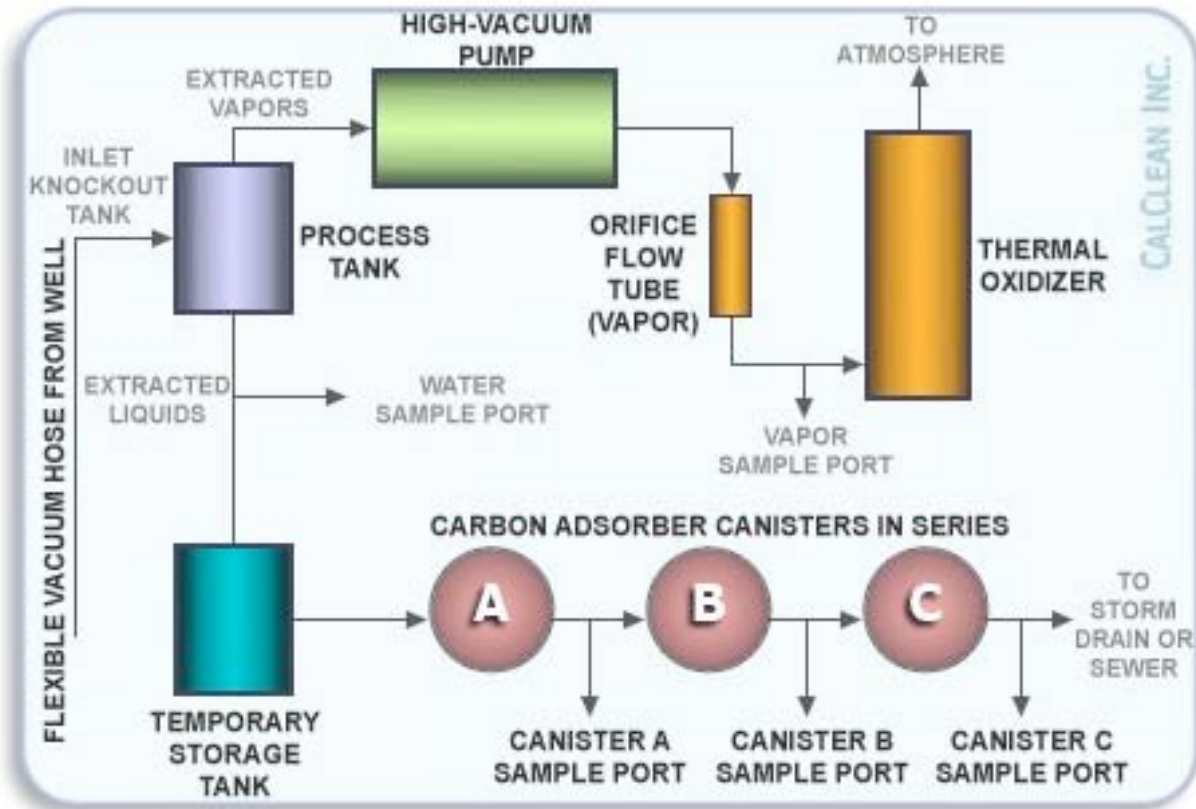
HORIZONTAL SCALE IN FEET

VERTICAL EXAGGERATION: 3X

**GEOLOGIC
CROSS-SECTION
B-B'**

Lim Property
250 8th Street
Oakland, California

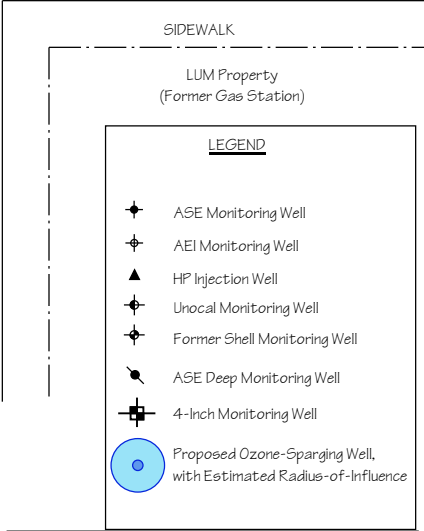
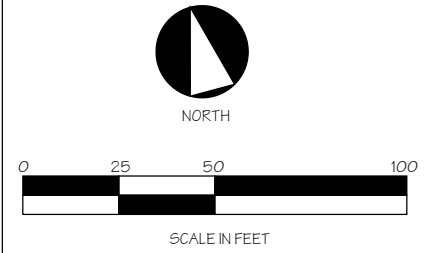
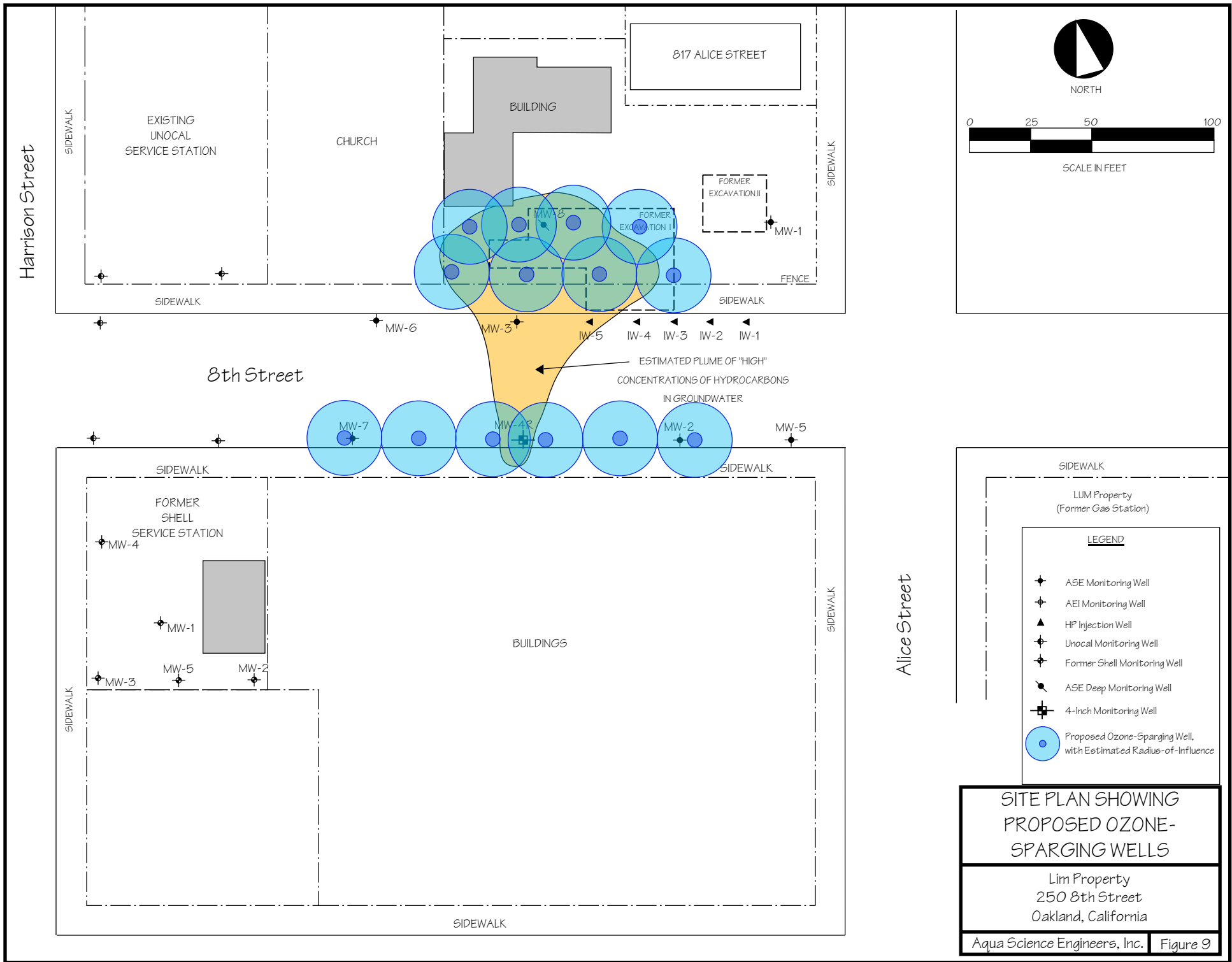
Aqua Science Engineers, Inc.	Figure 7
------------------------------	----------



CALCLEAN
 DUAL PHASE EXTRACTION SYSTEM
 FLOW DIAGRAM

AQUA SCIENCE ENGINEERS

FIGURE 8

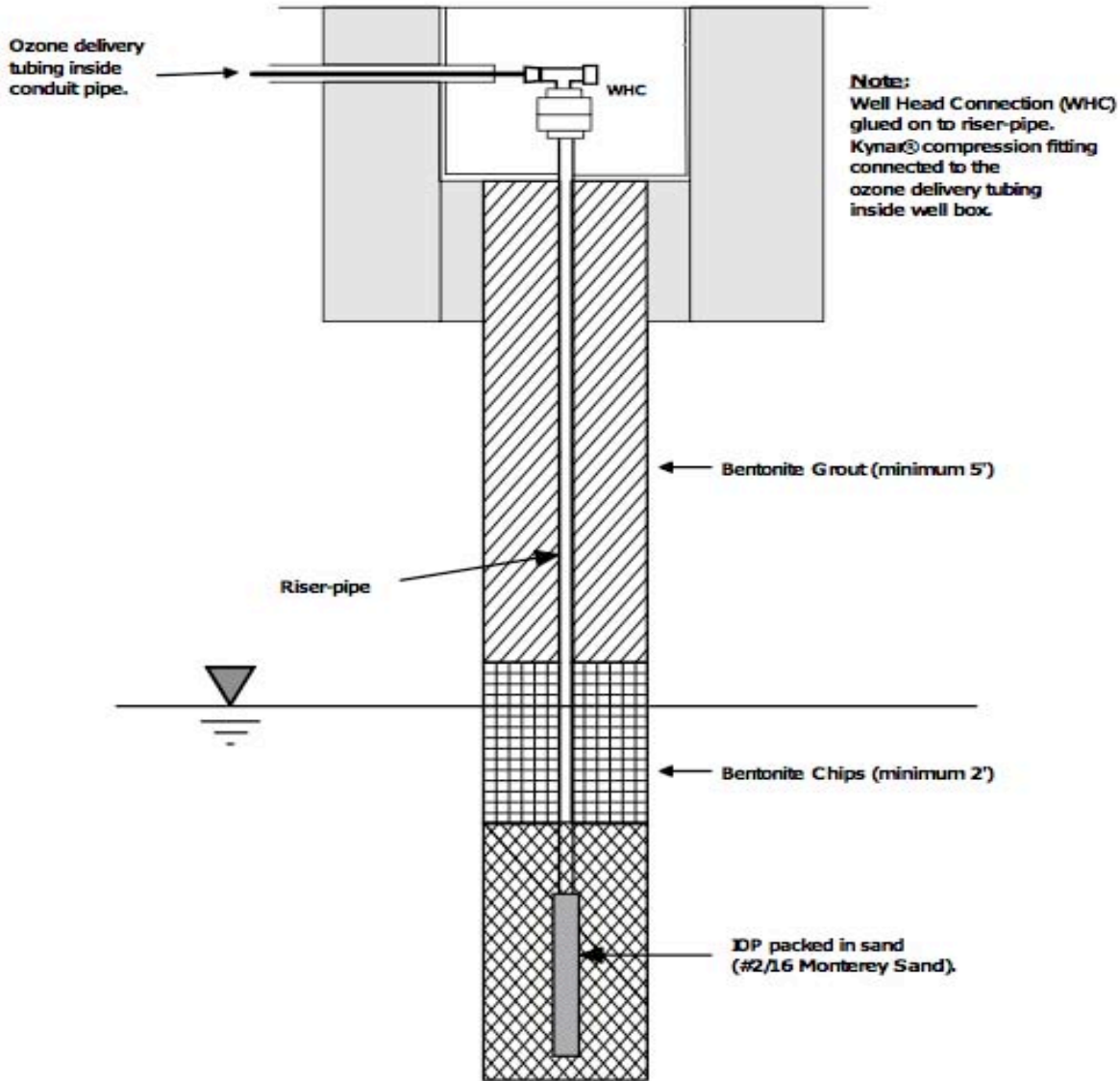


**SITE PLAN SHOWING
PROPOSED OZONE-
SPARGING WELLS**

Lim Property
250 8th Street
Oakland, California

Aqua Science Engineers, Inc. Figure 9

In Situ Oxidation Point (IOP) Sparge Well Installation Diagram



*This is a typical sparge well installation. Please check your state and local requirements for an engineering standard sparge well construction. California Department of Water Resources Bulletin No. 74-81 and 74-90: "Water Well Standards: State of California"

** This information is confidential, proprietary and/or privileged material. Any unauthorized review, distribution or other use of or the taking of any action in reliance upon this information is prohibited.

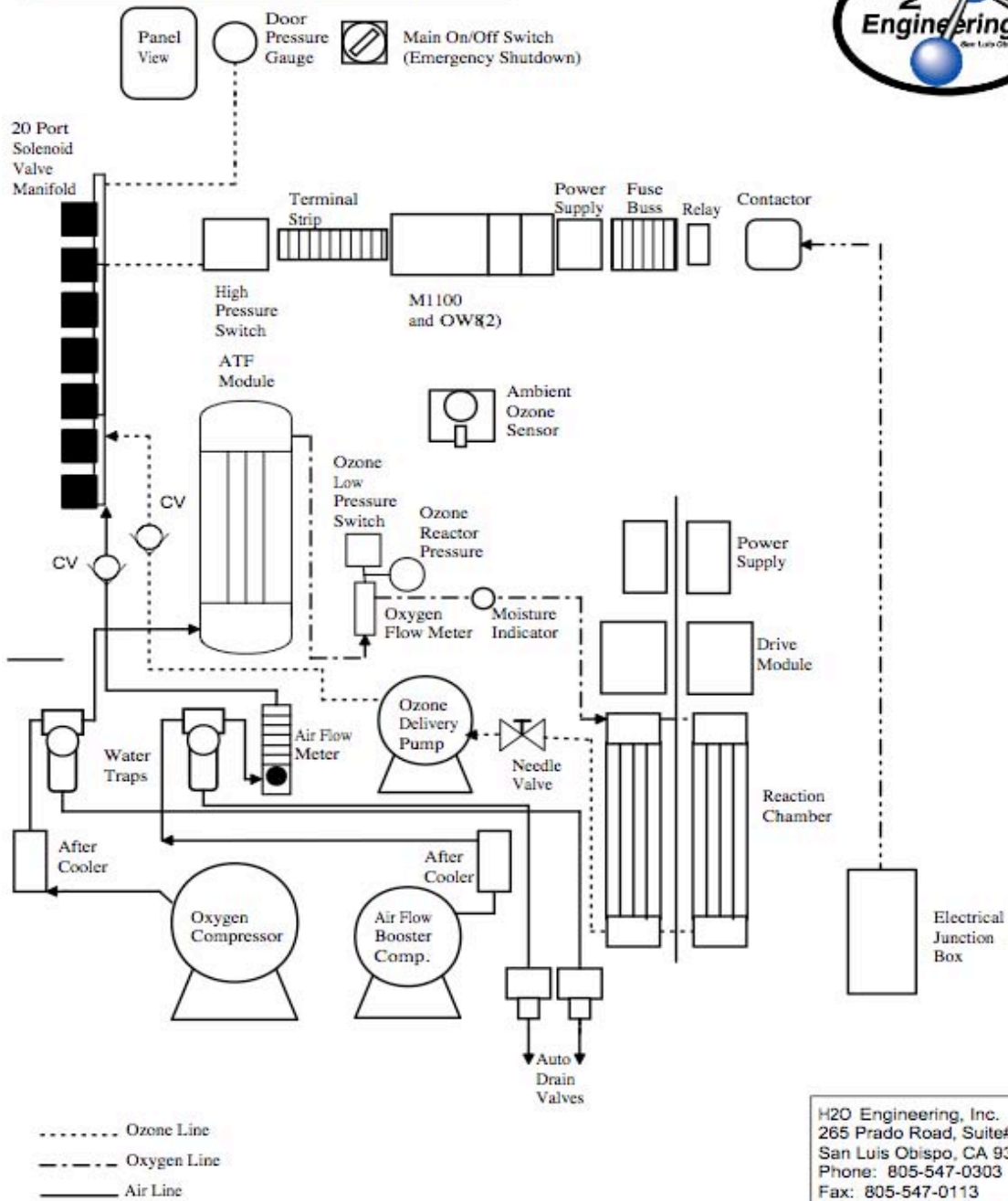
H₂O Engineering, Inc
265 Prado Road, Suite #1
San Luis Obispo, CA 93401
805-547-0303
805-547-0113 Fax
www.h2oengineering.com



TYPICAL OZONE-SPARGE
WELL CONSTRUCTION
IN CROSS SECTION

AQUA SCIENCE ENGINEERS

FIGURE 10

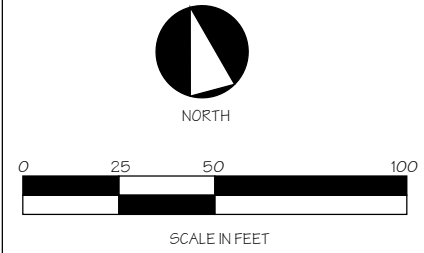
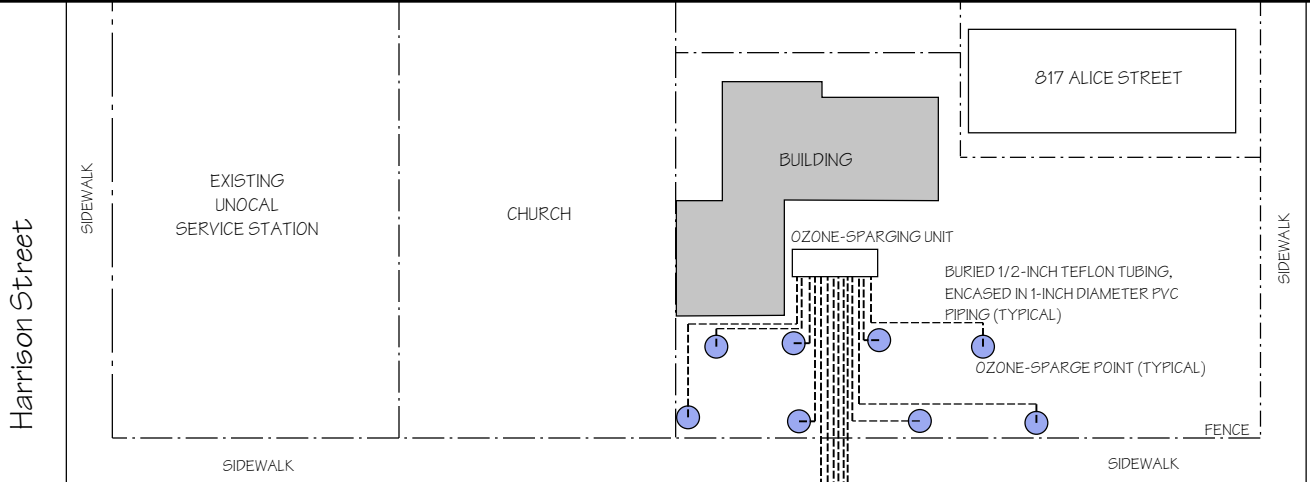


Property of H2O Engineering, Inc. Not to be Duplicated or distributed. 4/1/2004

TYPICAL OZONE-SPARGE
 REMEDIATION UNIT
 SCHEMATIC

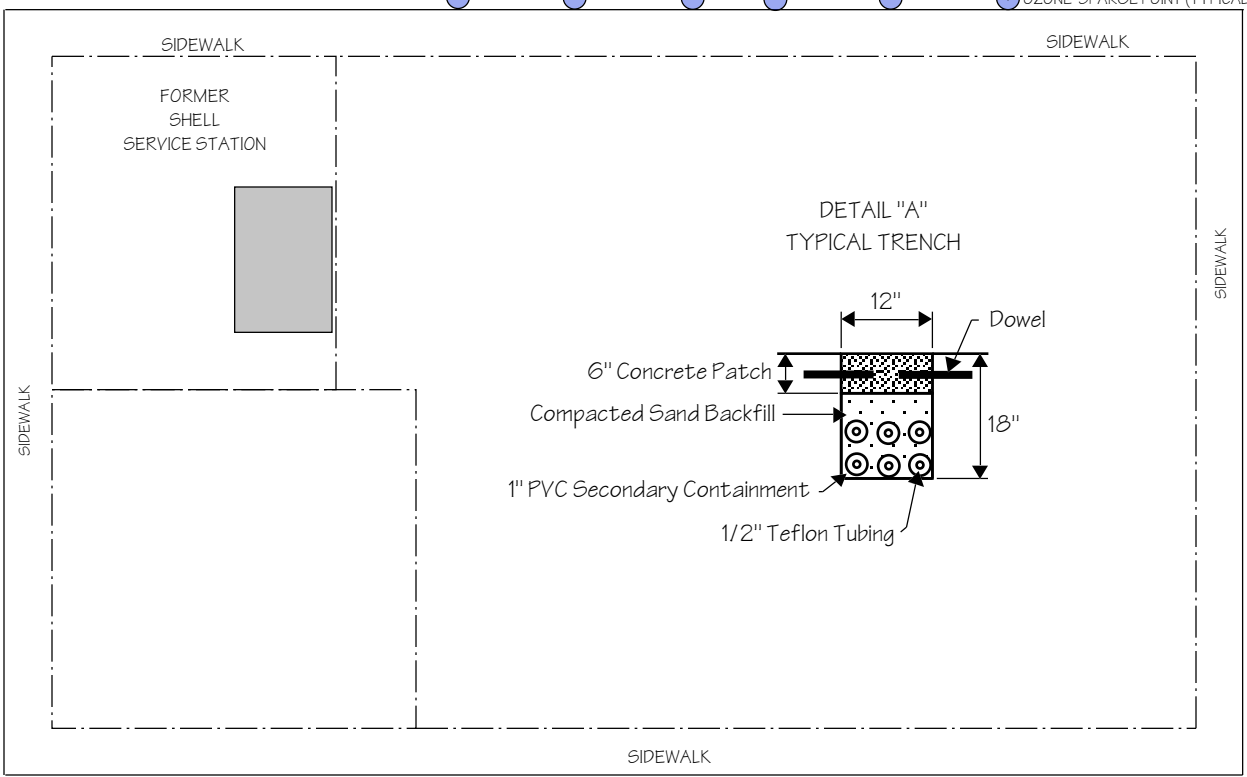
AQUA SCIENCE ENGINEERS

FIGURE 11

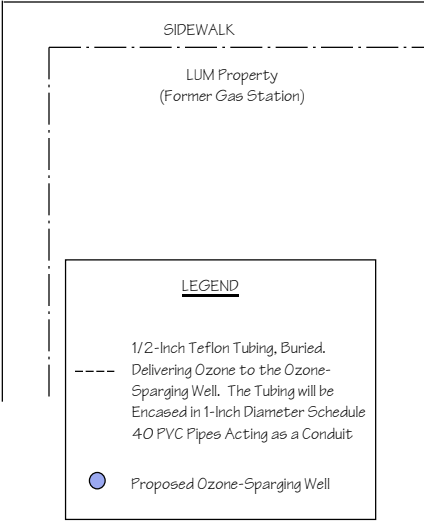


8th Street

SEE DETAIL "A" BELOW FOR TRENCH CROSS-SECTION



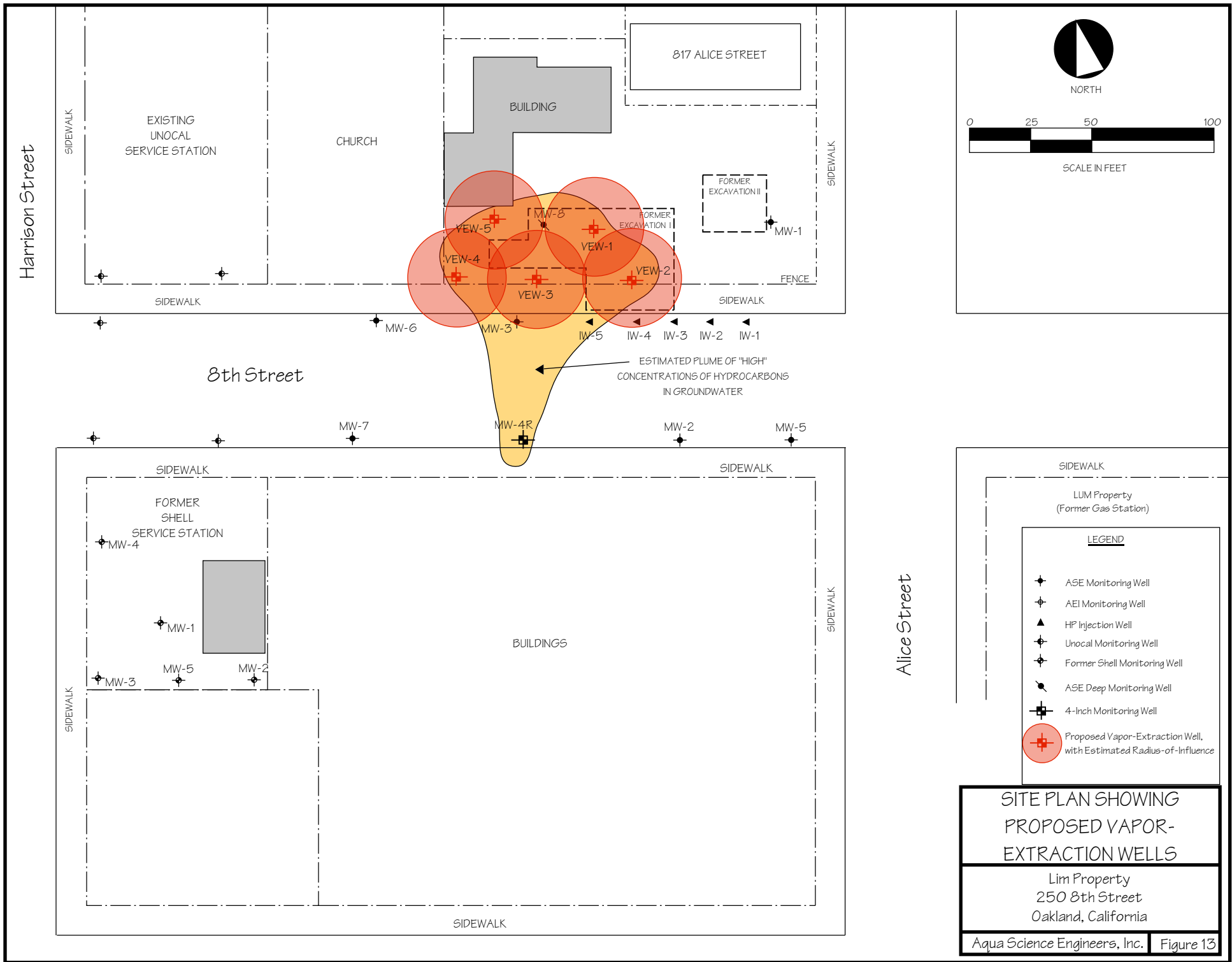
Alice Street



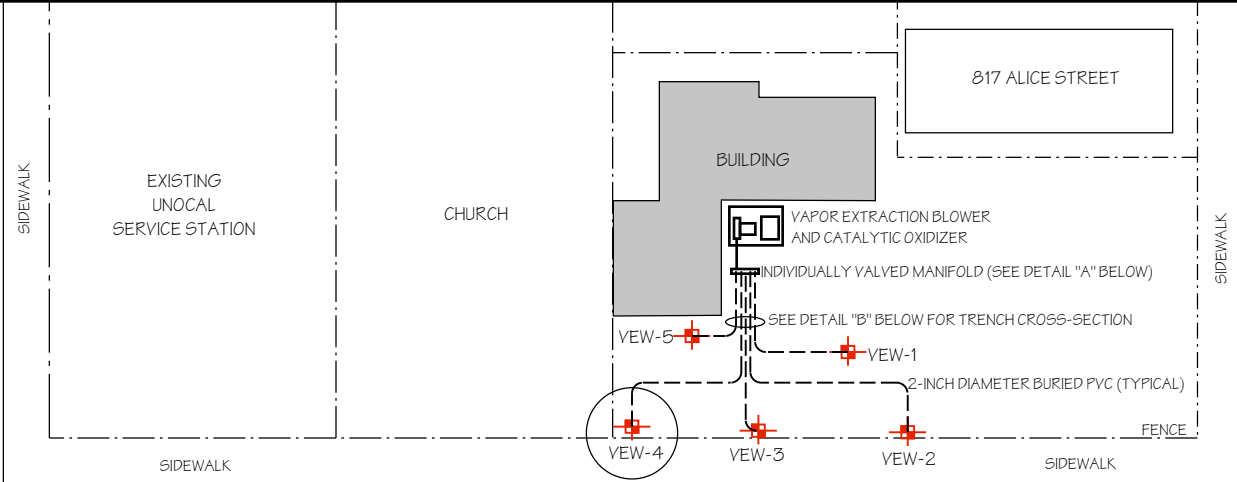
SITE PLAN SHOWING PROPOSED OZONE-SPARGING SYSTEM DETAILS

Lim Property
250 8th Street
Oakland, California

Aqua Science Engineers, Inc. Figure 12

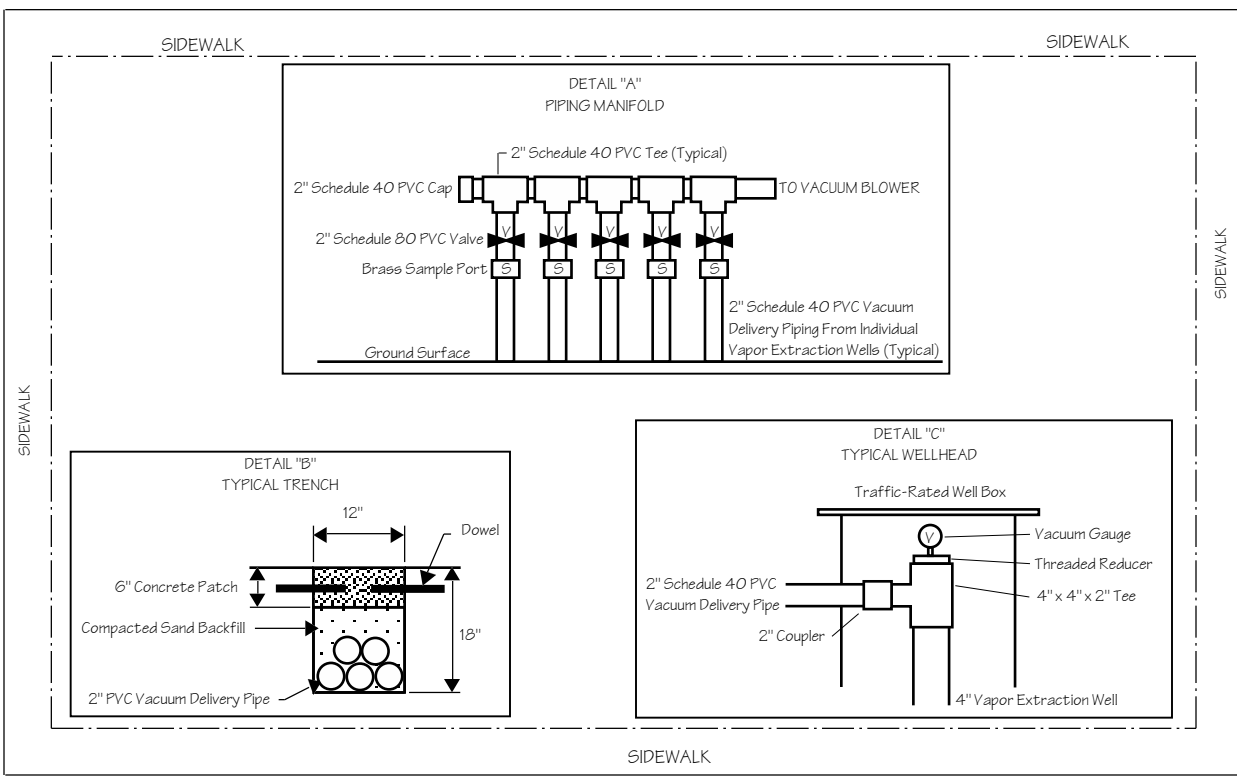
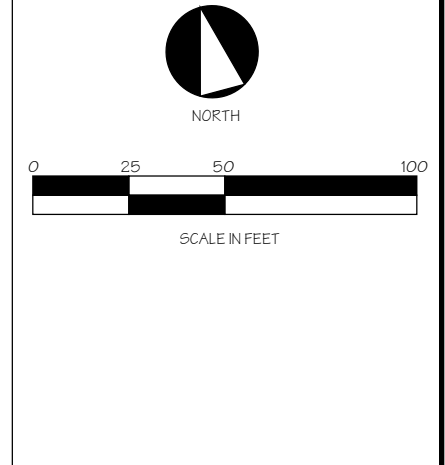


Harrison Street

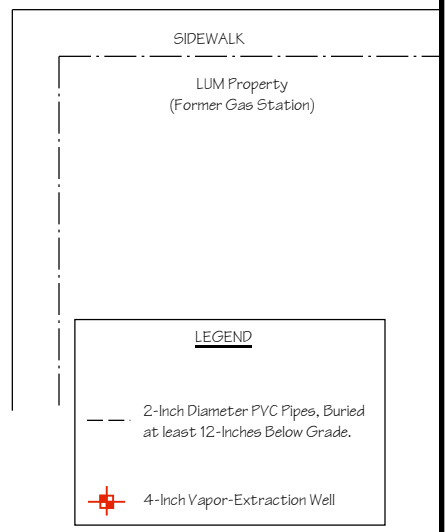


SEE DETAIL "C" BELOW FOR WELL HEAD CONSTRUCTION PLANS

8th Street



Alice Street



SITE PLAN SHOWING PROPOSED VAPOR-EXTRACTION SYSTEM & DETAILS

Lim Property
250 8th Street
Oakland, California

Aqua Science Engineers, Inc. Figure 14



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

TABLES

TABLE ONE
Groundwater Elevation Data
Lim Family Property
250 8th Street
Oakland, CA

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
MW-1	01/30/95	25.51	16.21		9.30
	04/12/95		15.71		9.80
	07/14/95		16.71		8.80
	10/17/95		17.72		7.79
	01/12/96		18.03		7.48
	07/25/96		16.82		8.69
	01/06/97		15.60		9.91
	07/08/97		17.31		8.20
	01/26/98		15.21		10.30
	07/23/98		15.38		10.13
	01/05/99		16.82		8.69
	07/13/99		15.89		9.62
	01/12/00		17.44		8.07
	04/24/00		16.37		9.14
	07/20/00		16.30		9.21
	10/24/00		17.25		8.26
	01/18/01		17.29		8.22
	04/05/01		15.88		9.63
	07/17/01		16.54		8.97
	10/25/01		16.89		8.62
	01/21/02		14.92		10.59
	04/11/02		14.02		11.49
	06/11/02	29.72	15.33		14.39
	09/17/02		15.96		13.76
	12/18/02		16.14		13.58
	03/25/03		16.16		13.56
	06/23/03		16.01		13.71
	09/26/03		16.57		13.15
	12/18/03		16.41		13.31
	03/12/04		14.64		15.08
	06/17/04		15.71		14.01
	09/17/04		16.35		13.37
	12/17/04		16.10		13.62
	04/28/05		14.10		15.62
	07/19/05		15.94		13.78
	10/03/05		16.34		13.38
	12/06/05		16.21		13.51
	03/15/06		16.21		13.51
	06/28/06		14.92		14.80
	08/31/06		15.60		14.12
	11/21/06		17.20		12.52
02/12/07		16.12		13.60	
05/02/07		16.92		12.80	
08/09/07		17.58		12.14	
12/06/07		18.60		11.12	
02/26/08		17.13		12.59	
05/30/08		18.17		11.55	
08/28/08		18.47		11.25	
12/11/08		19.19		10.53	
03/31/09		17.59		12.13	
	12/31/09		18.57		11.15

TABLE ONE
 Groundwater Elevation Data
 Lim Family Property
 250 8th Street
 Oakland, CA

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
MW-2	01/30/95	23.99	15.02		8.97
	04/12/95		14.75		9.24
	07/14/95		16.02		7.97
	10/17/95		16.94		7.05
	01/12/96		17.05		6.94
	07/25/96		16.02		7.97
	01/06/97		14.34		9.65
	07/08/97		16.52		7.47
	01/26/98		14.10		9.89
	07/23/98		14.70		9.29
	01/05/99		16.01		7.98
	07/13/99		15.40		8.59
	01/12/00		16.76		7.23
	04/24/00		15.67		8.32
	07/20/00		15.70		8.29
	10/24/00		16.56		7.43
	01/18/01		16.47		7.52
	04/05/01		15.88		8.11
	07/17/01	15.35		8.64	
	10/25/01	15.63		8.36	
	01/21/02	13.55		10.44	
	04/11/02	13.74		10.25	
	06/11/02	28.19	14.06		14.13
	09/17/02	14.67		13.52	
	12/18/02	14.88		13.31	
	03/25/03	15.11		13.08	
	06/23/03	14.94		13.25	
	09/26/03	15.49		12.70	
	12/18/03	15.13		13.06	
	03/12/04	13.50		14.69	
	06/17/04	14.63		13.56	
	09/17/04	15.19		13.00	
	12/17/04	14.88		13.31	
	04/28/05	13.39		14.80	
	07/19/05	15.27		12.92	
	10/03/05	15.57		12.62	
	12/06/05	15.35		12.84	
	03/15/06	12.65		15.54	
	06/28/06	14.45		13.74	
	08/31/06	15.37		12.82	
	11/21/06	16.22		11.97	
	02/12/07	16.12		12.07	
05/02/07	16.12		12.07		
08/09/07	16.85		11.34		
12/06/07	17.95		10.24		
02/26/08	16.15		12.04		
05/30/08	17.33		10.86		
08/28/08	17.53		10.66		
12/11/08	18.28		9.91		
03/31/09	16.63		11.56		
12/31/09			17.46	10.73	

TABLE ONE
 Groundwater Elevation Data
 Lim Family Property
 250 8th Street
 Oakland, CA

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)	
MW-3	01/12/00	24.25	16.68	0.01	7.58*	
	04/24/00		15.58	0.15	8.79*	
	07/20/00		16.01	0.41	8.57*	
	10/24/00		16.95	0.21	7.47*	
	01/18/01		16.63	0.21	7.79*	
	04/05/01		15.16	0.23	9.27*	
	07/17/01		15.92	0.39	8.64*	
	10/25/01		16.26	0.38	8.29*	
	01/21/02		14.08	0.16	10.30*	
	04/11/02		14.59	0.54	10.09*	
	06/11/02		28.58	15.16	0.90	14.14*
	09/17/02			16.04	1.24	13.53*
	10/01/02	16.14		1.23	13.42*	
	10/25/02	15.80		0.60	13.26*	
	11/12/02	15.87		0.47	13.09*	
	12/18/02	15.42		0.47	13.54*	
	03/25/03	16.11		1.14	13.38*	
	06/23/03	16.58		1.86	13.49*	
	09/26/03	16.11		0.66	13.00*	
	12/18/03	15.83		0.59	13.22*	
	03/12/04	14.51		1.21	15.04*	
	06/17/04	15.25		0.68	13.87*	
	09/17/04	16.14	0.96	13.21*		
	12/17/04	15.05	0.25	13.73*		
	01/13/05	13.40	0.45	15.54*		
	04/28/05	15.31	2.43	15.21*		
	07/19/05	16.29	1.67	13.63*		
	10/03/05	16.10	1.47	13.66*		
	12/06/05	15.04	1.17	14.48*		
	03/15/06	12.65	2.41	15.49*		
	06/28/06	13.55	2.61	16.16*		
	08/31/06	14.85	2.20	15.49*		
	11/21/06	16.05	1.10	13.41*		
	02/12/07	15.96	0.35	12.90*		
	05/02/07	15.11	0.09	13.54*		
	08/09/07	15.83	0.09	12.82*		
12/06/07	18.10	0.50	10.88*			
02/26/08	16.47	0.22	12.29*			
05/30/08	17.90	0.70	11.24*			
08/28/08	18.05	0.54	10.96*			
12/11/08	18.57	0.46	10.38*			
03/31/09	16.89	0.23	11.87*			
12/31/09		17.64	sheen	10.94*		

TABLE ONE
 Groundwater Elevation Data
 Lim Family Property
 250 8th Street
 Oakland, CA

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
MW-4	01/12/00	23.71	17.24		6.47
	04/24/00		16.18		7.53
	07/20/00		16.18		7.53
	10/24/00		17.03		6.68
	01/18/01		16.87		6.84
	04/05/01		15.28		8.43
	07/17/01		15.92		7.79
	10/25/01		16.23		7.48
	01/21/01		14.14		9.57
	04/11/02		14.43		9.28
	06/11/02	28.61	14.72		13.89
	09/17/02		15.29		13.32
	12/18/02		15.20		13.41
	03/25/03		15.53		13.08
	06/23/03		15.35		13.26
	09/26/03		15.91		12.70
	12/18/03		15.63		12.98
	03/12/04		13.88		14.73
	06/17/04		15.03		13.58
	09/17/04		15.61		13.00
	12/17/04	15.32		13.29	
	04/28/05	13.82		14.79	
	07/19/05	15.44		13.17	
	10/03/05	15.91		12.70	
	12/06/05	15.71		12.90	
	03/15/06	13.05		15.56	
	06/28/06	14.49		14.12	
	08/31/06	15.75		12.86	
	11/21/06	16.70		11.91	
	02/12/07	16.51		12.10	
	05/02/07	16.51		12.10	
	08/09/07	17.17		11.44	
12/06/07	18.08		10.53		
02/26/08	16.57		12.04		
05/30/08	17.66		10.95		
08/28/08	17.98		10.63		
12/11/08	18.61		10.00		
03/31/09	18.75		2.00	11.46*	
12/31/09			19.85	2.30	10.60*

TABLE ONE
 Groundwater Elevation Data
 Lim Family Property
 250 8th Street
 Oakland, CA

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)
MW-5	06/11/02	28.40	14.23		14.17
	09/17/02		14.80		13.60
	12/18/02		15.08		13.32
	03/25/03		15.31		13.09
	06/23/03		15.16		13.24
	09/26/03		15.72		12.68
	12/18/03		15.47		12.93
	03/12/04		13.44		14.96
	06/17/04		14.90		13.50
	09/17/04		15.45		12.95
	12/17/04		15.12		13.28
	04/28/05		13.63		14.77
	07/19/05		15.67		12.73
	10/03/05		15.81		12.59
	12/06/05		15.60		12.80
	03/15/06		12.81		15.59
	06/28/06		15.21		13.19
	08/31/06		15.55		12.85
	11/21/06		17.09		11.31
	02/12/07		16.29		12.11
05/02/07	16.21		12.19		
08/09/07	16.97		11.43		
12/06/07	18.35		10.05		
02/26/08	16.35		12.05		
05/30/08	17.62		10.78		
08/28/08	17.72		10.68		
12/11/08	18.62		9.78		
03/31/09	16.94		11.46		
12/31/09			17.73		10.67

TABLE ONE
 Groundwater Elevation Data
 Lim Family Property
 250 8th Street
 Oakland, CA

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)	
MW-6	06/11/02	29.20	14.95		14.25	
	09/17/02		15.47		13.73	
	12/18/02		15.43		13.77	
	03/25/03		15.67		13.53	
	06/23/03		15.48		13.72	
	09/26/03		NOT MEASURED - SOUNDER MALFUNCTION			
	12/18/03		15.79		13.41	
	03/12/04		14.04		15.16	
	06/17/04		15.13		14.07	
	09/17/04		15.74		13.46	
	12/17/04		15.54		13.66	
	04/28/05		13.91		15.29	
	07/19/05		15.30		13.90	
	10/03/05		15.35		13.85	
	12/06/05		15.69		13.51	
	03/15/06		13.14		16.06	
	06/28/06		14.44		14.76	
	08/31/06		16.25		12.95	
	11/21/06		16.69		12.51	
	02/12/07		16.63		12.57	
	05/02/07		16.57		12.63	
	08/09/07		17.19		12.01	
	12/06/07		17.95		11.25	
	02/26/08		16.66		12.54	
	05/30/08		17.64		11.56	
	08/28/08		18.03		11.17	
	12/11/08		18.54		10.66	
	03/31/09		17.10		12.10	
	12/31/09		18.00		11.20	

TABLE ONE
 Groundwater Elevation Data
 Lim Family Property
 250 8th Street
 Oakland, CA

Well I.D.	Date of Measurement	Top of Casing Elevation (msl)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (msl)	
MW-7	06/11/02	28.95	15.19		13.76	
	09/17/02		15.73		13.22	
	12/18/02		NOT MEASURED - CAR PARKED OVER WELL			
	03/25/03		15.96		12.99	
	06/23/03		15.75		13.20	
	09/26/03		16.29		12.66	
	12/18/03		16.03		12.92	
	03/12/04		14.28		14.67	
	06/17/04		15.42		13.53	
	09/17/04		16.02		12.93	
	12/17/04		15.45		13.50	
	04/28/05		14.15		14.80	
	07/19/05		15.30		13.65	
	10/03/05		16.25		12.70	
	12/06/05		16.05		12.90	
	03/15/06		13.36		15.59	
	06/28/06		14.81		14.14	
	08/31/06		16.13		12.82	
	11/21/06		17.06		11.89	
	02/12/07		16.97		11.98	
05/02/07	16.93		12.02			
08/09/07	17.56		11.39			
12/06/07	18.32		10.63			
02/26/08	16.93		12.02			
05/30/08	17.97		10.98			
08/28/08	18.33		10.62			
12/11/08	18.86		10.09			
03/31/09	17.37		11.58			
	12/31/09		18.26		10.69	
MW-8	02/26/08	30.14	21.50		8.64	
	05/30/08		22.52		7.62	
	08/28/08		23.27		6.87	
	12/11/08		23.15		6.99	
	03/31/09		21.46		8.68	
			12/31/09		22.75	

Notes:

* = Adjusted for the presence of free-floating oil by the equation: Top of Casing Elevation - Depth to Water + (0.8 x Floating Hydrocarbon Thickness) = Groundwater Elevation (Adjusted).

Top of casing elevations resurveyed by Mid Coast Engineers on 6/27/02 and 7/11/02.

TABLE TWO
 Summary of Chemical Analysis of Groundwater Samples
 Petroleum Hydrocarbon Concentrations
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
MW-1												
01/30/95	740	200	3	5	1	4	--	---	---	---	---	---
04/12/95	400	500	< 0.5	< 0.5	3	< 2	--	---	---	---	---	---
07/14/95	520	400	1	< 0.5	2	3	--	---	---	---	---	---
10/17/95	400	200	0.5	1	3	< 2	--	---	---	---	---	---
01/12/96	120	890	< 0.5	< 0.5	< 0.5	< 2.0	---	---	---	---	---	---
07/08/96	320	300	0.52	2.7	1.2	2.3	< 5.0	---	---	---	---	---
01/06/97	110	75	< 0.5	0.68	< 0.5	< 0.5	< 5.0	---	---	---	---	---
07/08/97	380	290	< 0.5	1.5	1.4	1.9	< 5.0	---	---	---	< 0.5	< 0.5
01/26/98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
07/23/98	190	< 50	0.54	2.8	2	1.8	< 5.0	---	---	---	< 2	< 2
01/05/99	200	< 50	1.8	1.6	3.3	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
07/13/99	340	< 50	< 0.5	< 0.5	2.6	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
01/12/00	300	1,000	22	36	5.5	24	< 5.0	---	---	---	< 0.5	< 0.5
04/24/00	360	280*	< 0.5	< 0.5	< 0.5	2.1	< 5.0	---	---	---	< 0.5	< 0.5
07/20/00	290	150*	1.8	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
10/24/00	170**	280*	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
01/18/01	170**	150*	< 0.5	< 0.5	< 0.5	2.1	< 5.0	---	---	---	< 0.5	< 0.5
04/05/01	350**	190*	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
07/17/01	310	570	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
10/25/01	250	260	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
01/22/02	200	250	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
04/11/02	260	300	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
06/11/02	270	330	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
09/17/02	320	1,700	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
12/18/02	170	320	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
03/25/03	320	< 500	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
06/23/03	240	310	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
09/26/03	110	300	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
12/18/03	150	340	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
03/12/04	220	510	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
06/17/04	250	490	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
09/17/04	110	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	---	---
11/10/04***	180	400	0.68	< 0.5	1.7	< 0.5	< 5.0	---	---	---	---	---
12/17/04	77	130	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
04/28/05	250	190	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.67	< 0.5	< 0.5	< 0.5	< 0.5
07/19/05	340	na	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.76	< 5.0	< 0.5	< 0.5	< 0.5
10/03/05	170	< 100	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.50	< 5.0	< 0.5	< 0.5	< 0.5
12/06/05	140	67	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
03/15/06	170	< 80	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
06/28/06	230	130	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
08/31/06	310	< 200	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
11/21/06	220	160	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
02/23/07	140	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 5.0	< 0.50	< 0.50	< 0.50
05/02/07	180	140	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 5.0	< 0.50	< 0.50	< 0.50
08/09/07	130	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.85	< 5.0	< 0.50	< 0.50	< 0.50
12/06/07	53	160	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 5.0	< 0.50	< 0.50	< 0.50
02/26/08	93	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.1	< 5.0	< 0.50	< 0.50	< 0.50
05/30/08	200	240	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.95	< 5.0	< 0.50	< 0.50	< 0.50
08/28/08	150	200	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 5.0	< 0.50	---	---
12/11/08	110	140	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.92	< 5.0	< 0.50	---	---
03/31/09	160	< 200	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.8	< 5.0	< 0.50	< 0.50	< 0.50
12/31/09	140	200	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.84	< 5.0	< 0.50	< 0.50	< 0.50

TABLE TWO
 Summary of Chemical Analysis of Groundwater Samples
 Petroleum Hydrocarbon Concentrations
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
<u>MW-2</u>												
01/30/95	88,000	800	19,000	18,000	2,400	10,000	--	---	---	---	---	---
04/12/95	110,000	990	21,000	28,000	2,800	14,000	--	---	---	---	---	---
07/14/95	120,000	5,000	20,000	25,000	3,200	15,000	--	---	---	---	---	---
10/17/95	190,000	4,000	15,000	26,000	4,900	23,000	--	---	---	---	---	---
01/12/96	32,000	2,600	10,000	8,000	1,100	4,800	< 2	---	---	---	---	---
07/08/96	110,000	2,500	20,000	18,000	2,500	12,000	< 500	---	---	---	---	---
01/06/97	230,000	37,000	11,000	19,000	4,300	20,000	< 1,200	---	---	---	---	---
07/08/97	91,000	35,000	16,000	20,000	2,700	13,000	< 1,000	---	---	---	< 0.5	< 0.5
01/26/98	50,000	11,000	12,000	12,000	1,600	6,700	< 250	---	---	---	11	< 0.5
07/23/98	50,000	8,100#	11,000	8,300	1,800	7,000	1,100	---	---	---	9.9	< 0.5
01/05/99	50,000	7,600#	12,000	12,000	2,300	9,600	1,300	---	---	---	< 50	< 50
07/13/99	73,000	8,500	11,000	13,000	2,200	9,800	< 500	---	---	---	7.7	< 0.5
01/12/00	63,000	11,000	10,000	12,000	1,800	7,800	< 500	---	---	---	8.8	< 1.0
04/24/00	76,000	23,000*	7,100	14,000	2,000	9,400	< 500	---	---	---	5.9	< 5.0
07/20/00	68,000	5,300#	11,000	14,000	2,300	11,000	< 1,000	---	---	---	6.7	< 5.0
10/24/00	48,000	6,400*	11,000	9,400	1,500	7,300	< 500	---	---	---	< 5.0	< 5.0
01/18/01	37,000	4,600*	6,900	5,600	1,200	5,300	< 500	---	---	---	< 5.0	< 5.0
04/05/01	59,000	4,600*	7,100	9,800	1,600	7,600	< 500	---	---	---	4.6	< 5.0
07/17/01	90,000	< 10,000	9,200	14,000	2,700	11,000	< 50	---	---	---	< 50	---
10/25/01	79,000	< 3,800	9,200	14,000	2,400	11,000	< 50	---	---	---	< 50	< 50
01/22/02	76,000	< 2,300	7,000	13,000	2,200	9,600	< 50	---	---	---	< 50	< 50
04/11/02	76,000	< 1,500	7,800	11,000	2,900	12,000	< 50	---	---	---	---	---
06/11/02	72,000	< 2,500	7,300	9,600	2,500	12,000	< 50	---	---	---	---	---
09/17/02	52,000	< 3,000	5,000	5,400	2,100	9,100	< 20	---	---	---	< 20	< 20
12/18/02	46,000	< 6,000	2,900	3,000	1,800	7,600	22	---	---	---	< 10	< 10
03/25/03	87,000	< 8,000	7,900	9,300	2,900	12,000	< 50	---	---	---	< 50	< 50
06/23/03	46,000	< 3,000	7,800	4,000	1,900	6,600	< 50	---	---	---	< 50	< 50
09/26/03	52,000	< 3,000	9,100	3,500	1,300	5,000	< 50	---	---	---	< 50	< 50
12/18/03	61,000	< 4,000	13,000	3,500	1,600	5,600	< 20	---	---	---	< 20	< 20
03/12/04	53,000	< 4,000	9,100	3,500	1,700	5,700	< 25	---	---	---	< 25	< 25
06/17/04	59,000	< 3,000	7,100	4,000	1,700	7,300	< 25	---	---	---	< 25	< 25
09/17/04	33,000	--	9,800	1,200	1,300	4,000	< 20	---	---	---	---	---
11/10/04***	44,000	3,600	13,000	4,400	1,600	6,000	< 1000	---	---	---	---	---
12/17/04	54,000	< 3,000	7,900	2,200	1,700	3,900	< 15	---	---	---	< 15	< 15
04/28/05	81,000	< 3,000	7,000	6,000	2,100	8,700	< 15	90	< 15	< 15	< 15	< 15
07/19/05	59,000	na	7,900	4,400	1,900	7,000	< 15	< 15	77	< 15	< 15	< 15
10/03/05	34,000	< 800	7,800	810	1,000	2,800	< 15	< 15	< 70	< 15	< 15	< 15
12/06/05	26,000	< 800	6,100	940	770	2,000	< 15	---	---	---	---	---
03/15/06	33,000	< 1,500	7,700	2,600	1,400	4,200	< 15	< 15	< 15	< 15	< 15	< 15
06/28/06	96,000	< 4,000	10,000	14,000	2,900	12,000	< 15	< 15	< 5.0	< 15	33	< 15
8/31/06	47,000	< 3,000	5,800	5,100	2,200	8,700	< 15	< 15	81	< 15	< 15	< 15
11/21/06	51,000	< 1,500	6,800	3,400	1,700	6,200	< 15	< 15	82	< 15	< 15	< 15
02/23/07	38,000	< 1,500	7,800	2,000	1,500	4,600	< 15	< 15	190	< 15	< 15	< 15
05/02/07	55,000	< 3,000	6,500	5,100	2,400	8,600	< 15	< 15	110	< 15	< 15	< 15
08/09/07	39,000	< 3,000	6,600	2,200	1,600	4,900	< 15	< 15	81	< 15	< 15	< 15
12/06/07	20,000	< 1,500	7,400	510	680	1,200	< 15	< 15	120	< 15	< 15	< 15
02/26/08	43,000	< 4,000	8,200	940	1,400	3,700	< 15	< 15	70	< 15	< 15	< 15
05/30/08	31,000	< 1,000	11,000	620	1,100	2,300	< 15	< 15	84	< 15	< 15	< 15
08/28/08	38,000	< 3,000	11,000	630	1,400	3,800	< 25	< 25	< 150	< 25	---	---
12/11/08	32,000	< 2,000	11,000	610	1,000	2,700	< 25	< 25	< 150	< 25	---	---
03/31/09	44,000	< 4,000	6,500	3,300	1,700	5,600	< 9.0	< 9.0	56	< 9.0	< 9.0	< 9.0
12/31/09	36,000	< 4,000	9,700	350	1,600	3,800	< 9.0	13	56	< 9.0	< 9.0	< 9.0

TABLE TWO
 Summary of Chemical Analysis of Groundwater Samples
 Petroleum Hydrocarbon Concentrations
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
<u>MW-3</u>												
01/12/00	140,000	13,000*	22,000	19,000	2,400	11,000	< 500	---	---	---	---	---
04/24/00	240,000	700,000*	33,000/	52,000/	5,700/	28,000/	< 5,000	---	---	---	---	---
			35,000	87,000	18,000	84,000						
07/20/00	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
10/24/00	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
01/18/01	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
04/05/01	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
07/17/01	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
10/25/01	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
01/22/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
04/11/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
06/11/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
09/17/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/18/02	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
03/25/03	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
06/23/03	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
09/26/03	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/18/03	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
03/12/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
06/17/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
09/17/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
11/10/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/17/04	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
04/28/05	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
07/19/05	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
10/03/05	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/06/05	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
03/15/06	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
06/28/06	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
8/31/06	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
11/21/06	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
02/23/07	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
05/02/07	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
08/09/07	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/06/07	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
02/26/08	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
05/30/08	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
08/28/08	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/11/08	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
03/31/09	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/31/09	60,000	< 25,000	7,500	6,500	1,000	6,600	< 20	< 20	< 90	< 20	< 20	< 20

TABLE TWO
 Summary of Chemical Analysis of Groundwater Samples
 Petroleum Hydrocarbon Concentrations
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
MW-4												
01/12/00	99,000	7,900*	16,000	20,000	2,100	12,000	<2,500	---	---	---	< 50	< 50
04/24/00	54,000	44,000*	3,400/ 4,500	13,000/ 20,000	1,800/ 2,800	8,800/ 14,000	<1,300	---	---	---	< 250	< 250
07/20/00	8,000	3,500	9,200/ 11,000	20,000 22,000	2,500 3,400	12,000/ 13,000	<1,000	---	---	---	< 200	< 200
10/24/00	98,000	8,000*	21,000	29,000	2,700	15,000	<1,000	---	---	---	< 250	< 250
01/18/01	91,000	12,000	17,000/ 15,000	21,000/ 21,000	2,500/ 2,800	13,000/ 11,000	<1,000	---	---	---	< 250	< 250
04/05/01	88,000	7,500*	6,900/ 3,200	18,000/ 9,000	2,500/ 1,300	12,000/ 6,400	<1,000	---	---	---	< 50	< 50
07/17/01	95,000	< 3,000	8,000	16,000	2,900	11,000	49	---	---	---	69	---
10/25/01	89,000	< 2,200	9,300	18,000	2,400	12,000	66	---	---	---	72	< 50
01/22/02	80,000	< 2,300	4,600	15,000	2,500	11,000	< 50	---	---	---	< 50	< 50
04/11/02	90,000	< 900	6,600	18,000	2,800	12,000	55	---	---	---	---	---
06/25/02	110,000	< 3,000	10,000	20,000	2,900	13,000	< 100	---	---	---	< 100	< 100
09/17/02	110,000	< 3,000	9,600	21,000	2,800	13,000	< 100	---	---	---	< 100	< 100
12/18/02	97,000	< 4,000	8,000	20,000	2,600	12,000	< 50	---	---	---	< 50	< 50
03/25/03	97,000	< 7,500	7,600	22,000	2,500	12,000	< 100	---	---	---	< 100	< 100
06/23/03	100,000	< 3,000	9,600	22,000	3,300	15,000	< 100	---	---	---	< 100	< 100
09/26/03	110,000	< 4,000	9,300	17,000	2,100	10,000	< 50	---	---	---	87	< 50
12/18/03	110,000	< 2,000	8,900	19,000	2,500	12,000	< 25	---	---	---	46	< 25
03/12/04	96,000	< 4,000	6,500	18,000	2,700	12,000	< 40	---	---	---	< 40	< 40
06/17/04	110,000	< 4,000	10,000	20,000	2,900	13,000	< 50	---	---	---	93	< 50
09/17/04	78,000	--	9,300	15,000	2,400	11,000	< 50	---	---	---	---	---
11/10/04***	87,000	4,300	15,000	21,000	3,000	16,000	< 1300	---	---	---	---	---
12/17/04	88,000	< 3,000	8,500	16,000	2,800	12,000	< 25	---	---	---	53	< 25
04/28/05	110,000	< 3,000	7,800	14,000	2,200	10,000	< 25	< 25	< 25	< 25	46	< 25
07/19/05	90,000	na	10,000	13,000	2,300	10,000	< 40	< 20	< 20	< 20	73	< 40
10/03/05	68,000	< 800	9,400	4,000	1,800	8,700	23	23	< 5.0	< 20	62	< 20
12/06/05	81,000	< 1,500	8,900	7,200	2,200	9,500	< 20	---	---	---	---	---
03/15/06	68,000	< 3,000	7,300	14,000	2,500	10,000	< 20	< 20	< 20	< 20	< 20	< 20
06/28/06	61,000	< 3,000	8,500	4,100	2,600	11,000	< 20	< 20	< 5.0	< 20	20	< 20
08/31/06	68,000	< 2,000	9,500	9,600	2,500	12,000	< 20	< 20	< 5.0	< 20	36	< 20
11/21/06	68,000	< 1,500	9,000	5,000	2,000	9,300	< 20	< 20	230	< 20	42	< 20
02/23/07	90,000	< 2,000	11,000	11,000	2,800	12,000	< 20	< 20	290	< 20	36	< 20
05/02/07	56,000	< 2,000	7,300	6,300	2,500	11,000	< 15	< 15	160	< 15	20	< 15
08/09/07	52,000	< 2,000	7,600	2,600	2,100	8,400	< 15	15	170	< 15	31	< 15
12/06/07	60,000	< 2,000	13,000	2,000	2,800	11,000	< 15	22	150	< 15	< 15	< 15
02/26/08	42,000	< 2,000	3,700	2,300	2,300	8,900	< 15	< 15	90	< 15	< 15	< 15
05/30/08	64,000	< 3,000	9,200	5,100	3,000	12,000	< 15	< 15	83	< 15	19	< 15
08/28/08	73,000	< 5,000	9,700	5,500	3,300	12,000	< 15	< 15	< 70	< 15	---	---
12/11/08	120,000	< 40,000	14,000	12,000	4,400	19,000	< 25	< 25	< 150	< 25	---	---
03/31/09	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											
12/31/09	NOT SAMPLED DUE TO FREE-FLOATING HYDROCARBONS											

TABLE TWO
 Summary of Chemical Analysis of Groundwater Samples
 Petroleum Hydrocarbon Concentrations
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
<u>MW-5</u>												
06/11/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	28	---	---	---	< 0.5	< 0.5
09/17/02	< 50	110	< 0.5	< 0.5	< 0.5	< 0.5	4.8	---	---	---	< 0.5	< 0.5
12/18/02	< 50	140	< 0.5	< 0.5	< 0.5	< 0.5	1.8	---	---	---	< 0.5	< 0.5
03/25/03	< 50	130	< 0.5	< 0.5	< 0.5	< 0.5	7.4	---	---	---	< 0.5	< 0.5
06/23/03	< 50	390	< 0.5	< 0.5	< 0.5	< 0.5	17	---	---	---	< 0.5	< 0.5
09/26/03	< 50	700	< 0.5	< 0.5	< 0.5	< 0.5	21	---	---	---	< 0.5	< 0.5
12/18/03	< 50	550	< 0.5	< 0.5	< 0.5	< 0.5	16	---	---	---	< 0.5	< 0.5
03/12/04	< 50	490	< 0.5	< 0.5	< 0.5	< 0.5	9.1	---	---	---	< 40	< 40
06/17/04	< 50	510	< 0.5	< 0.5	< 0.5	< 0.5	9.8	---	---	---	< 0.5	< 0.5
09/17/04	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	5.5	---	---	---	---	---
11/10/04***	< 50	370	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
12/17/04	< 50	120	< 0.5	< 0.5	< 0.5	< 0.5	9.2	---	---	---	< 0.5	< 0.5
04/28/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	2.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/19/05	< 50	na	< 0.5	< 0.5	< 0.5	< 0.5	6.1	2.1	< 5.0	< 0.5	< 0.5	< 0.5
10/03/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	2.4	1.7	< 5.0	< 0.5	< 0.5	< 0.5
12/06/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
03/15/06	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	3.3	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5
06/28/06	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	1.8	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5
08/31/06	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	3.4	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/05/06	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	5.2	1.7	5.4	< 0.50	< 0.50	< 0.50
02/23/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	6.0	1.4	< 5.0	< 0.50	< 0.50	< 0.50
05/02/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	3.8	1.3	< 5.0	< 0.50	< 0.50	< 0.50
08/09/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	5.5	1.3	< 5.0	< 0.50	< 0.50	< 0.50
12/06/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	1.8	1.5	< 5.0	< 0.50	< 0.50	< 0.50
02/26/08	260	< 50	32	1.3	0.62	0.92	3.4	5.6	7.7	< 0.50	0.60	< 0.50
05/30/08	71	< 50	1.8	< 0.50	< 0.50	< 0.50	2.4	3.1	< 5.0	< 0.50	< 0.50	< 0.50
08/28/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	2.1	2.2	< 5.0	< 0.50	---	---
12/11/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	2.2	2.5	< 5.0	< 0.50	---	---
03/31/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	1.3	< 5.0	< 0.50	< 0.50	< 0.50
12/31/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	1.9	1.5	< 5.0	< 0.50	< 0.50	< 0.50

TABLE TWO
 Summary of Chemical Analysis of Groundwater Samples
 Petroleum Hydrocarbon Concentrations
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
<u>MW-6</u>												
06/11/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	1.2	---	---	---	< 0.5	< 0.5
09/17/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	1.0	---	---	---	< 0.5	< 0.5
12/18/02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	0.90	---	---	---	< 0.5	< 0.5
03/25/03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	< 0.5	< 0.5
06/23/03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
09/26/03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
12/18/03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
03/12/04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
06/17/04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
09/17/04	< 50	--	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	---	---
11/10/04***	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
12/17/04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---	---	---	< 0.5	< 0.5
04/28/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
07/19/05	< 50	na	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5
10/03/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5
12/06/05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	---	---	---	---	---
03/15/06	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
06/28/06	< 50	< 50	< 0.5	< 0.5	< 0.5	0.65	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	< 0.5
08/31/06	< 50	< 50	< 0.50	2.4	0.90	4.0	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
11/21/06	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
02/23/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
05/02/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
08/09/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/06/07	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
02/26/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
05/30/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
08/28/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	---	---
12/11/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	---	---
03/31/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/31/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50

TABLE TWO
 Summary of Chemical Analysis of Groundwater Samples
 Petroleum Hydrocarbon Concentrations
 All results are in parts per billion

Well/ Date Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TBA	Other Oxys	EDC	EDB
MW-7												
06/25/02	38,000	< 2,000	890	5,100	1,200	5,200	< 20	---	---	---	< 20	< 20
09/17/02	26,000	< 2,000	590	3,600	880	4,000	< 20	---	---	---	< 20	< 20
12/18/02	NOT SAMPLED - CAR PARKED OVER WELL											
03/25/03	39,000	< 2,900	410	7,700	1,000	6,400	< 5.0	---	---	---	< 2.5	< 2.5
06/23/03	17,000	< 1,000	440	2,600	630	2,600	< 10	---	---	---	< 10	< 10
09/26/03	17,000	< 1,000	230	1,800	470	2,200	< 5.0	---	---	---	< 5.0	< 5.0
12/18/03	20,000	< 1,000	290	2,500	590	2,900	< 5.0	---	---	---	< 5.0	< 5.0
03/12/04	20,000	< 1,500	300	3,000	760	3,200	< 10	---	---	---	< 10	< 10
06/17/04	12,000	< 800	250	1,800	450	1,900	< 5.0	---	---	---	< 5.0	< 5.0
09/17/04	9,900	--	200	1,500	450	1,800	< 5.0	---	---	---	---	---
11/10/04***	20,000	1,900	550	4,200	920	4,000	< 500	---	---	---	---	---
12/17/04	14,000	< 800	220	1,700	530	2,000	< 3.0	---	---	---	< 3.0	< 3.0
04/28/05	13,000	< 300	84	1,000	660	2,200	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
07/19/05	16,000	na	170	1,800	540	2,200	< 2.5	< 2.5	< 5.0	< 2.5	< 2.5	< 2.5
10/03/05	7,400	< 200	140	710	350	1,100	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/06/05	22,000	< 600	240	2,300	800	3,400	< 5.0	---	---	---	---	---
03/15/06	3,800	< 200	4.6	160	120	620	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
06/28/06	6,400	< 500	19.0	340	490	940	< 0.90	< 0.50	< 5.0	< 0.50	< 0.90	< 0.90
08/31/06	20,000	< 600	160	2,200	1,300	3,500	< 2.5	1.4	< 15	< 5.0	< 2.5	< 2.5
11/21/06	21,000	< 1,000	240	2,500	880	3,400	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0
02/23/07	10,000	< 200	150	1,300	580	2,400	< 2.5	< 2.5	< 15	< 2.5	< 2.5	< 2.5
05/02/07	26,000	< 1,000	300	2,400	1,800	6,700	< 2.5	< 2.5	< 50	< 2.5	< 2.5	< 2.5
08/09/07	13,000	< 800	250	800	1,000	3,000	< 2.5	< 2.5	< 15	< 2.5	< 2.5	< 2.5
12/06/07	9,600	< 1,000	160	850	530	2,000	< 2.5	< 2.5	45	< 2.5	< 2.5	< 2.5
02/26/08	14,000	< 800	190	1,000	740	3,000	< 2.5	< 2.5	69	< 2.5	< 2.5	< 2.5
05/30/08	9,900	< 200	160	620	590	2,300	< 2.5	< 2.5	< 15	< 2.5	< 2.5	< 2.5
08/28/08	11,000	< 800	180	500	650	2,400	< 2.5	< 2.5	< 15	< 2.5	---	---
12/11/08	8,000	< 500	160	300	540	1,600	< 2.5	< 2.5	< 15	< 2.5	---	---
03/31/09	5,600	< 300	82	190	360	1,000	< 1.5	< 1.5	< 7.0	< 1.5	< 1.5	< 1.5
12/31/09	16,000	< 800	140	1,200	750	2,800	< 0.5	< 0.50	10	< 0.50	< 0.50	< 0.50
MW-8												
02/26/08	< 50	< 50	0.51	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
05/30/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
08/28/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	---	---
12/11/08	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	---	---
03/31/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
12/31/09	< 50	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 0.50	< 0.50	< 0.50
ESL	100	100	1	40	30	20	5					

Notes:
 * = Hydrocarbons reported are in the early diesel range, and do not match the laboratory standards.
 ** = Hydrocarbons reported do not match the laboratory gasoline standard.
 *** = Grab sample - Not purged
 # = Estimated concentration reported due to overlapping fuel patterns.
 / = Results separated by a slash represent results from two different laboratory methods (B020/B260)
 na = not analyzed
 Non-detectable concentrations noted by the less than sign (<) followed by the detection limit.
 Most recent data in bold.
 ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (May 2008)" document prepared by the California Regional Water Quality

TPH = Total petroleum hydrocarbons
 MTBE = Methyl tertiary butyl ether
 DIPE = Diisopropyl ether
 TBA = Tery-butanol
 Oxy = Oxygenates
 EDC = 1,2-Dichloroethane
 EDB = 1,2-Dibromoethane

TABLE THREE
Groundwater Analytical Results
Oil & Grease and Volatile Organic Compounds
 All results are in parts per billion

Date Sampled & Compound Analyzed	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8
<u>7/8/97</u>								
Hydrocarbon Oil and Grease	-	<1,000	-	-	-	-	-	-
Tetrachloroethane (PCE)	0.9	<0.5	-	-	-	-	-	-
Other VOCs	<0.5 - <3	<0.5 - <3	-	-	-	-	-	-
<u>1/26/98</u>								
Hydrocarbon Oil and Grease	-	<1,000	-	-	-	-	-	-
Trichloroethene	0.7	<5.0	-	-	-	-	-	-
Tetrachloroethene	10	<5.0	-	-	-	-	-	-
1,2-Dichloroethane	<0.5	11	-	-	-	-	-	-
Other VOCs	<0.5 - <50	<0.5 - <50	-	-	-	-	-	-
<u>7/23/98</u>								
Hydrocarbon Oil and Grease	-	<1,000	-	-	-	-	-	-
Tetrachloroethene	4	4.6	-	-	-	-	-	-
1,2-Dichloroethane	<2	9.9	-	-	-	-	-	-
Other VOCs	<2 - <10	<0.5 - <5.0	-	-	-	-	-	-
<u>1/5/99</u>								
Hydrocarbon Oil and Grease	-	<1,000	-	-	-	-	-	-
Tetrachloroethene	5.1	<50	-	-	-	-	-	-
Trichloroethene	0.52	<50	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	0.58	<50	-	-	-	-	-	-
Chloroform	8.2	<50	-	-	-	-	-	-
Other VOCs	<0.5 - <5	<50 - <500	-	-	-	-	-	-
<u>7/13/99</u>								
Hydrocarbon Oil and Grease	-	<1,000	-	-	-	-	-	-
Tetrachloroethene	1.5	0.68	-	-	-	-	-	-
Chloroform	4.6	<50	-	-	-	-	-	-
1,2-Dichloroethane	<0.50	7.7	-	-	-	-	-	-
Other VOCs	<0.5 - <5	<0.5 - <500	-	-	-	-	-	-
<u>1/12/00</u>								
Hydrocarbon Oil and Grease	-	<1,000	<1,000	<1,000	-	-	-	-
Tetrachloroethene	0.8	<1.0	<100	<50	-	-	-	-
Chloroform	3.2	<1.0	<100	<50	-	-	-	-
1,2-Dichloroethane	<0.50	8.8	120	140	-	-	-	-
Acetone	-	-	25,000	6,400	-	-	-	-
Naphthalene	-	-	550	540	-	-	-	-
Isopropylbenzene	-	-	120	89	-	-	-	-
Other VOCs	<0.5 - <5.0	<1.0 - <4.0	<100 - <10,000	<50 - <5,000	-	-	-	-
<u>4/24/00</u>								
Hydrocarbon Oil and Grease	-	<1,000	4,100	<1,000	-	-	-	-
1,2-Dichloroethane	<0.5	5.9	<1,000	<250	-	-	-	-
Naphthalene	-	-	3,800	590	-	-	-	-
Isopropylbenzene	-	-	1,200	<250	-	-	-	-
Other VOCs	<0.5 - <5.0	<5.0 - <20	1,000 - <100,000	<250 - <25,000	-	-	-	-
<u>7/20/00</u>								
Hydrocarbon Oil and Grease	-	<1,000	-	<1,000	-	-	-	-
Tetrachloroethene	0.59	<5.0	FREE	<200	-	-	-	-
Chloroform	2.1	<5.0	PRODUCT	<200	-	-	-	-
1,2-Dichloroethane	<0.5	6.7	---	<200	-	-	-	-
Acetone	-	-	NOT	<20,000	-	-	-	-
Naphthalene	-	-	SAMPLED	730	-	-	-	-
Other VOCs	<0.5 - <20	<5.0 - <20	-	<250 - <20,000	-	-	-	-
<u>10/24/00</u>								
Hydrocarbon Oil and Grease	-	<1,000	FREE	<1,000	-	-	-	-
Tetrachloroethene	<0.5	<5.0	PRODUCT	<250	-	-	-	-
Chloroform	1.0	<5.0	NOT	<250	-	-	-	-
Other VOCs	<0.5 - <20	<5.0 - <20	SAMPLED	<250 - <25,000	-	-	-	-
<u>1/18/01</u>								
Hydrocarbon Oil and Grease	-	2,100	FREE	1,300	-	-	-	-
Tetrachloroethene	1.3	<5.0	---	<250	-	-	-	-
Chloroform	6.4	<5.0	NOT	<250	-	-	-	-
Other VOCs	<0.5 - <20	<5.0 - <20	SAMPLED	<250 - <25,000	-	-	-	-

TABLE THREE
Groundwater Analytical Results
Oil & Grease and Volatile Organic Compounds
 All results are in parts per billion

Date Sampled & Compound Analyzed	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8
<u>4/5/01</u>								
Hydrocarbon Oil and Grease	-	< 1.0	FREE	1,100.0	-	-	-	-
Tetrachloroethene	< 0.5	1.1	PRODUCT	< 50	-	-	-	-
1,2 dichloroethane	< 0.5	4.6	---	< 50	-	-	-	-
Trichloroethene	< 0.5	0.58	NOT	< 50	-	-	-	-
Naphthalene	-	-	---	320	-	-	-	-
Other VOCs	< 0.5 - < 2.0	< 5.0 - < 20	SAMPLED	< 50 - < 5,000	-	-	-	-
<u>7/17/01</u>								
Hydrocarbon Oil and Grease	-	< 500	FREE	< 500	-	-	-	-
Tetrachloroethene	-	-	PRODUCT	-	-	-	-	-
1,2 dichloroethane	< 0.5	< 50	---	69.0	-	-	-	-
Trichloroethene	-	-	NOT	-	-	-	-	-
Naphthalene	-	-	---	-	-	-	-	-
Other VOCs	-	-	SAMPLED	-	-	-	-	-

TABLE FOUR
 Summary of Analytical Results of SOIL Samples
 Lim Property, 250 8th Street, Oakland, California
 Results are in parts per million (ppm)

Boring	Sample Depth (ft)	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA
EW-1	15.0	48	26*	0.33	1.2	0.89	4.2	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.035
	20.0	5,000	2000*	43	260	98	470	< 0.25	< 0.25	< 0.25	< 0.25	< 1.5
EW-2	25.0	6.6	14*	0.46	< 0.0050	0.15	0.16	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.026
	30.0	7.9	8.6*	0.098	< 0.0050	0.15	0.17	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
EW-3	20.0	2,200	330**	25	110	40	180	< 0.40	< 0.40	< 0.40	< 0.40	< 2.0
	25.0	1,200	1200*	13	2.3	5.1	16	< 0.20	< 0.20	< 0.20	< 0.20	< 0.90
EW-4	20.0	2.9	15*	< 0.0050	< 0.0050	0.0070	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	25.0	< 1.0	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
EW-5	15.0	21	54*	0.044	0.013	0.24	0.19	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015
	20.0	2,900	700*	8.6	53	31	120	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
ESL		83	83	0.044	2.9	3.3	2.3	0.023	NE	1.3	NE	0.075

Notes:

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.

Detectable concentrations in **BOLD**

ESL = Environmental Screening Level for drinking water as established by the California Regional Water Quality Control Board, San Francisco Bay Region as presented in the "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater" document dated May 2008.

* = Hydrocarbons are lower-boiling than typical Diesel Fuel

** = Some hydrocarbons are lower-boiling and some higher-boiling than typical Diesel Fuel



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX A

PERMITS

Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 05/07/2009 By jamesy

Permit Numbers: W2009-0395 to W2009-0396
Permits Valid from 05/21/2009 to 05/22/2009

Application Id: 1241471344642
Site Location: 150 8th Street
Project Start Date: 05/19/2009
Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org
Extension Start Date: 05/21/2009
Extension Count: 1

City of Project Site:Oakland

Completion Date:05/20/2009
Extension End Date: 05/22/2009
Extended By: vickyh1

Applicant: Aqua Science Engineers - Robert Kitay
55 Oak Ct, Suite 220, Danville, CA 94526
Property Owner: Alice Lim
3100 La Playa Ct, Lafayette, CA 94549
Client: ** same as Property Owner **

Phone: 925-820-9391 x202

Phone: --

Total Due: \$575.00
Total Amount Paid: \$575.00
Payer Name : Aqua Science Engineers Paid By: VISA **PAID IN FULL**

Works Requesting Permits:

Remediation Well Construction-Extraction - 5 Wells
Driller: V&W Drilling - Lic #: 720904 - Method: auger

Work Total: \$230.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0395	05/07/2009	08/17/2009	EW-1	10.00 in.	4.00 in.	8.00 ft	30.00 ft
W2009-0395	05/07/2009	08/17/2009	EW-2	10.00 in.	4.00 in.	8.00 ft	30.00 ft
W2009-0395	05/07/2009	08/17/2009	EW-3	10.00 in.	4.00 in.	8.00 ft	30.00 ft
W2009-0395	05/07/2009	08/17/2009	EW-4	10.00 in.	4.00 in.	8.00 ft	30.00 ft
W2009-0395	05/07/2009	08/17/2009	EW-5	10.00 in.	4.00 in.	8.00 ft	30.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and

Alameda County Public Works Agency - Water Resources Well Permit

mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
6. Minimum seal depth (Neat Cement Seal) is 2 feet below ground surface (BGS).
7. Minimum surface seal thickness is two inches of cement grout placed by tremie
8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
9. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

Monitoring Well Replacement-(Redrill)-Monitoring - 1 Wells

Driller: V&W Drilling - Lic #: 720904 - Method: auger

Work Total: \$345.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0396	05/07/2009	08/17/2009	MW-4	10.00 in.	4.00 in.	8.00 ft	30.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
3. Remove the Christy box or similar structure. Drill out & Replace with New Well
4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

Alameda County Public Works Agency - Water Resources Well Permit

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
 6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
 7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
 8. Minimum surface seal thickness is two inches of cement grout placed by tremie
 9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
 10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
 11. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
-



SPECIAL DISCHARGE PERMIT

Terms and Conditions

PERMIT NUMBER **5055380 2**

250 8th Street, Oakland

GENERAL CONDITIONS

- I. Aqua Science Engineers, Inc. (ASEI) shall comply with all items of the attached *Special Discharge Permit Standard Terms and Conditions*.
- II. ASEI shall discharge Special Discharge Wastewater only from the specific source described in the *Special Discharge Permit Terms Applicant* form. The discharge of all other wastewater must comply with EBMUD Ordinance No. 311A-03.
- III. ASEI shall immediately cease discharge of treated or managed Special Discharge Wastewater if not in compliance with any of the terms and conditions of this Special Discharge Permit.
- IV. This Special Discharge Permit is considered a waiver of EBMUD Ordinance No. 311A-03, prohibiting:
 - o Discharge of wastewater directly into a manhole or other opening into the community sewer system, contingent upon approval from the City of Oakland.
 - o Discharge of stormwater, drainage water, and groundwater to the community sewer, contingent upon compliance with Permit terms and conditions regarding those discharges.
- V. ASEI shall not discharge Special Discharge Wastewater authorized by this Special Discharge Permit after the expiration date.

COMPLIANCE REQUIREMENTS

- I. ASEI shall pretreat all wastewater, per the attached Cal Clean Dual Phase Extraction System Flow Diagram-Figure 2.
- II. ASEI shall post a sign in the work area stating "All Wastewater Discharge must comply with the Special Discharge Permit."
- III. ASEI shall not discharge to the sanitary sewer during a rain event or within 24 hours after a rain event, which is defined as any precipitation greater than a drizzle.
- IV. ASEI shall not discharge wastewater at a flow rate greater than 100 gallons per minute.
- V. All discharge shall be through a totalizing flow meter and logged with date, time, and volume of each discharge and signed by Site Manager.
- VI. ASEI is responsible for obtaining local permits for use of manholes or cleanouts for discharge.
- VII. ASEI shall obtain approval if required from the City of Oakland for the side sewer discharge location through which the special discharge wastewater is to be discharged, and shall comply with the terms and conditions set by this public agency owning the sanitary sewer system at the subject location.

WASTEWATER DISCHARGE LIMITS

ASEI shall not discharge Special Discharge Wastewater into the community sewer if the strength of the wastewater exceeds:

- Benzene = 5 µg/L; Toluene = 5 µg/L; Ethylbenzene = 5 µg/L; Total Xylenes = 5 µg/L
- EBMUD Ordinance No. 311A-03 Wastewater Discharge Limits

MONITORING REQUIREMENTS

ASEI shall take a representative sample of the first batch of treated effluent and analyze for BTEX and total lead. Analytical data shall be sent to M. Ninayahuar for **EBMUD approval prior to the first discharge.** Data may be sent by facsimile to (510) 287-0621 or by electronic mail to mninayah@ebmud.com.

REPORTING REQUIREMENTS

ASEI shall submit to EBMUD a discharge log including dates, times, volumes, and signature of Site Manager. The report is due within 10 days after the final discharge or by the permit expiration date, whichever comes first.

INSPECTIONS

The District may conduct random, unannounced inspections to verify compliance with the terms and conditions of this Special Discharge Permit. ASEI shall grant District personnel access to the facility and discharge logs to conduct inspections and collect Special Discharge Wastewater samples.



SPECIAL DISCHARGE PERMIT

Terms and Conditions

PERMIT NUMBER 5055380 2

250 8th Street, Oakland

ENFORCEMENT AND PENALTIES

Failure to comply with the terms and conditions of this Special Discharge Permit and *Special Discharge Permit Standard Terms and Conditions* may result in enforcement actions, including violation follow-up fees, civil enforcement penalties, and administrative fines of up to \$5,000 per day.

RATES AND CHARGES

This Special Discharge Permit may be amended to include changes to rates and charges that may be established by the District during the term of this Special Discharge Permit. The discharge shall be charged \$0.02 per gallon for the entire volume of discharge and the permit fee is \$945.

AUTHORIZATION

Special Discharger ASEI is hereby authorized to discharge Special Discharge Wastewater to the community sewer, subject to compliance with EBMUD Ordinance No. 311A-03, Special Discharge Permit Terms and Conditions, and billing conditions.

Effective: July 13, 2009

Expiration: January 13, 2010

A handwritten signature in cursive script that reads "David R. Williams".

Director, Wastewater Department

A handwritten date in cursive script that reads "6/27/09".

Date



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX B

SOIL BORING AND WELL COMPLETION LOGS FOR EXTRACTION WELLS

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

Well: EW-1

Project Name: Lim Family Property

Project Location: 250 8th Street, Oakland, CA

Page 1 of 1

Driller: V&W Drilling

Type of Rig: Hollow-Stem Auger

Size of Drill: 10.0" Diameter

Logged By: Robert Kitay, P.G.

Date Drilled: May 19, 2009

Checked By: Robert Kitay, P.G.

WATER AND WELL DATA

Total Depth of Well Completed: 30'

Depth of Water First Encountered: 19'

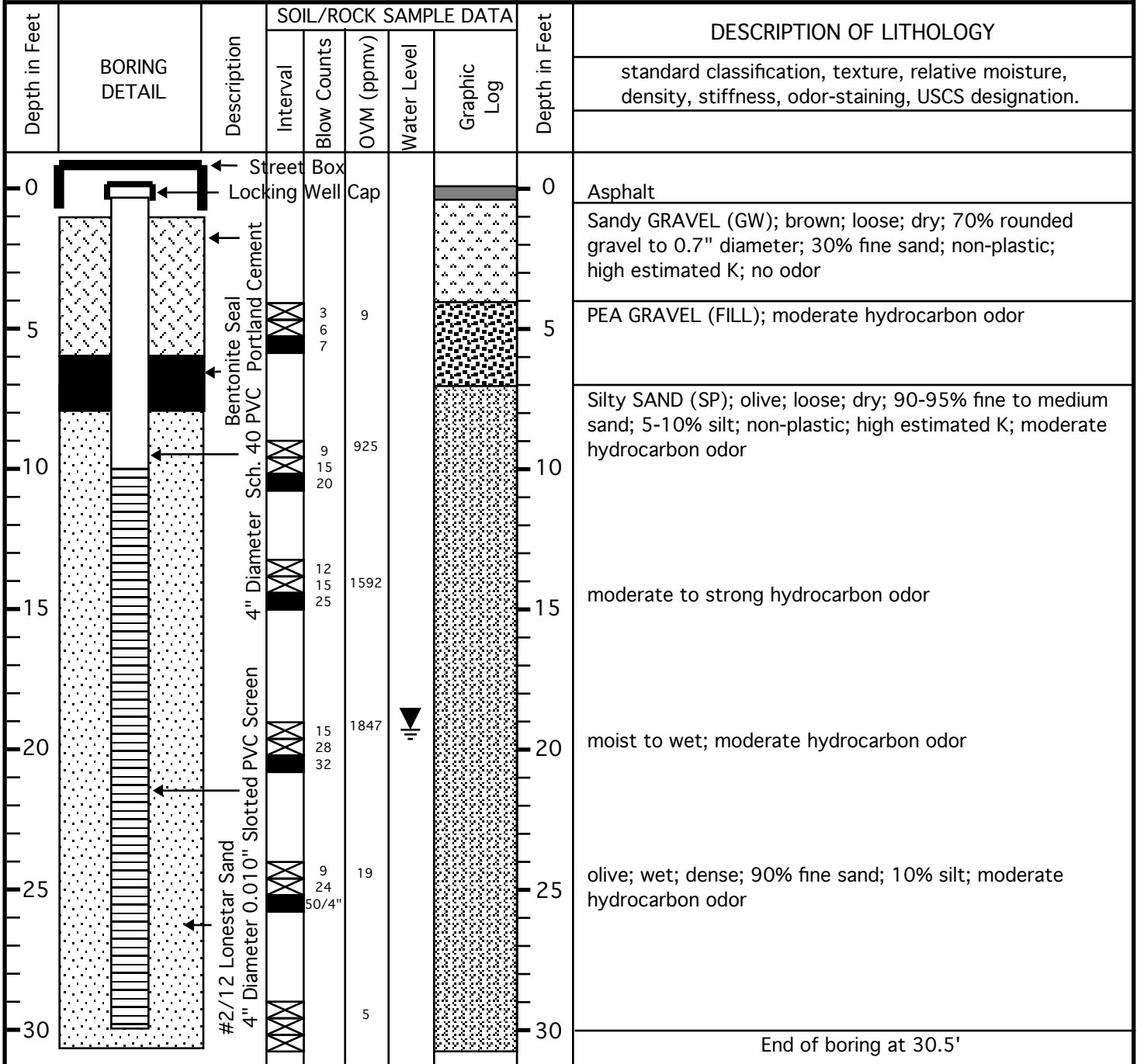
Well Screen Type and Diameter: 4" Diameter Sch. 40 PVC

Static Depth of Water in Well: NA

Well Screen Slot Size: 0.010"

Total Depth of Boring: 30.5'

Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel



SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

Well: EW-2

Project Name: Lim Family Property

Project Location: 250 8th Street, Oakland, CA

Page 1 of 1

Driller: V&W Drilling

Type of Rig: Hollow-Stem Auger

Size of Drill: 10.0" Diameter

Logged By: Robert Kitay, P.G.

Date Drilled: May 19, 2009

Checked By: Robert Kitay, P.G.

WATER AND WELL DATA

Total Depth of Well Completed: 30'

Depth of Water First Encountered: 19'

Well Screen Type and Diameter: 4" Diameter Sch. 40 PVC

Static Depth of Water in Well: NA

Well Screen Slot Size: 0.010"

Total Depth of Boring: 30.5'

Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
			Interval	Blow Counts	OVM (ppmv)	Water Level		
0	Street Box Locking Well Cap						0	Asphalt
0-5		Bentonite Seal Portland Cement	3 5 8		3.4		0-5	Sandy GRAVEL (GW); yellow brown; loose; dry; 70% rounded gravel to 0.7" diameter; 30% fine sand; non-plastic; high estimated K; no odor
5-10		4" Diameter Sch. 40 PVC	4 5 6				5-10	PEA GRAVEL (FILL); grey; no odor no recovery; appears to still be pea gravel
10-15		4" Diameter Sch. 40 PVC Screen	3 2 3		76		10-15	pea gravel; slight hydrocarbon odor
15-20			2 2 2				15-20	no recovery; pea gravel suspected; wet with strong hydrocarbon odor on water
20-25		#2/12 Lonestar Sand 4" Diameter 0.010" Slotted PVC Screen	9 11 22		1242		20-25	pea gravel
25-30			15 50/6"		544		25-30	Silty SAND (SM); olive; medium dense; wet; 60-70% fine sand; 30-40% silt; non-plastic; high estimated K; strong hydrocarbon odor 90% medium to coarse sand; 10% silt; moderate hydrocarbon odor at 29'
30							30	End of boring at 30.5'

SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

Well: EW-3

Project Name: Lim Family Property

Project Location: 250 8th Street, Oakland, CA

Page 1 of 1

Driller: V&W Drilling

Type of Rig: Hollow-Stem Auger

Size of Drill: 10.0" Diameter

Logged By: Robert Kitay, P.G.

Date Drilled: May 19, 2009

Checked By: Robert Kitay, P.G.

WATER AND WELL DATA

Total Depth of Well Completed: 30'

Depth of Water First Encountered: 21'

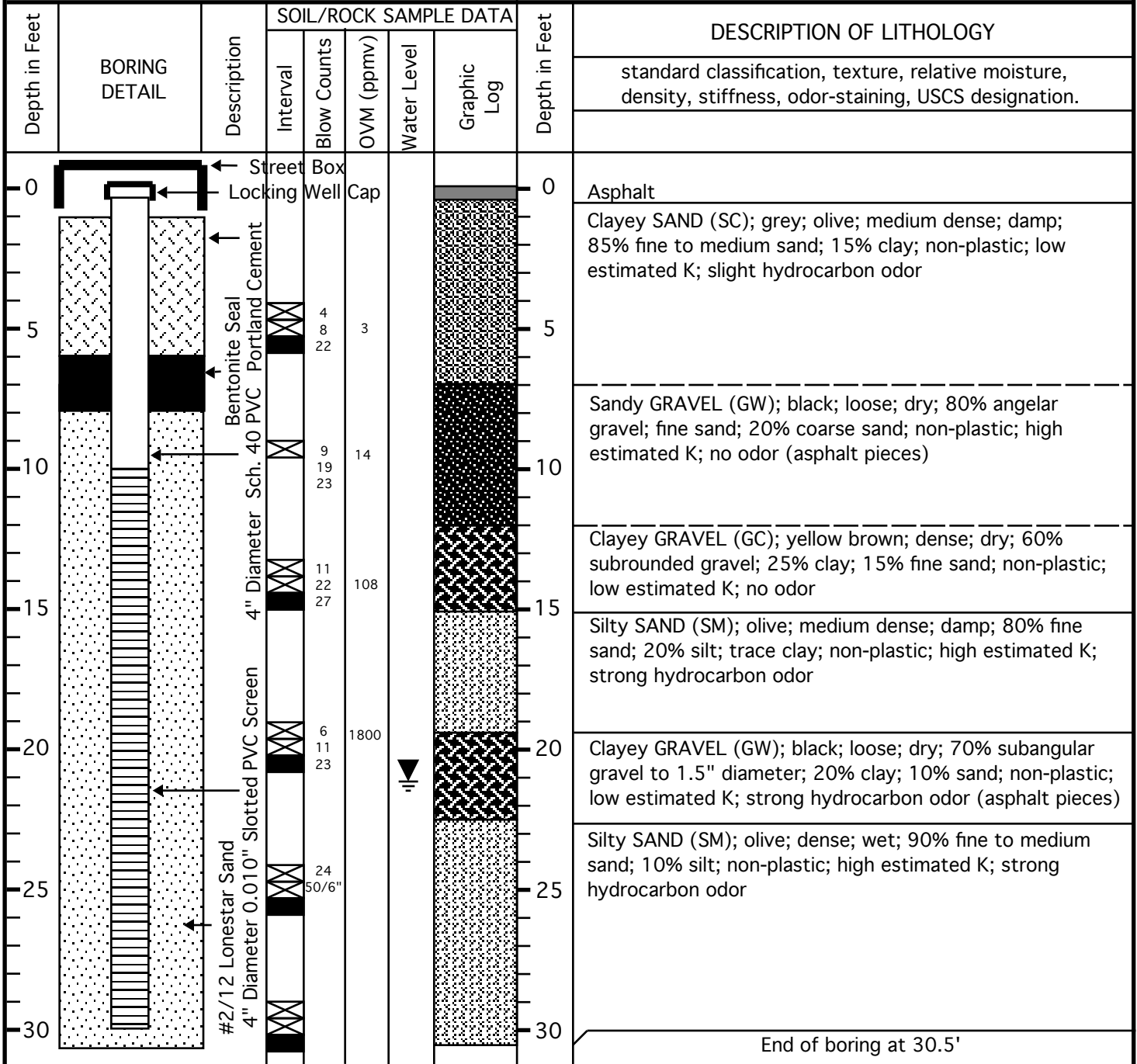
Well Screen Type and Diameter: 4" Diameter Sch. 40 PVC

Static Depth of Water in Well: NA

Well Screen Slot Size: 0.010"

Total Depth of Boring: 30.5'

Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel



SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

Well: EW-4

Project Name: Lim Family Property

Project Location: 250 8th Street, Oakland, CA

Page 1 of 1

Driller: V&W Drilling

Type of Rig: Hollow-Stem Auger

Size of Drill: 10.0" Diameter

Logged By: Robert Kitay, P.G.

Date Drilled: May 19, 2009

Checked By: Robert Kitay, P.G.

WATER AND WELL DATA

Total Depth of Well Completed: 30'

Depth of Water First Encountered: 21'

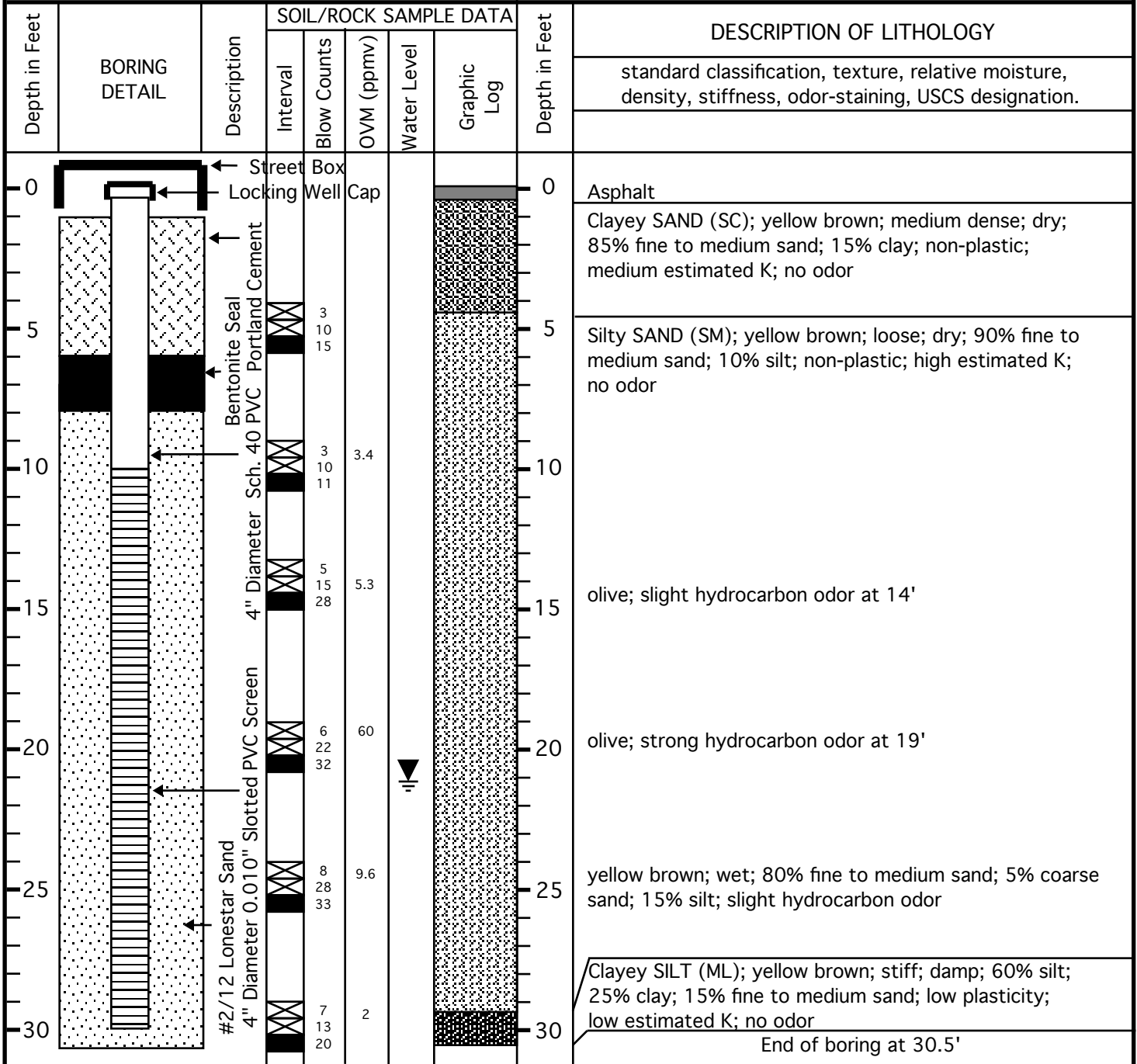
Well Screen Type and Diameter: 4" Diameter Sch. 40 PVC

Static Depth of Water in Well: NA

Well Screen Slot Size: 0.010"

Total Depth of Boring: 30.5'

Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel



SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

Well: EW-5

Project Name: Lim Family Property

Project Location: 250 8th Street, Oakland, CA

Page 1 of 1

Driller: V&W Drilling

Type of Rig: Hollow-Stem Auger

Size of Drill: 10.0" Diameter

Logged By: Robert Kitay, P.G.

Date Drilled: May 19, 2009

Checked By: Robert Kitay, P.G.

WATER AND WELL DATA

Total Depth of Well Completed: 30'

Depth of Water First Encountered: 21'

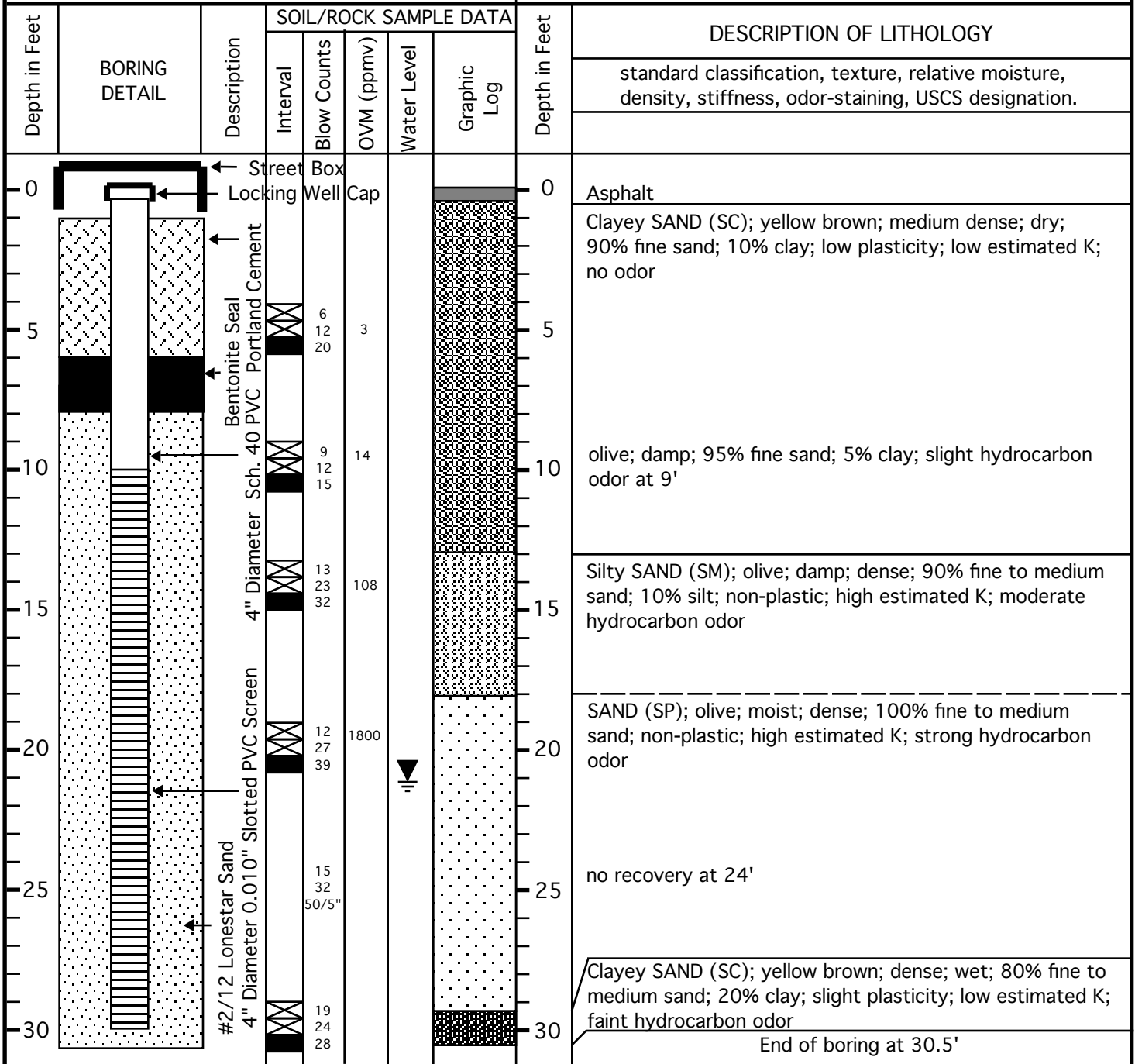
Well Screen Type and Diameter: 4" Diameter Sch. 40 PVC

Static Depth of Water in Well: NA

Well Screen Slot Size: 0.010"

Total Depth of Boring: 30.5'

Type and Size of Soil Sampler: 2.0" I.D. Split-Barrel



SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS

Well: MW-4R

Project Name: Lim Family Property

Project Location: 250 8th Street, Oakland, CA

Page 1 of 1

Driller: V & W Drilling

Type of Rig: Hollow-Stem Auger

Size of Drill: 10.0" Diameter

Logged By: Robert Kitay

Date Drilled: May 19, 2009

Checked By: Robert E. Kitay, P.G.

WATER AND WELL DATA

Total Depth of Well Completed: 27'

Depth of Water First Encountered: 21'

Well Screen Type and Diameter: 4" diameter sch. 40 PVC

Static Depth of Water in Well: NA

Well Screen Slot Size: 0.010" diameter

Total Depth of Boring: 30'

Type and Size of Soil Sampler: 2.0" I.D. Split-barrel

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA					Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Counts	OVM (ppmv)	Water Level	Graphic Log		standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
<p>NOTE: SOIL LITHOLOGY BASED ON MW-4 LOG FROM 1/2000</p>									
0		Street Box Locking Well Cap						0	Concrete
5		bentonite seal Portland Cement						5	Silty SAND (SM); orange brown; damp; stiff; 60% fine sand; 40% silt; non-plastic; medium estimated K; no odor
10		4" diameter sch. 40 PVC						10	Sandy SILT (ML); orange brown and olive; damp; stiff; 70% silt; 30% fine sand; non-plastic; medium estimated K; slight hydrocarbon odor
15		#2/12 Lonestar Sand						15	olive; moist; stiff; non-plastic; medium estimated K; strong hydrocarbon odor
20		0.010" diameter screen						20	
25								25	Silty SAND (SM); olive; wet; stiff; 70% fine sand; 30% silt; non-plastic; high estimated K; moderate hydrocarbon odor
30								30	End of boring at 30'



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX C

CALCLEAN 2009 DPE REPORT

CALCLEAN INC.

"A Partner in Protecting California's Waters"

September 18, 2009

Aqua Science Engineers, Inc.
55 Oak Court, Suite 220
Danville, CA 94526

ATTN: MR. DAVID ALLEN

SITE: LIM PROPERTY GAS STATION
250 8TH STREET
OAKLAND, CALIFORNIA

RE: HIGH VACUUM DUAL PHASE EXTRACTION REPORT

Dear Mr. Allen:

CalClean Inc. is submitting this High Vacuum Dual Phase Extraction Report for the above referenced site. This report includes all activities performed from August 3 to September 4, 2009.

From August 3 to September 4, 2009, CalClean performed a 32-day high vacuum dual phase extraction (HVDPE) event on several onsite and offsite wells using a low-noise, truck-mounted 450-CFM high-vacuum liquid ring blower along with a Bay Area Air Quality Management District (BAAQMD) various locations permitted propane-fired thermal oxidizer (Plant No. 12568). This technology allows hydrocarbons to be simultaneously removed from the vadose zone, capillary fringe, and saturated soil zone. A high vacuum was applied for vapor extraction and drawdown of the groundwater table around the extraction wells, while vacuum and vapor flow rates were modified to optimize recovery of vapor, free-product (if any) and dissolved-phase hydrocarbons.

During the event, the high vacuum dual phase extraction (HVDPE) system was simultaneously connected to wells EW-1, EW-2, EW-3, EW-4, EW-5, EW-6, IW-5, and/or MW-3. During the day, the extraction system was connected to wells on the property and on the east side of 8th Street. Each night, whenever parking space was available, the extraction system was physically transported to the west side of 8th Street and extraction was conducted in well EW-6 from approximately 10 p.m. till 5 a.m. the next morning. HVDPE activities were conducted for a total of 32 days during the HVDPE event.

Vapor samples were collected in Tedlar bags from each extraction well during the event. The laboratory results, listed in Table 1 and laboratory reports included in Attachment 1, indicate the following:

- The starting Total Petroleum Hydrocarbons as Gasoline (TPH-G) vapor concentrations for wells EW-1, EW-2, EW-3, EW-4, EW-5, EW-6, IW-5 and MW-3 were 452 ppmv, 131 ppmv, 586 ppmv, 13 ppmv, 70 ppmv, 6,440 ppmv, 5,830 ppmv, and 6,580 ppmv, respectively. The ending TPH-G vapor concentrations were 4,560 ppmv, 463 ppmv, 3,080 ppmv, 640 ppmv, 2,220 ppmv, 8,690 ppmv, 5,910 ppmv, and 6,240 ppmv, respectively. The starting and ending combined well TPH-G vapor concentrations were 7,760 ppmv and 4,540 ppmv, respectively.
- The starting Benzene vapor concentrations for wells EW-1, EW-2, EW-3, EW-4, EW-5, EW-6, IW-5 and MW-3 were 16 ppmv, 14 ppmv, 43 ppmv, 0.95 ppmv, 3.5 ppmv, 174 ppmv, 183 ppmv, and 197 ppmv, respectively. The ending Benzene vapor concentrations were 132 ppmv, 24 ppmv, 77 ppmv, 15 ppmv, 49 ppmv, 160 ppmv, 177 ppmv, and 157 ppmv, respectively. The starting and ending combined well Benzene vapor concentrations were 197 ppmv and 136 ppmv, respectively.

The total equivalent amount of hydrocarbons recovered through vapor extraction during the 32-day HVDPE event was 16,106.37 pound based on the Horiba field organic vapor analyzer data. The cumulative tabulation of recovered hydrocarbons (based on the field organic vapor analyzer data) is provided in Table 2.

The total volume of hydrocarbon-affected groundwater recovered from the extraction wells during the HVDPE event was approximately 234,070 gallons. The extracted water was treated through two 500-pound granular activated carbon vessels in series and then discharged periodically to the onsite sewer system in accordance with a permit from the East Bay Municipal Utility District.

The following attachments are included to document the HVDPE event at the site:

Table 1	Results of Laboratory Analysis of Influent Vapor Samples
Table 2	Hydrocarbon Mass Removal Spreadsheet (using Horiba Data)
Figure 1	Total Inlet HC Concentrations versus Time (32 Days, Using Horiba Data)
Figure 2	Cumulative HC Recovered over 32 Days (using Horiba Data)
Attachment 1	Laboratory Reports
Attachment 2	High Vacuum Dual Phase Extraction Field Data Sheets

High Vacuum Dual Phase Extraction Report
Lim Property Gas Station, Oakland, CA
September 18, 2009

It has been a pleasure working with you on this project. If you have any questions regarding this report, please contact us at (714) 734-9137 or via cell phone at (714) 936-2706.

Sincerely,

CALCLEAN INC.

A handwritten signature in black ink, appearing to read "Noel Sheno", written over a horizontal line.

Noel Sheno
Principal Engineer

Attachments

Table 1
RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES
 Lim Property
 Oakland, California

Sample ID	Date/Time Sampled	TPH-g (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	MtBE (ppmv)
EW-1	8/3/2009 1020	452	16	15	1.8	5.2	27
EW-1	8/23/2009 0750	7,860	288	527	78	256	360
EW-1	9/3/2009 2100	4,560	132	305	40	132	131
EW-2	8/3/2009 1120	131	14	4.6	6.4	5.4	3
EW-2	8/23/2009 0830	401	29	25	11	29	8.8
EW-2	9/3/2009 0755	463	24	47	12	38	3.7
EW-3	8/3/2009 1220	586	43	16	3.8	9.1	47
EW-3	8/13/2009 1130	453	44	72	16	53	6.6
EW-3	8/23/2009 0800	3,340	142	177	34	120	203
EW-3	9/3/2009 2040	3,080	77	159	20	65	100

Table 1
RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES
 Lim Property
 Oakland, California

Sample ID	Date/Time Sampled	TPH-g (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	MtBE (ppmv)
EW-4	8/3/2009 1320	13	0.95	1	0.74	1.3	0.31
EW-4	8/23/2009 0820	1,010	28	66	17	58	26
EW-4	9/3/2009 2030	640	15	37	8	31	12
EW-5	8/3/2009 1520	70	3.5	3.7	0.85	2.2	1.8
EW-5	8/13/2009 1140	70	1.5	5	0.94	3.5	2.4
EW-5	8/23/2009 0810	2,780	71	105	24	66	163
EW-5	9/3/2009 2050	2,220	49	69	15	42	68
EW-6	8/18/2009 2315	6,440	174	168	22	68	412
EW-6	8/28/2009 0455	6,130	175	399	43	146	193
EW-6	9/4/2009 0500	8,690	160	205	29	105	405

Table 1
RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES
 Lim Property
 Oakland, California

Sample ID	Date/Time Sampled	TPH-g (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	MtBE (ppmv)
IW-5	8/23/2009 0740	5,830	183	388	64	216	258
IW-5	9/3/2009 2010	5,910	177	446	63	233	187
MW-3	8/23/2009 0730	6,580	197	336	44	143	358
MW-3	9/3/2009 2020	6,240	157	374	41	143	199
TOTAL INLET	8/8/2009 1000	7,760	197	506	50	162	290
TOTAL INLET	8/18/2009 0800	6,610	182	423	46	156	229
TOTAL INLET	8/23/2009 0720	6,990	242	404	53	170	374
TOTAL INLET	8/28/2009 0730	5,290	154	357	46	158	156

Table 1
RESULTS OF LABORATORY ANALYSIS OF VAPOR SAMPLES
 Lim Property
 Oakland, California

Sample ID	Date/Time Sampled	TPH-g (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Total Xylenes (ppmv)	MtBE (ppmv)
TOTAL INLET	9/1/2009 1200	7,080	175	411	61	204	216
TOTAL INLET	9/3/2009 2000	4,540	136	307	38	140	136
Notes: ppmv = parts per million by volume TPH - g = total petroleum hydrocarbons - gasoline Samples analyzed by EPA 8015B / EPA 8021B MTBE = methyl tertiary butyl ether							

Table 2
HYDROCARBON MASS REMOVAL SPREADSHEET (Using Field Data)
 Lim Property, Oakland, CA

TIME	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
						System Vacuum (in of Hg)	Total System Inlet Flow (scfm) **	Influent Concentrations Post-dilution * (ppmv)	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
8/3/2009 10:00	open EW-1					24	51	4,080	4	0.00	0.00	0
8/3/2009 11:00	closed	open EW-2				24	47	720		1.60	0.26	1.60
8/3/2009 12:00		closed	open EW-3			24	52	1,015		0.58	0.09	2.19
8/3/2009 13:00			closed	open EW-4		24	47	220		0.42	0.07	2.60
8/3/2009 14:00				closed	open EW-5	24	57	350		0.20	0.03	2.80
8/3/2009 15:00			open IW-5		closed	24	53	2,560		1.09	0.17	3.89
8/3/2009 16:00		open MW-3	closed			24	56	1,120		1.37	0.22	5.26
8/3/2009 17:00						24	57	1,140		0.87	0.14	6.13
8/3/2009 18:00						24	58	1,170		0.90	0.14	7.03
8/3/2009 19:00						24	56	2,740		1.52	0.24	8.55
8/3/2009 20:00						24	57	2,830		2.14	0.34	10.69
8/3/2009 21:00		closed				24	51	2,870		2.10	0.34	12.79
8/3/2009 22:00	open EW-6					24	52	2,820		1.99	0.32	14.78
8/3/2009 23:00	27'					24	53	8,750		4.14	0.66	18.92
8/4/2009 0:00	27'					24	51	8,640		6.16	0.99	25.07
8/4/2009 1:00	27'					24	53	8,610		6.11	0.98	31.18
8/4/2009 2:00	27'					24	50	8,345		5.94	0.95	37.12
8/4/2009 4:00	27'					24	51	8,317		11.46	1.83	48.58
8/4/2009 5:00	27'					24	51	8,099		5.70	0.91	54.28
8/4/2009 6:00	27'					24	54	8,145		5.81	0.93	60.08
8/4/2009 8:00	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	180	18,500		42.44	6.79	102.53
8/4/2009 9:00		28'	28'	28'	28'	23	183	17,480		44.46	7.12	146.98
8/4/2009 10:00		28'	28'	28'	28'	23	184	16,850		42.88	6.86	189.87
8/4/2009 11:00		28'	28'	28'	28'	23	181	16,110		40.95	6.55	230.82
8/4/2009 12:00		28'	28'	28'	28'	23	185	16,220		40.28	6.45	271.09
8/4/2009 13:00		28'	28'	28'	28'	23	182	13,160		36.70	5.87	307.79
8/4/2009 13:00		28'	28'	28'	28'	23	184	15,170		0.00	0.00	307.79
8/4/2009 14:00		28'	28'	28'	28'	23	181	14,690		37.10	5.94	344.89
8/4/2009 15:00		28'	28'	28'	28'	23	180	14,440		35.79	5.73	380.68
8/4/2009 16:00		28'	28'	28'	28'	23	182	14,200		35.29	5.65	415.97

Table 2
HYDROCARBON MASS REMOVAL SPREADSHEET (Using Field Data)
 Lim Property, Oakland, CA

TIME	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
						System Vacuum (in. of Hg)	Total System Inlet Flow (scfm) **	Influent Concentrations Post-dilution * (ppmv)	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
8/4/2009 17:00		28'	28'	28'	28'	23	181	13,950		34.78	5.57	450.75
8/4/2009 18:00		28'	28'	28'	28'	23	185	13,230		33.86	5.42	484.61
8/4/2009 19:00		28'	28'	28'	28'	23	182	13,350		33.20	5.31	517.82
8/4/2009 20:00		28'	28'	28'	28'	23	183	13,330		33.15	5.31	550.96
8/4/2009 21:00		28'	28'	28'	28'	23	180	13,407		33.04	5.29	584.00
8/4/2009 22:00	open EW-6	closed	closed	closed	closed	23	53	7,140		16.30	2.61	600.29
8/4/2009 23:00	28'					24	51	7,210		5.08	0.81	605.37
8/5/2009 0:00	28'					24	52	6,980		4.97	0.80	610.35
8/5/2009 1:00	28'					24	50	6,870		4.81	0.77	615.16
8/5/2009 2:00	28'					24	51	6,800		4.70	0.75	619.86
8/5/2009 5:00	28'					24	52	6,810		14.31	2.29	634.17
8/5/2009 6:00	closed	open EW-1	open EW-2	open IW-5	open MW-3	24	53	6,840		4.88	0.78	639.05
8/5/2009 8:00		28'	28'	28'	28'	23	180	13,250		31.87	5.10	670.91
8/5/2009 10:00		28'	28'	28'	28'	23	181	13,300		65.25	10.44	736.16
8/5/2009 12:00		28'	28'	28'	28'	23	184	13,900		67.58	10.82	803.75
8/5/2009 14:00		28'	28'	28'	28'	23	182	15,580		73.45	11.76	877.20
8/5/2009 16:00		28'	28'	28'	28'	23	181	15,730		77.37	12.38	954.57
8/5/2009 18:00		28'	28'	28'	28'	23	182	15,360		76.83	12.30	1,031.40
8/5/2009 20:00		28'	28'	28'	28'	23	182	14,580		74.19	11.88	1,105.58
8/5/2009 22:00		28'	28'	28'	28'	23	181	13,740		69.98	11.20	1,175.57
8/6/2009 6:00		28'	28'	28'	28'	23	184	13,410		269.84	43.19	1,445.41
8/6/2009 10:00		28'	28'	28'	28'	23	182	13,220		132.70	21.24	1,578.11
8/6/2009 14:00		28'	28'	28'	28'	23	180	13,900		133.66	21.39	1,711.77
8/6/2009 18:00		28'	28'	28'	28'	23	183	12,960		132.75	21.25	1,844.52
8/7/2009 6:00		28'	28'	28'	28'	23	184	12,100		375.65	60.13	2,220.17
8/7/2009 10:00		28'	28'	28'	28'	23	182	12,350		121.84	19.50	2,342.01
8/7/2009 14:00		28'	28'	28'	28'	23	181	11,950		120.10	19.22	2,462.11
8/7/2009 18:00		28'	28'	28'	28'	23	184	12,050		119.27	19.09	2,581.37
8/7/2009 20:00	open EW-6	closed	closed	closed	closed	25	47	5,720		27.94	4.47	2,609.32
8/7/2009 23:00	27'					25	45	8,950		13.78	2.21	2,623.10

Table 2
 HYDROCARBON MASS REMOVAL SPREADSHEET (Using Field Data)
 Lim Property, Oakland, CA

TIME	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
						System Vacuum (in. of Hg)	Total System Inlet Flow (scfm) **	Influent Concentrations Post-dilution * (ppmv)	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
8/8/2009 0:00	27'					25	46	13,000		6.80	1.09	2,629.90
8/8/2009 1:00	27'					25	49	12,630		8.29	1.33	2,638.19
8/8/2009 2:00	27'					25	45	12,020		7.89	1.26	2,646.07
8/8/2009 3:00	27'					25	41	12,150		7.08	1.13	2,653.15
8/8/2009 4:00	27'					25	43	12,090		6.93	1.11	2,660.08
8/8/2009 5:00	27'					25	48	12,310		7.56	1.21	2,667.64
8/8/2009 6:00	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	182	11,200		18.41	2.95	2,686.04
8/8/2009 10:00		28'	28'	28'	28'	23	185	11,350		112.68	18.04	2,798.72
8/8/2009 14:00		28'	28'	28'	28'	23	184	12,320		118.92	19.03	2,917.63
8/8/2009 18:00		28'	28'	28'	28'	23	182	12,210		122.24	19.57	3,039.87
8/9/2009 6:00		28'	28'	28'	28'	23	180	11,530		351.02	56.19	3,390.89
8/9/2009 10:00		28'	28'	28'	28'	23	184	11,310		113.19	18.12	3,504.08
8/9/2009 14:00		28'	28'	28'	28'	23	181	11,410		112.91	18.07	3,616.98
8/9/2009 18:00		28'	28'	28'	28'	23	183	11,300		112.55	18.01	3,729.53
8/9/2009 22:00	open EW-5	closed	closed	closed	closed	25	43	10,710		67.72	10.84	3,797.26
8/9/2009 23:00	27'					25	47	12,140		7.00	1.12	3,804.26
8/10/2009 0:00	27'					25	49	13,180		8.27	1.32	3,812.53
8/10/2009 1:00	27'					25	44	15,210		8.99	1.44	3,821.52
8/10/2009 2:00	27'					25	46	14,580		9.13	1.46	3,830.64
8/10/2009 3:00	27'					25	44	15,770		9.30	1.49	3,839.94
8/10/2009 4:00	27'					25	41	16,910		9.45	1.51	3,849.39
8/10/2009 5:00	27'					25	45	16,130		9.67	1.55	3,859.07
8/10/2009 6:00	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	182	10,520		20.59	3.30	3,879.66
8/10/2009 10:00		28'	28'	28'	28'	23	181	10,610		104.43	16.72	3,984.09
8/10/2009 14:00		28'	28'	28'	28'	23	182	10,320		103.44	16.56	4,087.53
8/10/2009 18:00		28'	28'	28'	28'	23	184	10,300		102.75	16.45	4,190.28
8/11/2009 6:00		28'	28'	28'	28'	23	184	10,520		312.94	50.09	4,503.22
8/11/2009 10:00		28'	28'	28'	28'	23	182	9,870		101.61	16.26	4,604.83
8/11/2009 14:00		28'	28'	28'	28'	23	181	9,620		96.32	15.42	4,701.15
8/11/2009 18:00		28'	28'	28'	28'	23	183	9,750		95.99	15.37	4,797.15

Table 2
 HYDROCARBON MASS REMOVAL SPREADSHEET (Using Field Data)
 Lim Property, Oakland, CA

TIME	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
						System Vacuum (in of Hg)	Total System Inlet Flow (scfm) **	Influent Concentrations Post-dilution * (ppmv)	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
8/11/2009 22:00	open EW-6	closed	closed	closed	closed	25	40	10,100		60.27	9.65	4,857.41
8/11/2009 23:00	27'					25	42	10,920		5.87	0.94	4,863.28
8/12/2009 0:00	27'					25	41	11,500		6.33	1.01	4,869.62
8/12/2009 1:00	27'					25	40	12,100		6.51	1.04	4,876.12
8/12/2009 2:00	27'					25	42	12,610		6.90	1.10	4,883.02
8/12/2009 3:00	27'					25	42	12,410		7.15	1.15	4,890.17
8/12/2009 4:00	27'					25	41	14,030		7.47	1.20	4,897.64
8/12/2009 5:00	27'					25	43	13,780		7.95	1.27	4,905.59
8/12/2009 6:00	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	181	10,130		18.23	2.92	4,923.82
8/12/2009 10:00		28'	28'	28'	28'	23	183	9,890		99.22	15.88	5,023.04
8/12/2009 14:00		28'	28'	28'	28'	23	182	9,840		98.05	15.69	5,121.09
8/12/2009 18:00		28'	28'	28'	28'	23	185	10,420		101.23	16.20	5,222.32
8/13/2009 6:00		28'	28'	28'	28'	23	182	10,210		309.25	49.50	5,531.57
8/13/2009 10:00		28'	28'	28'	28'	23	181	10,730		103.49	16.57	5,635.06
8/13/2009 14:00		28'	28'	28'	28'	23	183	10,720		106.30	17.02	5,741.36
8/13/2009 18:00		28'	28'	28'	28'	23	211	10,510		113.88	18.23	5,855.24
8/13/2009 22:00	open EW-6	closed	closed	closed	closed	25	37	3,760		48.18	7.71	5,903.43
8/13/2009 23:00	27'					25	40	7,650		2.99	0.48	5,906.42
8/14/2009 0:00	27'					25	41	9,930		4.85	0.78	5,911.26
8/14/2009 1:00	27'					25	43	11,350		6.08	0.97	5,917.35
8/14/2009 2:00	27'					25	40	11,910		6.57	1.05	5,923.92
8/14/2009 3:00	27'					25	42	12,040		6.68	1.07	5,930.60
8/14/2009 4:00	27'					25	41	12,180		6.84	1.10	5,937.45
8/14/2009 5:00	27'					25	44	12,330		7.09	1.14	5,944.54
8/14/2009 6:00	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	212	6,580		16.48	2.64	5,961.02
8/14/2009 10:00		28'	28'	28'	28'	23	214	6,290		74.65	11.95	6,035.66
8/14/2009 14:00		28'	28'	28'	28'	23	215	6,500		74.70	11.96	6,110.37
8/14/2009 18:00		28'	28'	28'	28'	23	216	6,720		77.58	12.42	6,187.94
8/14/2009 23:00	open EW-6	closed	closed	closed	closed	25	40	11,900		81.12	12.98	6,269.06
8/15/2009 0:00	27'					25	41	12,330		6.68	1.07	6,275.75

Table 2
HYDROCARBON MASS REMOVAL SPREADSHEET (Using Field Data)
 Lim Property, Oakland, CA

TIME	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
						System Vacuum (in. of Hg)	Total System Inlet Flow (scfm) **	Influent Concentrations Post-dilution * (ppmv)	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
8/15/2009 1:00	27'					25	42	12,690		7.07	1.13	6,282.81
8/15/2009 2:00	27'					25	43	12,600		7.32	1.17	6,290.13
8/15/2009 3:00	27'					25	41	12,750		7.25	1.16	6,297.38
8/15/2009 4:00	27'					25	41	12,800		7.13	1.14	6,304.51
8/15/2009 5:00	27'					25	40	12,740		7.04	1.13	6,311.55
8/15/2009 6:00	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	217	6,230		16.59	2.66	6,328.15
8/15/2009 10:00		28'	28'	28'	28'	23	212	10,690		98.83	15.82	6,426.97
8/15/2009 14:00		28'	28'	28'	28'	23	211	10,200		120.31	19.26	6,547.28
8/15/2009 18:00		28'	28'	28'	28'	23	213	10,420		119.03	19.05	6,666.32
8/16/2009 6:00		28'	28'	28'	28'	23	210	11,620		380.79	60.95	7,047.11
8/16/2009 10:00		28'	28'	28'	28'	23	215	11,550		134.07	21.46	7,181.18
8/16/2009 14:00		28'	28'	28'	28'	23	220	11,220		134.86	21.59	7,316.04
8/16/2009 18:00		28'	28'	28'	28'	23	218	11,520		135.61	21.71	7,451.64
8/16/2009 23:00	open EW-6	closed	closed	closed	closed	25	40	11,170		99.63	15.95	7,551.27
8/17/2009 0:00	27'					25	37	14,130		6.63	1.06	7,557.90
8/17/2009 1:00	27'					25	42	14,980		7.83	1.25	7,565.73
8/17/2009 2:00	27'					25	40	15,360		8.47	1.36	7,574.20
8/17/2009 3:00	27'					25	41	14,910		8.35	1.34	7,582.54
8/17/2009 4:00	27'					25	40	14,870		8.21	1.31	7,590.75
8/17/2009 5:00	27'					25	40	14,950		8.12	1.30	7,598.87
8/17/2009 6:00	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	210	9,570		20.86	3.34	7,619.74
8/17/2009 10:00		28'	28'	28'	28'	23	210	8,120		101.16	16.19	7,720.89
8/17/2009 14:00		28'	28'	28'	28'	23	213	12,070		116.28	18.61	7,837.17
8/17/2009 18:00		28'	28'	28'	28'	23	218	9,380		125.87	20.15	7,963.04
8/18/2009 6:00		28'	28'	28'	28'	23	220	8,990		328.64	52.60	8,291.68
8/18/2009 10:00		28'	28'	28'	28'	23	215	8,560		103.94	16.64	8,395.62
8/18/2009 14:00		28'	28'	28'	28'	23	210	10,180		108.44	17.36	8,504.06
8/18/2009 18:00		28'	28'	28'	28'	23	217	12,850		133.89	21.43	8,637.95
8/18/2009 23:00	open EW-6	closed	closed	closed	closed	25	43	11,350		107.08	17.14	8,745.03
8/19/2009 0:00	27'					25	47	12,470		7.30	1.17	8,752.33

Table 2
 HYDROCARBON MASS REMOVAL SPREADSHEET (Using Field Data)
 Lim Property, Oakland, CA

TIME	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
						System Vacuum (in of Hg)	Total System Inlet Flow (scfm) **	Influent Concentrations Post-dilution * (ppmv)	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
8/19/2009 1:00	27'					25	45	15,130		8.64	1.38	8,760.97
8/19/2009 2:00	27'					25	48	16,910		10.14	1.62	8,771.11
8/19/2009 3:00	27'					25	46	15,780		10.46	1.67	8,781.57
8/19/2009 6:00	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	213	5,810		57.10	9.14	8,838.67
8/19/2009 10:00		28'	28'	28'	28'	23	215	6,550		72.02	11.53	8,910.69
8/19/2009 14:00		28'	28'	28'	28'	23	213	8,040		85.02	13.61	8,995.71
8/19/2009 18:00		28'	28'	28'	28'	23	217	7,930		93.50	14.97	9,089.21
8/20/2009 8:00		28'	28'	28'	28'	23	215	9,800		364.99	58.42	9,454.20
8/20/2009 12:00		28'	28'	28'	28'	23	216	8,750		108.85	17.42	9,563.05
8/20/2009 16:00		28'	28'	28'	28'	23	215	8,400		100.64	16.11	9,663.69
8/20/2009 20:00		28'	28'	28'	28'	23	211	8,490		97.96	15.68	9,761.65
8/20/2009 22:00	open EW-6	closed	closed	closed	closed	25	41	14,710		39.80	6.37	9,801.45
8/20/2009 23:00	27'					25	43	13,930		8.19	1.31	9,809.64
8/21/2009 0:00	27'					25	44	14,230		8.34	1.33	9,817.97
8/21/2009 1:00	27'					25	45	14,740		8.78	1.40	9,826.75
8/21/2009 2:00	27'					25	48	14,970		9.40	1.51	9,836.16
8/21/2009 3:00	27'					25	44	15,640		9.59	1.53	9,845.74
8/21/2009 4:00	27'					25	41	16,770		9.38	1.50	9,855.12
8/21/2009 5:00	27'					25	45	16,320		9.69	1.55	9,864.80
8/21/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	217	9,740		34.86	5.58	9,899.66
8/21/2009 8:00		28'	28'	28'	28'	23	215	8,050		39.24	6.28	9,938.90
8/21/2009 12:00		28'	28'	28'	28'	23	216	7,000		88.31	14.14	10,027.22
8/21/2009 16:00		28'	28'	28'	28'	23	215	9,020		94.01	15.05	10,121.22
8/21/2009 20:00		28'	28'	28'	28'	23	217	8,340		102.11	16.34	10,223.33
8/21/2009 22:00	open EW-6	closed	closed	closed	closed	25	43	11,730		35.52	5.69	10,258.85
8/21/2009 23:00	27'					25	46	10,140		6.63	1.06	10,265.48
8/22/2009 0:00	27'					25	43	10,980		6.40	1.02	10,271.87
8/22/2009 1:00	27'					25	44	11,320		6.60	1.06	10,278.48
8/22/2009 2:00	27'					25	41	12,110		6.78	1.09	10,285.26
8/22/2009 3:00	27'					25	45	14,710		7.85	1.26	10,293.11

Table 2
HYDROCARBON MASS REMOVAL SPREADSHEET (Using Field Data)
 Lim Property, Oakland, CA

TIME	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
						System Vacuum (in. of Hg)	Total System Inlet Flow (scfm) **	Influent Concentrations Post-dilution * (ppmv)	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
8/22/2009 4:00	27'					25	48	14,240		9.16	1.47	10,302.27
8/22/2009 5:00	27'					25	44	15,310		9.25	1.48	10,311.52
8/22/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	13	7,420		6.61	1.06	10,318.14
8/22/2009 8:00		28'	28'	28'	28'	23	215	7,340		17.18	2.75	10,335.32
8/22/2009 12:00		28'	28'	28'	28'	23	214	9,300		97.19	15.56	10,432.51
8/22/2009 16:00		28'	28'	28'	28'	23	215	9,610		110.45	17.68	10,542.96
8/22/2009 20:00		28'	28'	28'	28'	23	217	9,470		112.22	17.96	10,655.19
8/22/2009 22:00	open EW-6	closed	closed	closed	closed	25	41	9,690		33.65	5.39	10,688.84
8/22/2009 23:00	27'					25	43	11,390		6.03	0.96	10,694.86
8/23/2009 0:00	27'					25	42	13,170		7.11	1.14	10,701.97
8/23/2009 1:00	27'					25	46	14,110		8.17	1.31	10,710.14
8/23/2009 2:00	27'					25	44	14,520		8.77	1.40	10,718.91
8/23/2009 3:00	27'					25	43	14,280		8.53	1.37	10,727.44
8/23/2009 4:00	27'					25	41	13,970		8.08	1.29	10,735.52
8/23/2009 5:00	27'					25	47	13,320		8.17	1.31	10,743.69
8/23/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	212	8,310		28.60	4.58	10,772.29
8/23/2009 8:00		28'	28'	28'	28'	23	215	8,510		36.67	5.87	10,808.96
8/23/2009 12:00		28'	28'	28'	28'	23	214	8,950		101.98	16.32	10,910.94
8/23/2009 16:00		28'	28'	28'	28'	23	215	7,400		95.50	15.29	11,006.44
8/23/2009 20:00		28'	28'	28'	28'	23	218	8,190		91.91	14.71	11,098.35
8/23/2009 22:00	open EW-6	closed	closed	closed	closed	25	48	11,140		35.00	5.60	11,133.35
8/23/2009 23:00	27'					25	43	10,520		6.71	1.07	11,140.06
8/24/2009 0:00	27'					25	41	10,130		5.90	0.95	11,145.96
8/24/2009 1:00	27'					25	44	10,270		5.90	0.94	11,151.87
8/24/2009 2:00	27'					25	42	10,480		6.07	0.97	11,157.94
8/24/2009 3:00	27'					25	47	9,970		6.19	0.99	11,164.14
8/24/2009 4:00	27'					25	45	10,320		6.35	1.02	11,170.49
8/24/2009 5:00	27'					25	46	10,140		6.34	1.01	11,176.83
8/24/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	211	7,210		22.77	3.64	11,199.59
8/24/2009 8:00		28'	28'	28'	28'	23	214	7,940		32.87	5.26	11,232.47

Table 2
HYDROCARBON MASS REMOVAL SPREADSHEET (Using Field Data)
 Lim Property, Oakland, CA

TIME	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
						System Vacuum (in of Hg)	Total System Inlet Flow (scfm)**	Influent Concentrations Post-dilution* (ppmv)	Effluent Concentrations (ppmv)*	(lbs)	(gal)	(Cumul. lbs)
8/24/2009 12:00		28'	28'	28'	28'	23	215	9,150		99.82	15.98	11,332.29
8/24/2009 16:00		28'	28'	28'	28'	23	217	9,270		108.34	17.34	11,440.63
8/24/2009 20:00	open EW-6	closed	closed	closed	closed	23	219	9,820		113.32	18.14	11,553.95
8/24/2009 22:00	27'					25	41	9,810		34.74	5.56	11,588.69
8/24/2009 23:00	27'					25	44	10,230		5.80	0.93	11,594.49
8/25/2009 0:00	27'					25	43	10,480		6.13	0.98	11,600.62
8/25/2009 1:00	27'					25	47	10,970		6.57	1.05	11,607.19
8/25/2009 2:00	27'					25	45	10,530		6.73	1.08	11,613.93
8/25/2009 3:00	27'					25	46	10,210		6.42	1.03	11,620.35
8/25/2009 4:00	27'					25	49	10,980		6.85	1.10	11,627.20
8/25/2009 5:00	27'					25	48	11,320		7.36	1.18	11,634.56
8/25/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	216	9,120		27.55	4.41	11,662.12
8/25/2009 8:00		28'	28'	28'	28'	23	215	9,610		41.22	6.60	11,703.33
8/25/2009 12:00		28'	28'	28'	28'	23	217	10,460		118.05	18.89	11,821.38
8/25/2009 16:00		28'	28'	28'	28'	23	216	10,270		122.21	19.56	11,943.59
8/25/2009 20:00	open EW-6	closed	closed	closed	closed	23	215	9,980		118.83	19.02	12,062.41
8/25/2009 22:00	27'					25	43	8,470		32.40	5.19	12,094.82
8/25/2009 23:00	27'					25	47	9,810		5.60	0.90	12,100.42
8/26/2009 0:00	27'					25	46	9,140		6.00	0.96	12,106.42
8/26/2009 1:00	27'					25	44	9,320		5.65	0.91	12,112.07
8/26/2009 2:00	27'					25	41	9,770		5.52	0.88	12,117.59
8/26/2009 3:00	27'					25	45	10,230		5.85	0.94	12,123.45
8/26/2009 4:00	27'					25	46	11,410		6.70	1.07	12,130.15
8/26/2009 5:00	27'					25	43	10,990		6.79	1.09	12,136.94
8/26/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	211	8,730		25.57	4.09	12,162.51
8/26/2009 8:00		28'	28'	28'	28'	23	214	8,310		36.97	5.92	12,199.49
8/26/2009 12:00		28'	28'	28'	28'	23	213	9,450		103.25	16.53	12,302.74
8/26/2009 16:00		28'	28'	28'	28'	23	215	9,700		111.59	17.86	12,414.33
8/26/2009 20:00		28'	28'	28'	28'	23	217	9,240		111.40	17.83	12,525.73
8/26/2009 22:00		28'	28'	28'	28'	25	43	8,470		31.35	5.02	12,557.07

Table 2
HYDROCARBON MASS REMOVAL SPREADSHEET (Using Field Data)
 Lim Property, Oakland, CA

TIME	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
						System Vacuum (In of Hg)	Total System Inlet Flow (scfm) **	Influent Concentrations Post-dilution * (ppmv)	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
8/27/2009 8:00		28'	28'	28'	28'	23	215	8,450		148.59	23.78	12,705.66
8/27/2009 12:00		28'	28'	28'	28'	23	216	6,430		87.32	13.98	12,792.97
8/27/2009 16:00		28'	28'	28'	28'	23	215	6,880		78.10	12.50	12,871.08
8/27/2009 20:00	open EW-6	closed	closed	closed	closed	23	216	7,120		82.15	13.15	12,953.23
8/27/2009 22:00	27'					25	47	9,320		29.43	4.71	12,982.66
8/27/2009 23:00	27'					25	49	9,740		6.23	1.00	12,988.89
8/28/2009 0:00	27'					25	43	9,940		6.16	0.99	12,995.06
8/28/2009 1:00	27'					25	44	9,830		5.85	0.94	13,000.91
8/28/2009 2:00	27'					25	41	9,620		5.63	0.90	13,006.54
8/28/2009 3:00	27'					25	49	9,790		5.95	0.95	13,012.48
8/28/2009 4:00	27'					25	47	9,640		6.35	1.02	13,018.83
8/28/2009 5:00	27'					25	44	9,980		6.08	0.97	13,024.91
8/28/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	214	6,140		21.23	3.40	13,046.14
8/28/2009 8:00		28'	28'	28'	28'	23	216	7,700		30.38	4.86	13,076.53
8/28/2009 12:00		28'	28'	28'	28'	23	215	8,200		93.30	14.93	13,169.83
8/28/2009 16:00		28'	28'	28'	28'	23	217	9,130		101.93	16.32	13,271.76
8/28/2009 20:00	open EW-6	closed	closed	closed	closed	23	219	8,710		105.90	16.95	13,377.66
8/28/2009 22:00	27'					25	46	7,210		28.72	4.60	13,406.38
8/28/2009 23:00	27'					25	45	8,740		4.94	0.79	13,411.32
8/29/2009 0:00	27'					25	43	9,310		5.41	0.87	13,416.73
8/29/2009 1:00	27'					25	41	9,190		5.29	0.85	13,422.02
8/29/2009 2:00	27'					25	42	9,470		5.27	0.84	13,427.29
8/29/2009 3:00	27'					25	41	9,530		5.37	0.86	13,432.66
8/29/2009 4:00	27'					25	47	9,380		5.66	0.91	13,438.32
8/29/2009 5:00	27'					25	46	9,720		6.05	0.97	13,444.37
8/29/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	215	6,900		22.15	3.54	13,466.51
8/29/2009 8:00		28'	28'	28'	28'	23	214	7,100		30.66	4.91	13,497.18
8/29/2009 12:00		28'	28'	28'	28'	23	215	7,710		86.50	13.85	13,583.68
8/29/2009 16:00		28'	28'	28'	28'	23	216	7,890		91.54	14.65	13,675.22
8/29/2009 20:00	open EW-6	closed	closed	closed	closed	23	214	8,230		94.37	15.11	13,769.60

Table 2
HYDROCARBON MASS REMOVAL SPREADSHEET (Using Field Data)
 Lim Property, Oakland, CA

TIME	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
						System Vacuum (in. of Hg)	Total System Inlet Flow (scfm) **	Influent Concentrations Post-dilution * (ppmv)	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
8/29/2009 22:00	27'					25	44	8,320		29.07	4.65	13,798.66
8/29/2009 23:00	27'					25	42	9,110		5.10	0.82	13,803.77
8/30/2009 0:00	27'					25	41	9,940		5.38	0.86	13,809.15
8/30/2009 1:00	27'					25	47	10,210		6.04	0.97	13,815.18
8/30/2009 2:00	27'					25	43	10,130		6.23	1.00	13,821.41
8/30/2009 3:00	27'					25	49	9,950		6.29	1.01	13,827.70
8/30/2009 4:00	27'					25	46	9,810		6.39	1.02	13,834.09
8/30/2009 5:00	27'					25	42	9,700		5.84	0.94	13,839.93
8/30/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	217	7,740		23.06	3.69	13,863.00
8/30/2009 8:00		28'	28'	28'	28'	23	219	7,530		33.99	5.44	13,896.99
8/30/2009 12:00		28'	28'	28'	28'	23	216	9,800		102.64	16.43	13,999.63
8/30/2009 16:00		28'	28'	28'	28'	23	218	10,700		121.13	19.39	14,120.76
8/30/2009 20:00	open EW-6	closed	closed	closed	closed	23	215	10,880		127.22	20.36	14,247.98
8/30/2009 22:00	27'					25	44	8,710		34.54	5.53	14,282.52
8/30/2009 23:00	27'					25	47	9,310		5.58	0.89	14,288.10
8/31/2009 0:00	27'					25	43	9,740		5.84	0.93	14,293.94
8/31/2009 1:00	27'					25	45	9,630		5.80	0.93	14,299.74
8/31/2009 2:00	27'					25	41	9,770		5.68	0.91	14,305.42
8/31/2009 3:00	27'					25	43	9,680		5.56	0.89	14,310.98
8/31/2009 4:00	27'					25	47	9,590		5.90	0.94	14,316.88
8/31/2009 5:00	27'					25	44	9,790		6.00	0.96	14,322.88
8/31/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	217	9,420		25.60	4.10	14,348.48
8/31/2009 8:00		28'	28'	28'	28'	23	216	10,500		44.04	7.05	14,392.52
8/31/2009 12:00		28'	28'	28'	28'	23	217	8,740		113.43	18.16	14,505.95
8/31/2009 16:00		28'	28'	28'	28'	23	215	9,410		106.75	17.09	14,612.70
8/31/2009 20:00	open EW-6	closed	closed	closed	closed	23	216	9,670		111.96	17.92	14,724.66
8/31/2009 22:00	27'					25	46	8,900		33.12	5.30	14,757.78
8/31/2009 23:00	27'					25	42	9,260		5.44	0.87	14,763.22
9/1/2009 0:00	27'					25	42	9,690		5.42	0.87	14,768.64
9/1/2009 1:00	27'					25	44	9,590		5.64	0.90	14,774.28

Table 2
HYDROCARBON MASS REMOVAL SPREADSHEET (Using Field Data)
 Lim Property, Oakland, CA

TIME	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	Extraction Well # (Stinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
						System Vacuum (in. of Hg)	Total System Inlet Flow (scfm) **	Influent Concentrations Post-dilution * (ppmv)	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
9/1/2009 2:00	27'					25	43	9,420		5.63	0.90	14,779.91
9/1/2009 3:00	27'					25	41	9,540		5.42	0.87	14,785.33
9/1/2009 4:00	27'					25	44	9,510		5.51	0.88	14,790.84
9/1/2009 5:00	27'					25	45	9,480		5.75	0.92	14,796.60
9/1/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	210	9,150		24.26	3.88	14,820.85
9/1/2009 8:00		28'	28'	28'	28'	23	215	9,100		39.60	6.34	14,860.45
9/1/2009 12:00		28'	28'	28'	28'	23	216	9,810		110.97	17.76	14,971.42
9/1/2009 16:00		28'	28'	28'	28'	23	215	10,660		120.12	19.23	15,091.54
9/1/2009 20:00	open EW-6	closed	closed	closed	closed	23	211	8,620		111.82	17.90	15,203.36
9/1/2009 22:00	27'					25	42	8,310		29.16	4.67	15,232.52
9/1/2009 23:00	27'					25	44	8,290		4.86	0.78	15,237.38
9/2/2009 0:00	27'					25	43	8,240		4.89	0.78	15,242.27
9/2/2009 1:00	27'					25	45	8,270		4.95	0.79	15,247.22
9/2/2009 2:00	27'					25	44	9,500		5.38	0.86	15,252.60
9/2/2009 3:00	27'					25	47	10,154		6.09	0.97	15,258.69
9/2/2009 4:00	27'					25	43	11,465		6.62	1.06	15,265.31
9/2/2009 5:00	27'					25	45	12,400		7.15	1.14	15,272.46
9/2/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	216	7,000		25.85	4.14	15,298.31
9/2/2009 8:00		28'	28'	28'	28'	23	217	7,180		31.35	5.02	15,329.66
9/2/2009 12:00		28'	28'	28'	28'	23	218	7,740		88.36	14.14	15,418.02
9/2/2009 16:00		28'	28'	28'	28'	23	216	8,210		94.25	15.09	15,512.27
9/2/2009 20:00	open EW-6	closed	closed	closed	closed	23	218	8,340		97.79	15.65	15,610.06
9/2/2009 22:00	27'					25	42	12,000		36.00	5.76	15,646.06
9/2/2009 23:00	27'					25	40	12,050		6.71	1.07	15,652.78
9/3/2009 0:00	27'					25	42	8,950		5.86	0.94	15,658.64
9/3/2009 1:00	27'					25	46	9,028		5.38	0.86	15,664.02
9/3/2009 2:00	27'					25	44	10,840		6.09	0.97	15,670.11
9/3/2009 3:00	27'					25	48	11,900		7.12	1.14	15,677.23
9/3/2009 4:00	27'					25	40	13,000		7.46	1.19	15,684.69
9/3/2009 5:00	27'					25	44	13,950		7.71	1.23	15,692.39

**Table 2
HYDROCARBON MASS REMOVAL SPREADSHEET (Using Field Data)
Lim Property, Oakland, CA**

TIME	Extraction Well # (Slinger Depth)	Extraction Well # (Slinger Depth)	Extraction Well # (Slinger Depth)	Extraction Well # (Slinger Depth)	Extraction Well # (Slinger Depth)	SYSTEM PARAMETERS				Hydrocarbon Recovery (using Horiba Data)		
						System Vacuum (In. of Hg)	Total System Inlet Flow (scfm) **	Influent Concentrations Post-dilution * (ppmv)	Effluent Concentrations (ppmv) *	(lbs)	(gal)	(Cumul. lbs)
9/3/2009 6:30	closed	open EW-1	open EW-2	open IW-5	open MW-3	23	216	7,060		27.89	4.46	15,720.28
9/3/2009 8:00		28'	28'	28'	28'	23	215	7,340		31.69	5.07	15,751.97
9/3/2009 12:00		28'	28'	28'	28'	23	217	8,400		92.58	14.82	15,844.55
9/3/2009 16:00		28'	28'	28'	28'	23	216	7,400		93.15	14.91	15,937.69
9/3/2009 20:00	open EW-6	closed	closed	closed	closed	23	215	7,780		89.08	14.26	16,026.77
9/3/2009 22:00	27'					25	48	8,900		29.86	4.78	16,056.64
9/3/2009 23:00	27'					25	43	9,110		5.58	0.89	16,062.21
9/4/2009 0:00	27'					25	42	9,405		5.36	0.86	16,067.57
9/4/2009 1:00	27'					25	46	11,420		6.24	1.00	16,073.81
9/4/2009 2:00	27'					25	43	11,989		7.09	1.14	16,080.90
9/4/2009 3:00	27'					25	48	12,825		7.69	1.23	16,088.59
9/4/2009 4:00	27'					25	45	14,950		8.79	1.41	16,097.38
9/4/2009 5:00	27'					25	42	15,400		8.99	1.44	16,106.37
Total Hydrocarbons Recovered										16,106.37	2,578.05	
Total Groundwater Extracted												234,070

Comments: Manual dilution was not opened during the event.

In of Hg = inches of mercury scfm = standard cubic feet per minute gal = gallons lbs = pounds

* Concentrations based on Horiba MEXA 324-JU field organic vapor analyzer, calibrated as hexane

** Inlet flow measured through orifice tube and converted from acfm to reported scfm

Figure 1
Total Inlet HC Concentrations vs Time (32 Days)
Lim Property, Oakland, CA - 8/3-9/4/09

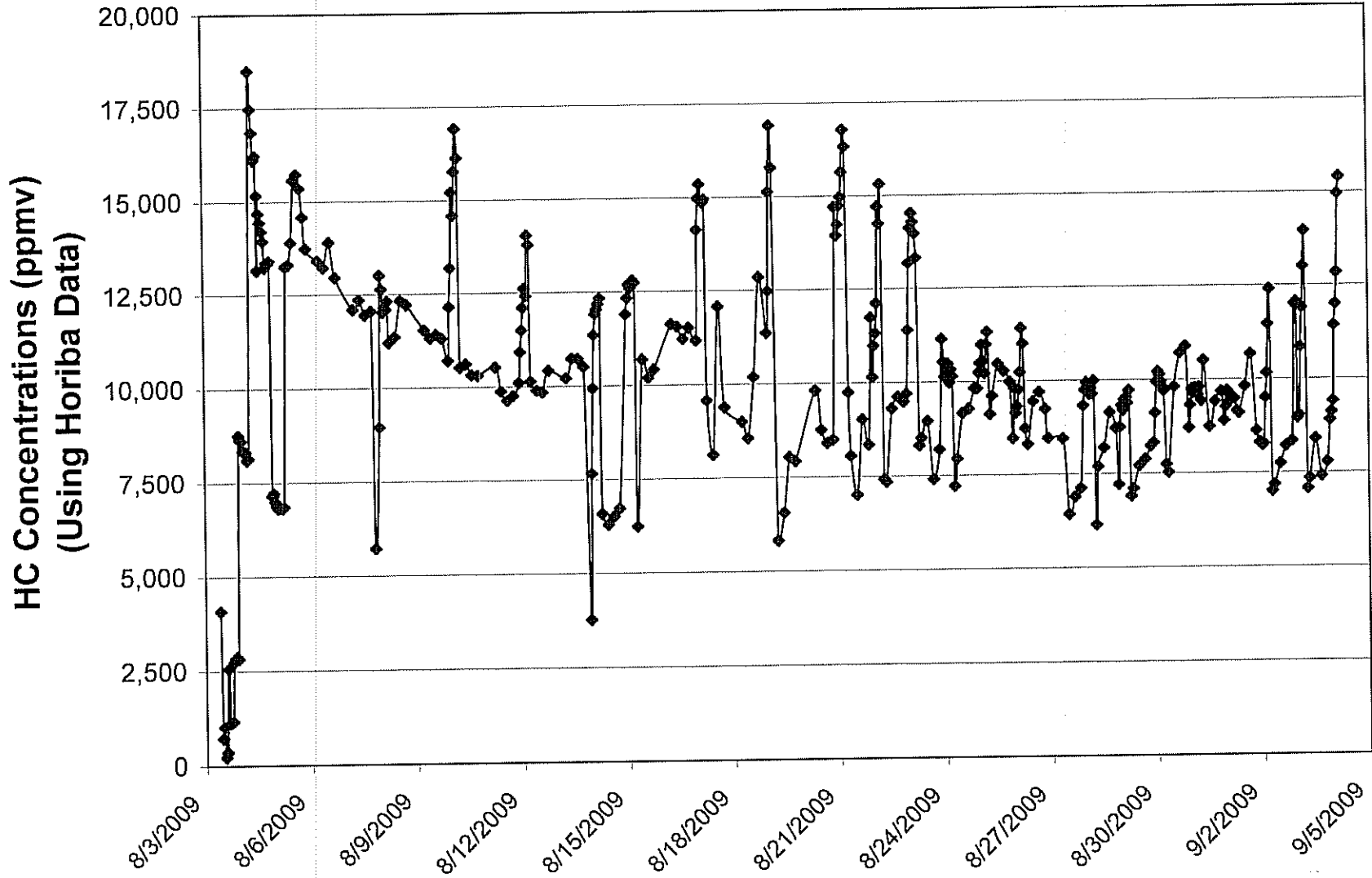
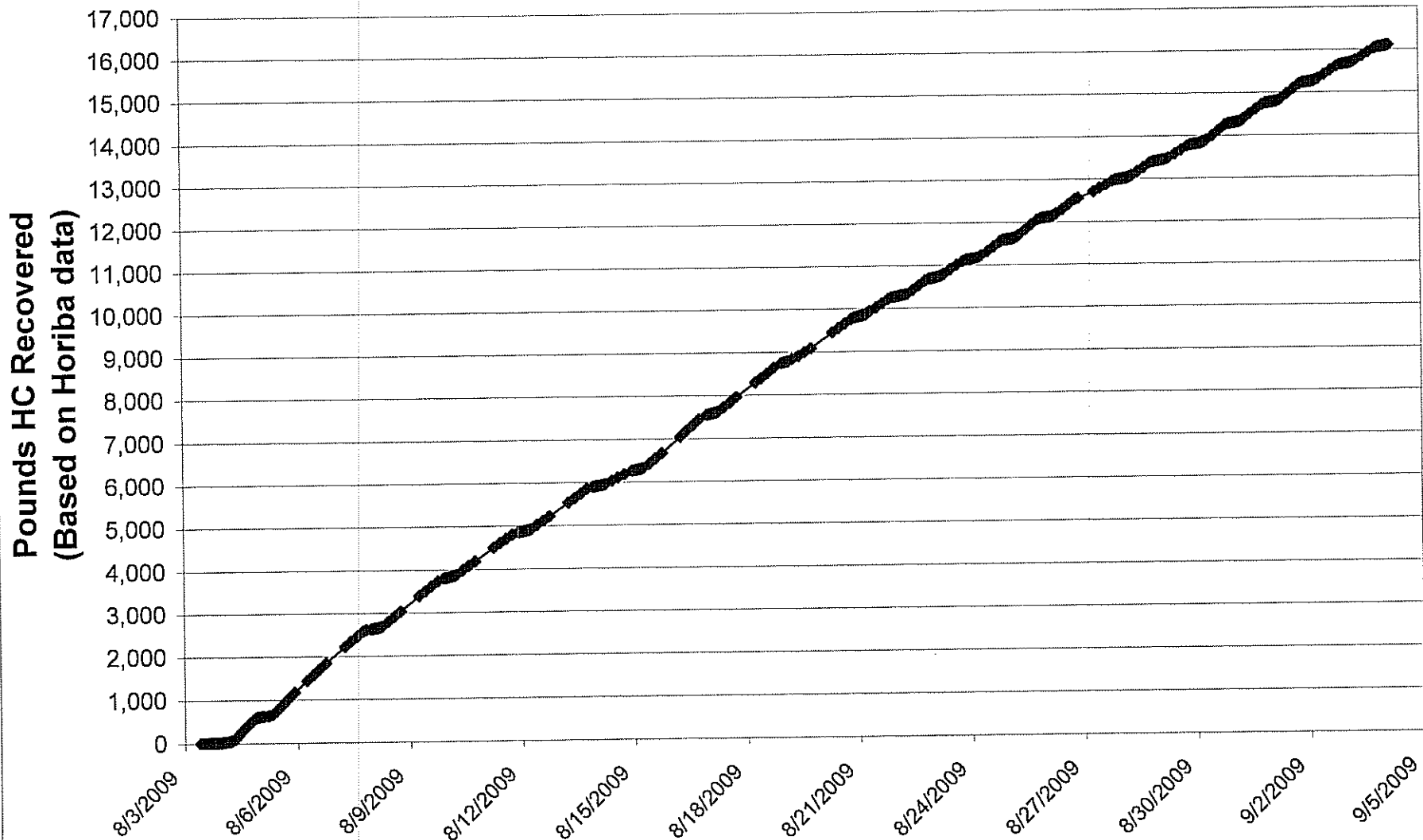


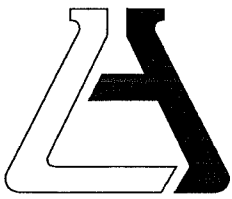
Figure 2
Cumulative HC Recovered Over 32 Days
Lim Property, Oakland, CA - 8/3-9/4/09



CalClean Inc.

ATTACHMENT 1

LABORATORY REPORTS



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Calclean (9977)
ATTN: Noel Sheno
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 237623

REPORTED 07/22/2009

RECEIVED 07/16/2009

PROJECT Lim Property

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.

1008751

1008752

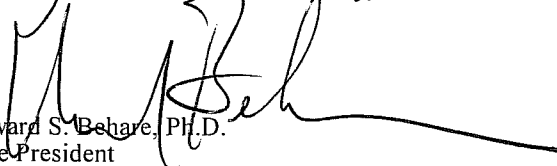
Client Sample Identification

EFFLUENT

Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,


Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 1008751

Client: Calclean

Matrix: WATER

Client Sample ID: EFFLUENT

Date Sampled: 07/14/2009

Time Sampled: 10:50

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8015 TEPH Diesel

TEPH Diesel	0.12	1	0.1	mg/L	07/18/09 AF
Surrogates				Units	Control Limits
Triacontane (Sur)	120			%	60 - 140

8021B BTEX + MTBE

Benzene	ND	1	0.5	ug/L	07/17/09 LT
Ethyl benzene	ND	1	0.5	ug/L	07/17/09 LT
Methyl t - butyl ether	30	1	5	ug/L	07/17/09 LT
Toluene	ND	1	0.5	ug/L	07/17/09 LT
Xylene (total)	ND	1	1.0	ug/L	07/17/09 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	82			%	60 - 140

8015B - Gasoline

Gasoline	ND	1	50	ug/L	07/17/09 LT
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	82			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Order #: 1008752

Client: Calclean

Matrix: WATER

Client Sample ID: Laboratory Method Blank

Date Sampled:

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8015 TEPH Diesel

TEPH Diesel	ND	1	0.1	mg/L	07/18/09 AF
-------------	----	---	-----	------	-------------

Surrogates

				Units	Control Limits
Triacontane (Sur)	95			%	60 - 140

8021B BTEX + MTBE

Benzene	ND	1	0.5	ug/L	07/17/09 LT
Ethyl benzene	ND	1	0.5	ug/L	07/17/09 LT
Methyl t - butyl ether	ND	1	5	ug/L	07/17/09 LT
Toluene	ND	1	0.5	ug/L	07/17/09 LT
Xylene (total)	ND	1	1.0	ug/L	07/17/09 LT

Surrogates

				Units	Control Limits
p-Bromofluorobenzene (Sur)	69			%	60 - 140

8015B - Gasoline

Gasoline	ND	1	50	ug/L	07/17/09 LT
----------	----	---	----	------	-------------

Surrogates

				Units	Control Limits
p-Bromofluorobenzene (Sur)	69			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Chain of Custody Record

CalClean Inc.
3002 Dow, #142
Tustin, CA 92780

ASSOCIATED LABORATORIES

806 North Batavia ■ Orange, CA 92868
Phone: (714) 771-6900 ■ Fax: (714) 538-1209



237623

Company		Tustin, CA 92780		Phone (714) 734-9137		A.L. Job No.		Page 1 of 1		
Project Manager		NOEL SHENOI		Fax (714) 734-9138		Analysis Requested		Test Instructions & Comments		
Project Name		LIM PROPERTY		Project #		TPH-G (8015)				
Site Name and Address		OAKLAND, CA				BTEX/MTBE (8021)				
						BTEX/MTBE (8021)				
						TPH-D (8015)				
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-G (8015)	BTEX/MTBE (8021)	BTEX/MTBE (8021)	TPH-D (8015)
1		7/14/09		AIR	TEBLAR	NONE				
2										
3	EFFLUENT	7/14/09	1050	W	3 VOA	HCl	X	X		
4			1050	W	L Amber	NONE			X	
5										
6										
7										
8										
9										
10	NEED REPORT IN 5 DAYS									
11										
12										
13										
14										
15										

Sample Receipt - To Be Filled By Laboratory				Relinquished by 1.		Relinquished by 2.		Relinquished by 3.	
Total Number of Containers		Properly Cooled Y / N / NA		Signature: <i>Noel Sheno</i>		Signature:		Signature:	
Custody Seals Y / N / NA		Samples Intact Y / N / NA		Printed Name:		Printed Name:		Printed Name:	
Received in Good Condition Y / N		Samples Accepted Y / N		Date: 7/16/09 Time:		Date: Time:		Date: Time:	
Turn Around Time				Received By: 1.		Received By: 2.		Received By: 3.	
<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Rush	<input type="checkbox"/> Same Day	<input type="checkbox"/> 48 hrs.	Signature: <i>Juan Martinez</i>		Signature:		Signature:	
		<input type="checkbox"/> 24 hrs.	<input type="checkbox"/> 72 hrs.	Printed Name: Juan Martinez		Printed Name:		Printed Name:	
				Date: 7-16-09 Time: 12:51		Date: Time:		Date: Time:	



ASSOCIATED LABORATORIES

806 North Batavia – Orange, California 92868 – 714-771-6900

FAX 714-538-1209

SAMPLE ACCEPTANCE CHECKLIST

Section 1
 Client: Calclean Project: LIM PROPERTY
 Date Received: 7-16-09 Sampler's Name: Yes NO
 Sample(s) received in cooler: Yes No (Skip Section 2)
 Shipping Information: _____

Section 2
 Was the cooler packed with: Ice Ice Packs Bubble Wrap Styrofoam
Paper None Other _____
 Cooler or box temperature: 5.5°C
 (Acceptance range is 2 to 6 Deg. C.)

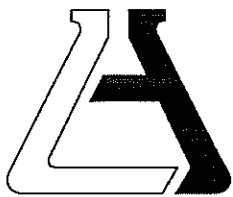
Section 3	YES	NO	N/A
Was a COC received?	<input checked="" type="checkbox"/>		
Is it properly completed? (IDs, sampling date and time, signature, test)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Were custody seals present?		<input checked="" type="checkbox"/>	
If Yes – were they intact?		<input checked="" type="checkbox"/>	
Were all samples sealed in plastic bags?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Did all samples arrive intact? If no, indicate below.	<input checked="" type="checkbox"/>		
Did all bottle labels agree with COC? (ID, dates and times)	<input checked="" type="checkbox"/>		
Were correct containers used for the tests required?	<input checked="" type="checkbox"/>		
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Was there headspace in VOA vials?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Were the containers labeled with correct preservatives?	<input checked="" type="checkbox"/>		
Was total residual chlorine measured (Fish Bioassay samples only)? *			<input checked="" type="checkbox"/>

*: If the answer is no, please inform Fish Bioassay Dept. immediately.

Section 4
 Explanations/Comments

Section 5
 Was Project Manager notified of discrepancies: Y / N N/A

Completed By: [Signature] Date: 7-16-09



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Calclean (9977)
ATTN: Noel Shenoj
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 238858

REPORTED 08/10/2009

RECEIVED 08/06/2009

PROJECT Lim Property

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
1013583	EW-1
1013584	STACK
1013585	EW-2
1013586	EW-3
1013587	EW-4
1013588	EW-5

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 1013583

Client: Calclean

Matrix: AIR

Client Sample ID: EW-1

Date Sampled: 08/03/2009

Time Sampled: 10:20

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	16	10	0.1	Vppm	08/06/09	SW
Ethyl benzene	1.8	5	0.05	Vppm	08/06/09	SW
Methyl t - butyl ether	27	10	1.0	Vppm	08/06/09	SW
Toluene	15	10	0.1	Vppm	08/06/09	SW
Xylene (total)	5.2	5	0.15	Vppm	08/06/09	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	452	5	25.0	Vppm	08/06/09	SW
----------	-----	---	------	------	----------	----

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1013584

Client: Calclean

Matrix: AIR

Client Sample ID: STACK

Date Sampled: 08/03/2009

Time Sampled: 10:30

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	0.01	1	0.01	Vppm	08/06/09 SW
Ethyl benzene	0.01	1	0.01	Vppm	08/06/09 SW
Methyl t - butyl ether	ND	1	0.10	Vppm	08/06/09 SW
Toluene	0.01	1	0.01	Vppm	08/06/09 SW
Xylene (total)	0.04	1	0.03	Vppm	08/06/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	ND	1	5.0	Vppm	08/06/09 SW
----------	----	---	-----	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Order #: 1013585

Client: Calclean

Matrix: AIR

Client Sample ID: EW-2

Date Sampled: 08/03/2009

Time Sampled: 11:20

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	14	5	0.05	Vppm	08/07/09	SW
Ethyl benzene	6.4	5	0.05	Vppm	08/07/09	SW
Methyl t - butyl ether	3.0	5	0.5	Vppm	08/07/09	SW
Toluene	4.6	5	0.05	Vppm	08/07/09	SW
Xylene (total)	5.4	5	0.15	Vppm	08/07/09	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	131	5	25.0	Vppm	08/07/09	SW
----------	-----	---	------	------	----------	----

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1013586

Client: Calclean

Matrix: AIR

Client Sample ID: EW-3

Date Sampled: 08/03/2009

Time Sampled: 12:20

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	43	25	0.25	Vppm	08/07/09	SW
Ethyl benzene	3.8	5	0.05	Vppm	08/07/09	SW
Methyl t - butyl ether	47	25	2.5	Vppm	08/07/09	SW
Toluene	16	25	0.25	Vppm	08/07/09	SW
Xylene (total)	9.1	5	0.15	Vppm	08/07/09	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	586	5	25.0	Vppm	08/07/09	SW
----------	-----	---	------	------	----------	----

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1013587

Client: Calclean

Matrix: AIR

Client Sample ID: EW-4

Date Sampled: 08/03/2009

Time Sampled: 13:20

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	0.95	1	0.01	Vppm	08/07/09 SW
Ethyl benzene	0.71	1	0.01	Vppm	08/07/09 SW
Methyl t - butyl ether	0.31	1	0.10	Vppm	08/07/09 SW
Toluene	1.0	1	0.01	Vppm	08/07/09 SW
Xylene (total)	1.3	1	0.03	Vppm	08/07/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	13	1	5.0	Vppm	08/07/09 SW
----------	----	---	-----	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1013588

Client: Calclean

Matrix: AIR

Client Sample ID: EW-5

Date Sampled: 08/03/2009

Time Sampled: 15:20

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	3.5	1	0.01	Vppm	08/06/09 SW
Ethyl benzene	0.85	1	0.01	Vppm	08/06/09 SW
Methyl t - butyl ether	1.8	1	0.10	Vppm	08/06/09 SW
Toluene	3.7	1	0.01	Vppm	08/06/09 SW
Xylene (total)	2.2	1	0.03	Vppm	08/06/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	70	1	5.0	Vppm	08/06/09 SW
----------	----	---	-----	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 238859-590
Matrix: AIR
Prep. Date : August 7, 2009
Analysis Date: 08/07/09-08/08/09
Lab ID#'s in Batch: 238859, 238858

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	2,762.10	2,670.30	3
Benzene	8021B	40.72	37.89	7
Toluene	8021B	217.29	208.09	4
Ethylbenzene	8021B	64.76	61.11	6
Xylenes	8021B	315.77	297.29	6

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 238719-281
Matrix: AIR
Prep. Date : August 6, 2009
Analysis Date: 08/06/09-08/07/09
Lab ID#'s in Batch: 238719, 238860, 238858

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	801.72	822.30	3
Benzene	8021B	1.43	1.45	1
Toluene	8021B	30.71	32.15	5
Ethylbenzene	8021B	8.56	8.95	4
Xylenes	8021B	119.13	129.39	8

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

CalClean Inc.
3002 Dow, #142
Tustin, CA 92780

ASSOCIATED LABORATORIES

806 North Batavia • Orange, CA 92868
Phone: (714) 771-6900 • Fax: (714) 538-1209

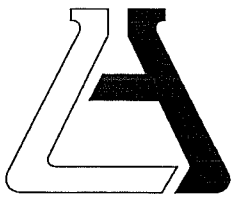


238858

Company							Phone (714) 734-9137		A.L. Job No.							Page 1 of 1	
Project Manager							Fax (714) 734-9138		Analysis Requested							Test Instructions & Comments	
Project Name							Project #		TPH-G (8015) BTEX/MTBE (8021) SULFIDES (8008)								
Site Name and Address																	
NOEL SHENOI LIM PROPERTY OAKLAND, CA																	
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-G (8015)	BTEX/MTBE (8021)	SULFIDES (8008)								
1	EW-1	8/3/09	1020	AIR	TEDLAR	NONE	X	X									
2	STACK		1030														
3	EW-2		1120														
4	EW-3		1220														
5	EW-4		1320														
6	EW-5		1520														
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

EDF
T0600100535
AIR=PPMV

Sample Receipt - To Be Filled By Laboratory				Relinquished by 1.		Relinquished by 2.		Relinquished by 3.	
Total Number of Containers	Property Cooled Y/N/NA	Custody Seals Y/N/NA	Received in Good Condition Y/N	Signature: <i>Noel Sheno</i>	Signature:	Signature:	Signature:	Signature:	Signature:
	Samples Intact Y/N/NA		Samples Accepted Y/N	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
				Date: 8/6/09 Time:	Date: Time:	Date: Time:	Date: Time:	Date: Time:	Date: Time:
Turn Around Time				Received By: 1.		Received By: 2.		Received By: 3.	
<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Rush	<input type="checkbox"/> Same Day	<input type="checkbox"/> 48 hrs.	Signature: <i>M. Ebert</i>	Signature:	Signature:	Signature:	Signature:	Signature:
		<input type="checkbox"/> 24 hrs.	<input type="checkbox"/> 72 hrs.	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
				Date: 8-6-09 Time: 1455	Date: Time:	Date: Time:	Date: Time:	Date: Time:	Date: Time:



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Calclean (9977)
ATTN: Noel Sheno
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 239684

REPORTED 08/25/2009

RECEIVED 08/20/2009

PROJECT Lim Property

SUBMITTER Client

COMMENTS Global ID: T0600100535

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.

1016774

1016775

Client Sample Identification

Total Inlet 08/08/09

Total Inlet 08/18/09

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behar, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 1016774

Client: Calclean

Matrix: AIR

Client Sample ID: Total Inlet 08/08/09

Date Sampled: 08/08/2009

Time Sampled: 10:00

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	197	50	0.5	Vppm	08/21/09 SW
Ethyl benzene	50	50	0.5	Vppm	08/21/09 SW
Methyl t - butyl ether	290	50	5.0	Vppm	08/21/09 SW
Toluene	506	100	1.0	Vppm	08/21/09 SW
Xylene (total)	162	50	1.5	Vppm	08/21/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	7760	50	250.0	Vppm	08/21/09 SW
----------	------	----	-------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1016775

Client: Calclean

Matrix: AIR

Client Sample ID: Total Inlet 08/18/09

Date Sampled: 08/18/2009

Time Sampled: 08:00

Sampled By:

Analyte

Result

DF

DLR

Units

Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Analyte	Result	DF	DLR	Units	Date/Analyst
Benzene	182	100	1.0	Vppm	08/21/09 SW
Ethyl benzene	46	100	1.0	Vppm	08/21/09 SW
Methyl t - butyl ether	229	100	10.0	Vppm	08/21/09 SW
Toluene	423	100	1.0	Vppm	08/21/09 SW
Xylene (total)	156	100	3.0	Vppm	08/21/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Analyte	Result	DF	DLR	Units	Date/Analyst
Gasoline	6610	100	500.0	Vppm	08/21/09 SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 239684-774
Matrix: AIR
Prep. Date : August 21, 2009
Analysis Date: 08/21/09-08/24/09
Lab ID#'s in Batch: 239684, 239721, 239720

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	7,765.01	7,694.80	1
Benzene	8021B	196.86	216.19	9
Toluene	8021B	458.37	491.84	7
Ethylbenzene	8021B	50.24	55.03	9
Xylenes	8021B	161.58	180.08	11

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

CalClean Inc.
3002 Dow, #142
Tustin, CA 92780

ASSOCIATED LABORATORIES

806 North Batavia ■ Orange, CA 92868

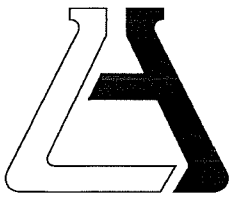
Phone: (714) 771-6900 ■ Fax: (714) 538-1209



Company CalClean Inc. 3002 Dow, #142 Tustin, CA 92780		Phone (714) 734-9137		A.L. Job No. 239684		Page <u>1</u> of <u>1</u>												
Project Manager NOEL SHENOI		Fax (714) 734-9138		Analysis Requested				Test Instructions & Comments										
Project Name LIM PROPERTY		Project #		TPH-G (8015)	BTEX/MTBE (8021)	BTEX/MTBE (8068)												
Site Name and Address OAKLAND, CA																		
Sample ID	Lab ID	Date	Time					Matrix	Container Number/Size	Pres.								
1	TOTAL INLET	8/8/09	1000	AIR	TEDLAR	NONE	X	X										
2	TOTAL INLET	8/18/09	0800	"	"	"	X	X										
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		

EDF
 T0600100535
 AIR=PPMV

Sample Receipt - To Be Filled By Laboratory				Relinquished by 1.		Relinquished by 2.		Relinquished by 3.	
Total Number of Containers	Properly Cooled Y / N / NA	Signature: <i>Noel Sheno</i>	Signature:	Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Custody Seals Y / N / NA	Samples Intact Y / N / NA	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Received in Good Condition Y / N	Samples Accepted Y / N	Date: 8/20/09	Time:	Date:	Time:	Date:	Time:	Date:	Time:
Turn Around Time				Received By: 1.		Received By: 2.		Received By: 3.	
<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Rush	<input type="checkbox"/> Same Day	<input type="checkbox"/> 48 hrs.	Signature: <i>M. Eckert</i>	Signature:	Signature:	Signature:	Signature:	Signature:
	<input type="checkbox"/> 24 hrs.	<input type="checkbox"/> 72 hrs.		Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
				Date: 8-20-09	Time: 1514	Date:	Time:	Date:	Time:



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Calclean (9977)
ATTN: Noel Sheno
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 239697

REPORTED 08/26/2009

RECEIVED 08/20/2009

PROJECT Lim Property

SUBMITTER Client

COMMENTS Global ID: T0600100535

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.

1016805

1016806

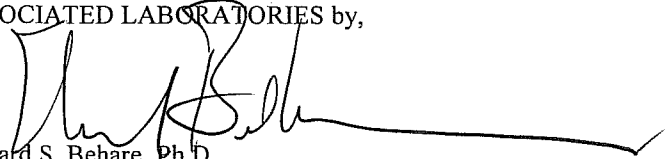
Client Sample Identification

EFFLUENT

Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,


Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

*TESTING & CONSULTING
Chemical
Microbiological
Environmental*

Order #: 1016805

Client: Calclean

Matrix: WATER

Client Sample ID: EFFLUENT

Date Sampled: 08/18/2009

Time Sampled: 08:15

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8015 TEPH Diesel

TEPH Diesel	ND	1	0.1	mg/L	08/22/09 AF
Surrogates				Units	Control Limits
Triacotane (Sur)	130			%	60 - 140

8021B BTEX + MTBE

Benzene	ND	1	0.5	ug/L	08/21/09 SW
Ethyl benzene	ND	1	0.5	ug/L	08/21/09 SW
Methyl t - butyl ether	ND	1	5	ug/L	08/21/09 SW
Toluene	ND	1	0.5	ug/L	08/21/09 SW
Xylene (total)	ND	1	1.0	ug/L	08/21/09 SW
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	96			%	60 - 140

8015B - Gasoline

Gasoline	ND	1	50	ug/L	08/21/09 SW
Surrogates				Units	Control Limits
p-Bromofluorobenzene (Sur)	96			%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Order #: 1016806**Client:** Calclean**Matrix:** WATER**Client Sample ID:** Laboratory Method Blank**Date Sampled:****Time Sampled:****Sampled By:**

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8015 TEPH Diesel

TEPH Diesel	ND	1	0.1	mg/L	08/21/09 AF
-------------	----	---	-----	------	-------------

Surrogates

	Units	Control Limits
Triacontane (Sur)	%	60 - 140

8021B BTEX + MTBE

Benzene	ND	1	0.5	ug/L	08/21/09 SW
---------	----	---	-----	------	-------------

Ethyl benzene	ND	1	0.5	ug/L	08/21/09 SW
---------------	----	---	-----	------	-------------

Methyl t - butyl ether	ND	1	5	ug/L	08/21/09 SW
------------------------	----	---	---	------	-------------

Toluene	ND	1	0.5	ug/L	08/21/09 SW
---------	----	---	-----	------	-------------

Xylene (total)	ND	1	1.0	ug/L	08/21/09 SW
----------------	----	---	-----	------	-------------

Surrogates

	Units	Control Limits
p-Bromofluorobenzene (Sur)	%	60 - 140

8015B - Gasoline

Gasoline	ND	1	50	ug/L	08/21/09 SW
----------	----	---	----	------	-------------

Surrogates

	Units	Control Limits
p-Bromofluorobenzene (Sur)	%	60 - 140

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



**ASSOCIATED LABORATORIES
LCS REPORT FORM**

QC Sample: G1-LCS&LCSD

Matrix: WATER

Prep. Date: August 21, 2009

Analysis Date 8/21/09-8/22/09

Lab ID#'s in Batch: 239636 , 239683 , 239604 , 239697 , 239698 , 239711 , 239680 .

LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT

Reporting Units = µg/L

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD
TPH	8015M-G	ND	500	443	453	89	91	2

ND = Not Detected

LCS Result = Lab Control Sample Result

%REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate

RPD = Relative Percent Difference of LCS Spike and LCS Spike Duplicate

<i>%REC LIMITS = 70 - 130</i>
<i>RPD LIMITS = 30</i>

SURROGATE RECOVERY

Sample No.	BFB
QC Limit	60-140
Method Blank	76
LCS	94
LCSD	97

BFB = p-Bromofluorobenzene

**ASSOCIATED LABORATORIES
LCS REPORT FORM**

QC Sample: LCS/LCSD

Matrix: WATER

Extraction Method : 3510C

Prep. Date: August 21, 2009

Analysis Date August 21, 2009

Lab ID#'s in Batch: LR 239590, 239592, 239658, 239660, 239697, 239698

LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Method Blank	Spike Added	LCS Spike	LCSD Spk. Dup	%Rec LCS	%Rec LCSD	RPD
DIESEL	8015D	ND	1.0	0.9	0.8	86	80	7

ND = Not Detected

LCS Result = Lab Control Sample Result

%REC-LCS & LCSD = Percent Recovery of LCS Spike & LCS Spike Duplicate

RPD = Relative Percent Difference of LCS Spike and LCS Spike Duplicate

<i>%REC LIMITS = 60 - 140</i>

<i>RPD LIMITS = 30</i>

SURROGATE RECOVERY

Sample No.	n-triacontane-d62
QC Limit	60-140
Method Blank	80
LCS	100
LCSD	75

ASSOCIATED LABORATORIES
LCS REPORT FORM

QC Sample: G1-BLCS/BLCSD

Matrix: WATER

Prep. Date: August 21, 2009

Analysis Date: 8/21/09-8/22/09

Lab ID#'s in Batch: 239697,

REPORTING UNITS = $\mu\text{g/L}$

LAB CONTROLLED SPIKE / LAB CONTROLLED DUPLICATE RESULT

Test	Method	Sample Result	Spike Added	Matrix LCS	Matrix LCSD	%Rec LCS	%Rec LCSD	RPD
Benzene	8021	ND	20	19.1	18.9	95	95	1
Toluene	8021	ND	20	17.7	17.6	88	88	0
Ethylbenzene	8021	ND	20	19.5	18.9	97	94	3
Xylenes	8021	ND	60	60.9	60.1	101	100	1

ND = Not Detected

RPD = Relative Percent Difference of Matrix LCS and Matrix LCSD

%REC-LCS & LCSD = Percent Recovery of LCS & LCSD

<i>%REC LIMITS = 70 - 130</i>
<i>RPD LIMITS = 30</i>

SURROGATE RECOVERY

Sample No.	BFB
QC Limit	60-140
Method Blank	76
LCS	123
LCSD	104

BFB=p-Bromofluorobenzene

Chain of Custody Record

CalClean Inc.
3002 Dow, #142
Tustin, CA 92780

ASSOCIATED LABORATORIES

806 North Batavia ■ Orange, CA 92868
Phone: (714) 771-6900 ■ Fax: (714) 538-1209

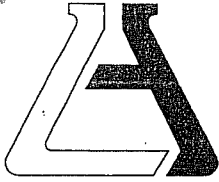


239697
Page 1 of 1

Company		Phone (714) 734-9137				A.L. Job No.			
Project Manager		Fax (714) 734-9138							
Project Name		Project #						Analysis Requested	
Site Name and Address								Test Instructions & Comments	
LIM PROPERTY								TPH-G (8015)	
OAKLAND, CA								BTEX/MTBE (8021)	
								BTEX/MTBE (8008)	
								TPH-D (8015)	
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.			
1		8/09		AIR	TERRAR	NONE			
2									
3									
4	EFFLUENT	8/18/09	0815	W	2 VOA	HCl	X	X	
5				W	500 ml	None			X
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
Sample Receipt - To Be Filled By Laboratory						1. Relinquished by Sampler:		2. Relinquished by	
Total Number of Containers		Property Cooled Y / N / NA		Signature: <i>Robb Sheno</i>		Signature:		Signature:	
Custody Seals Y / N / NA		Samples Intact Y / N / NA		Printed Name:		Printed Name:		Printed Name:	
Received in Good Condition Y / N		Samples Accepted Y / N		Date: 8/20/09 Time:		Date: Time:		Date: Time:	
Turn Around Time						1. Received By:		2. Received By:	
<input checked="" type="checkbox"/> Normal		<input type="checkbox"/> Rush		Signature: <i>M. Eubert</i>		Signature:		Signature:	
<input type="checkbox"/> Same Day		<input type="checkbox"/> 48 hrs.		Printed Name:		Printed Name:		Printed Name:	
<input type="checkbox"/> 24 hrs.		<input type="checkbox"/> 72 hrs.		Date: 8-20-09 Time: 1515		Date: Time:		Date: Time:	

EDF

T0600100535
AIR=PPMV



ASSOCIATED LABORATORIES

806 North Batavia – Orange, California 92868 – 714-771-6900

FAX 714-538-1209

SAMPLE ACCEPTANCE CHECKLIST

Section 1
 Client: Calclean Project: _____
 Date Received: 8-20-09 Sampler's Name: Yes No
 Sample(s) received in cooler: Yes No (Skip Section 2)
 Shipping Information: _____

Section 2
 Was the cooler packed with: ___ Ice Ice Packs ___ Bubble Wrap ___ Styrofoam
 ___ Paper ___ None ___ Other _____
 Cooler or box temperature: 4
 (Acceptance range is 2 to 6 Deg. C.)

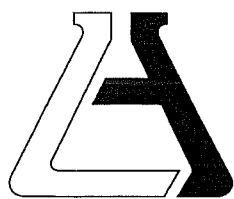
Section 3	YES	NO	N/A
Was a COC received?	<input checked="" type="checkbox"/>		
Is it properly completed? (IDs, sampling date and time, signature, test)	<input checked="" type="checkbox"/>		
Were custody seals present?			<input checked="" type="checkbox"/>
If Yes – were they intact?			<input checked="" type="checkbox"/>
Were all samples sealed in plastic bags?	<input checked="" type="checkbox"/>		
Did all samples arrive intact? If no, indicate below.	<input checked="" type="checkbox"/>		
Did all bottle labels agree with COC? (ID, dates and times)	<input checked="" type="checkbox"/>		
Were correct containers used for the tests required?	<input checked="" type="checkbox"/>		
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>		
Was there headspace in VOA vials?		<input checked="" type="checkbox"/>	
Were the containers labeled with correct preservatives?	<input checked="" type="checkbox"/>		
Was total residual chlorine measured (Fish Bioassay samples only)? *			<input checked="" type="checkbox"/>

*: If the answer is no, please inform Fish Bioassay Dept. immediately.

Section 4
 Explanations/Comments

Section 5
 Was Project Manager notified of discrepancies: Y / N N/A

Completed By: M. E. [Signature] Date: 8-20-09



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Calclean (9977)
ATTN: Noel Sheno
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 239913

REPORTED 09/01/2009

RECEIVED 08/25/2009

PROJECT Lim Property

SUBMITTER Client

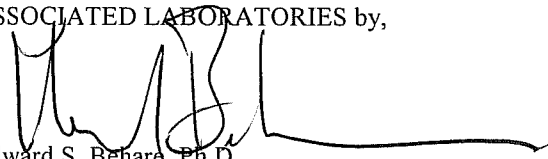
COMMENTS Global ID: T0600100535

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
1017599	EW-6
1017600	TOTAL INLET
1017601	MW-3
1017602	IW-5
1017603	EW-1
1017604	EW-3
1017605	EW-5
1017606	EW-4
1017607	EW-2

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,


Edward S. Behard, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 1017599

Client: Calclean

Matrix: AIR

Client Sample ID: EW-6

Date Sampled: 08/18/2009

Time Sampled: 23:15

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	174	50	0.5	Vppm	08/26/09 SW
Ethyl benzene	22	50	0.5	Vppm	08/26/09 SW
Methyl t - butyl ether	412	125	12.5	Vppm	08/26/09 SW
Toluene	168	50	0.5	Vppm	08/26/09 SW
Xylene (total)	68	50	1.5	Vppm	08/26/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	6440	50	250.0	Vppm	08/26/09 SW
----------	------	----	-------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Order #: 1017600

Client: Calclean

Matrix: AIR

Client Sample ID: TOTAL INLET

Date Sampled: 08/23/2009

Time Sampled: 07:20

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8021B BTEX/MTBE in Air - (Vppm & ug/L)						
Benzene	242	100	1.0	Vppm	08/26/09 SW	
Ethyl benzene	53	100	1.0	Vppm	08/26/09 SW	
Methyl t - butyl ether	374	100	10.0	Vppm	08/26/09 SW	
Toluene	404	100	1.0	Vppm	08/26/09 SW	
Xylene (total)	170	100	3.0	Vppm	08/26/09 SW	

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	6990	100	500.0	Vppm	08/26/09 SW
----------	------	-----	-------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Order #: 1017601

Client: Calclean

Matrix: AIR

Client Sample ID: MW-3

Date Sampled: 08/23/2009

Time Sampled: 07:30

Sampled By:

Analyte

Result

DF

DLR

Units

Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	197	100	1.0	Vppm	08/26/09	SW
Ethyl benzene	44	100	1.0	Vppm	08/26/09	SW
Methyl t - butyl ether	358	100	10.0	Vppm	08/26/09	SW
Toluene	336	100	1.0	Vppm	08/26/09	SW
Xylene (total)	143	100	3.0	Vppm	08/26/09	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	6580	100	500.0	Vppm	08/26/09	SW
----------	------	-----	-------	------	----------	----

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1017602

Client: Calclean

Matrix: AIR

Client Sample ID: IW-5

Date Sampled: 08/23/2009

Time Sampled: 07:40

Sampled By:

Analyte

Result

DF

DLR

Units

Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	183	125	1.25	Vppm	08/26/09	SW
Ethyl benzene	64	125	1.25	Vppm	08/26/09	SW
Methyl t - butyl ether	258	125	12.5	Vppm	08/26/09	SW
Toluene	388	125	1.25	Vppm	08/26/09	SW
Xylene (total)	216	125	3.75	Vppm	08/26/09	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	5830	125	625.0	Vppm	08/26/09	SW
----------	------	-----	-------	------	----------	----

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1017603

Client: Calclean

Matrix: AIR

Client Sample ID: EW-1

Date Sampled: 08/23/2009

Time Sampled: 07:50

Sampled By:

Analyte

Result

DF

DLR

Units

Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Analyte	Result	DF	DLR	Units	Date/Analyst
Benzene	288	1	0.01	Vppm	08/26/09 SW
Ethyl benzene	78	1	0.01	Vppm	08/26/09 SW
Methyl t - butyl ether	360	1	0.10	Vppm	08/26/09 SW
Toluene	527	1	0.01	Vppm	08/26/09 SW
Xylene (total)	256	1	0.03	Vppm	08/26/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Analyte	Result	DF	DLR	Units	Date/Analyst
Gasoline	7860	1	5.0	Vppm	08/26/09 SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1017604

Client: Calclean

Matrix: AIR

Client Sample ID: EW-3

Date Sampled: 08/23/2009

Time Sampled: 08:00

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	142	50	0.5	Vppm	08/27/09	SW
Ethyl benzene	34	50	0.5	Vppm	08/27/09	SW
Methyl t - butyl ether	203	100	10.0	Vppm	08/27/09	SW
Toluene	177	100	1.0	Vppm	08/27/09	SW
Xylene (total)	120	50	1.5	Vppm	08/27/09	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	3340	50	250.0	Vppm	08/27/09	SW
----------	------	----	-------	------	----------	----

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1017605

Client: Calclean

Matrix: AIR

Client Sample ID: EW-5

Date Sampled: 08/23/2009

Time Sampled: 08:10

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	71	50	0.5	Vppm	08/27/09 SW
Ethyl benzene	24	13	0.125	Vppm	08/27/09 SW
Methyl t - butyl ether	263	50	5.0	Vppm	08/27/09 SW
Toluene	105	50	0.5	Vppm	08/27/09 SW
Xylene (total)	66	13	0.375	Vppm	08/27/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	2780	13	62.5	Vppm	08/27/09 SW
----------	------	----	------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1017606

Client: Calclean

Matrix: AIR

Client Sample ID: EW-4

Date Sampled: 08/23/2009

Time Sampled: 08:20

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	28	25	0.25	Vppm	08/27/09 SW
Ethyl benzene	17	25	0.25	Vppm	08/27/09 SW
Methyl t - butyl ether	26	25	2.5	Vppm	08/27/09 SW
Toluene	66	25	0.25	Vppm	08/27/09 SW
Xylene (total)	58	25	0.75	Vppm	08/27/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	1010	25	125.0	Vppm	08/27/09 SW
----------	------	----	-------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1017607

Client: Calclean

Matrix: AIR

Client Sample ID: EW-2

Date Sampled: 08/23/2009

Time Sampled: 08:30

Sampled By:

Analyte

Result

DF

DLR

Units

Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	29	10	0.1	Vppm	08/27/09	SW
Ethyl benzene	11	10	0.1	Vppm	08/27/09	SW
Methyl t - butyl ether	8.8	10	1.0	Vppm	08/27/09	SW
Toluene	25	10	0.1	Vppm	08/27/09	SW
Xylene (total)	29	10	0.3	Vppm	08/27/09	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	401	10	50.0	Vppm	08/27/09	SW
----------	-----	----	------	------	----------	----

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 239934-671
Matrix: AIR
Prep. Date : August 26, 2009
Analysis Date: 08/26/09-08/27/09
Lab ID#'s in Batch: 239933, 239934, 239913, 239912

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	125.12	127.33	2
Benzene	8021B	0.52	0.52	0
Toluene	8021B	2.11	1.97	7
Ethylbenzene	8021B	2.00	1.98	1
Xylenes	8021B	21.16	22.40	6

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 239913-607
Matrix: AIR
Prep. Date : August 27, 2009
Analysis Date: 08/27/09-08/28/09
Lab ID#'s in Batch: 239913, 240044

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	400.94	408.14	2
Benzene	8021B	28.81	30.34	5
Toluene	8021B	24.80	25.92	4
Ethylbenzene	8021B	10.93	11.42	4
Xylenes	8021B	29.20	30.97	6

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

CalClean Inc.
3002 Dow, #142
Tustin, CA 92780

ASSOCIATED LABORATORIES

806 North Batavia ■ Orange, CA 92868
Phone: (714) 771-6900 ■ Fax: (714) 538-1209



239913
Page 1 of 1

Company NOEL SHENOI		Phone (714) 734-9137		A.L. Job No.																
Project Manager NOEL SHENOI		Fax (714) 734-9138		Analysis Requested																
Project Name LIM PROPERTY		Project #		TPH-G (8015)																
Site Name and Address OAKLAND, CA				BTEX/MTBE (8021)																
				SIX/XXS (8260B)																
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	TPH-G (8015)	BTEX/MTBE (8021)	SIX/XXS (8260B)	Test Instructions & Comments										
1	EW-6	8/18/09	2315	AIR	TEDLAR	NONE	X	X												
2	TOTAL INLET	8/23/09	0720																	
3	MW-3		0730																	
4	IW-5		0740																	
5	EW-1		0750																	
6	EW-3		0800																	
7	EW-5		0810																	
8	EW-4		0820																	
9	EW-2		0830																	
10																				
11																				
12																				
13																				
14																				
15																				

EDF
T0600100535
AIR=PPMV

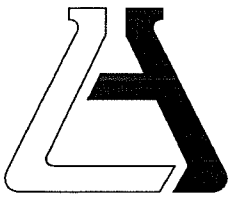
Sample Receipt - To Be Filled By Laboratory

Total Number of Containers	Properly Cooled Y / N / NA
Custody Seals Y / N / NA	Samples Intact Y / N / NA
Received in Good Condition Y / N	Samples Accepted Y / N

Relinquished by Sampler: Signature: <i>Noel Sheno</i> Printed Name: Date: 8/25/09 Time: 6:01	1.	Relinquished by: Signature: Printed Name: Date: Time:	2.	Relinquished by: Signature: Printed Name: Date: Time:	3.
Received By: Signature: <i>[Signature]</i> Printed Name: Date: 2/25 Time: 6:01		Received By: Signature: Printed Name: Date: Time:	2.	Received By: Signature: Printed Name: Date: Time:	3.

Turn Around Time

- Normal
- Rush
- Same Day
- 48 hrs.
- 24 hrs.
- 72 hrs.



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Calclean (9977)
ATTN: Noel Sheno
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 240284

REPORTED 09/08/2009

RECEIVED 09/01/2009

PROJECT Lim Property

SUBMITTER Client

COMMENTS Global ID: T0600100535

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.

1019037

1019038

Client Sample Identification

EW-6

TOTAL INLET

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 1019037

Client: Calclean

Matrix: AIR

Client Sample ID: EW-6

Date Sampled: 08/28/2009

Time Sampled: 04:55

Sampled By:

Analyte

Result

DF

DLR

Units

Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Analyte	Result	DF	DLR	Units	Date/Analyst
Benzene	175	100	1.0	Vppm	09/01/09 SW
Ethyl benzene	43	100	1.0	Vppm	09/01/09 SW
Methyl t - butyl ether	193	100	10.0	Vppm	09/01/09 SW
Toluene	399	100	1.0	Vppm	09/01/09 SW
Xylene (total)	146	100	3.0	Vppm	09/01/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Analyte	Result	DF	DLR	Units	Date/Analyst
Gasoline	6130	100	500.0	Vppm	09/01/09 SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor



Order #: 1019038

Client: Calclean

Matrix: AIR

Client Sample ID: TOTAL INLET

Date Sampled: 08/28/2009

Time Sampled: 07:30

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	154	100	1.0	Vppm	09/01/09 SW
Ethyl benzene	46	100	1.0	Vppm	09/01/09 SW
Methyl t - butyl ether	156	100	10.0	Vppm	09/01/09 SW
Toluene	357	100	1.0	Vppm	09/01/09 SW
Xylene (total)	158	100	3.0	Vppm	09/01/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	5290	-100-	500.0-	Vppm	09/01/09 SW
----------	------	-------	--------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 240284-037
Matrix: AIR
Prep. Date : September 1, 2009
Analysis Date: 09/01/09-09/02/09
Lab ID#'s in Batch: 240281, 240283, 240284

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	6,132.44	6,484.18	6
Benzene	8021B	174.81	177.71	2
Toluene	8021B	399.44	403.64	1
Ethylbenzene	8021B	42.64	42.97	1
Xylenes	8021B	145.55	146.61	1

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

CalClean Inc.
3002 Dow, #142
Tustin, CA 92780

ASSOCIATED LABORATORIES

806 North Batavia ■ Orange, CA 92868
Phone: (714) 771-6900 ■ Fax: (714) 538-1209



220284

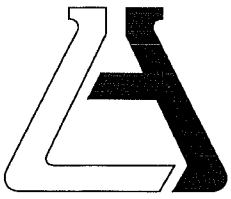
Company		Phone (714) 734-9137		A.L. Job No.		Page 1 of 1																	
Project Manager		Fax (714) 734-9138		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="4">Analysis Requested</th> <th colspan="4">Test Instructions & Comments</th> </tr> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH-G (8015)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX/MTBE (8021)</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX/OXYS (8260B)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				Analysis Requested				Test Instructions & Comments				TPH-G (8015)	BTEX/MTBE (8021)	BTEX/OXYS (8260B)					
Analysis Requested								Test Instructions & Comments															
TPH-G (8015)	BTEX/MTBE (8021)	BTEX/OXYS (8260B)																					
Project Name		Project #																					
Site Name and Address																							
NOEL SHENOI																							
LIM PROPERTY																							
OAKLAND, CA																							
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.																	
1	EW-6	8/28/09	0455	AIR	TEDLAR	NONE	X X																
2	TOTAL INLET	u	0730	u	u	u	X X																
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							

EDF

T0600100535

AIR=PPMV

Sample Receipt - To Be Filled By Laboratory				Relinquished by 1.		Relinquished by 2.		Relinquished by 3.	
Total Number of Containers	Properly Cooled Y / N / NA	Signature: <i>Noel Sheno</i>	Signature:	Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Custody Seals Y / N / NA	Samples Intact Y / N / NA	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Received in Good Condition Y / N	Samples Accepted Y / N	Date: 8/28/09 Time:	Date:	Date:	Date:	Date:	Date:	Date:	Date:
Turn Around Time				Received By: 2.		Received By: 3.			
<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Rush	<input type="checkbox"/> Same Day	<input type="checkbox"/> 48 hrs.	Signature: <i>ADA James</i>	Signature:	Signature:	Signature:	Signature:	Signature:
		<input type="checkbox"/> 24 hrs.	<input type="checkbox"/> 72 hrs.	Printed Name: <i>ADA James</i>	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
				Date: 8/28 Time: 12:10	Date:	Date:	Date:	Date:	Date:



ASSOCIATED LABORATORIES

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Calclean (9977)
ATTN: Noel Sheno
3002 Dow Ave.
#142
Tustin, CA 92780

LAB REQUEST 240595

REPORTED 09/15/2009

RECEIVED 09/08/2009

PROJECT LIM PROPERTY, OAKLAND, CA

SUBMITTER Client


COMMENTS Global ID: T0600100535

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
1020303	TOTAL INLET 9/1/09
1020304	EW-2
1020305	TOTAL INLET 9/3/09
1020306	IW-5
1020307	MW-3
1020308	EW-4
1020309	EW-3
1020310	EW-5
1020311	EW-1
1020312	EW-6

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,


Edward S. Behar, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 1020303

Client: Calclean

Matrix: AIR

Client Sample ID: TOTAL INLET 9/1/09

Date Sampled: 09/01/2009

Time Sampled: 12:00

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	175	100	1.0	Vppm	09/08/09 SW
Ethyl benzene	61	25	0.25	Vppm	09/08/09 SW
Methyl t - butyl ether	216	100	10.0	Vppm	09/08/09 SW
Toluene	411	100	1.0	Vppm	09/08/09 SW
Xylene (total)	204	25	0.75	Vppm	09/08/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	7080	25	125.0	Vppm	09/08/09 SW
----------	------	----	-------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1020304

Client: Calclean

Matrix: AIR

Client Sample ID: EW-2

Date Sampled: 09/03/2009

Time Sampled: 07:55

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	24	10	0.1	Vppm	09/08/09 SW
Ethyl benzene	12	10	0.1	Vppm	09/08/09 SW
Methyl t - butyl ether	3.7	10	1.0	Vppm	09/08/09 SW
Toluene	47	25	0.25	Vppm	09/08/09 SW
Xylene (total)	38	10	0.3	Vppm	09/08/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	463	10	50.0	Vppm	09/08/09 SW
----------	-----	----	------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1020305

Client: Calclean

Matrix: AIR

Client Sample ID: TOTAL INLET 9/3/09

Date Sampled: 09/03/2009

Time Sampled: 20:00

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	136	100	1.0	Vppm	09/08/09 SW
Ethyl benzene	38	100	1.0	Vppm	09/08/09 SW
Methyl t - butyl ether	136	100	10.0	Vppm	09/08/09 SW
Toluene	307	100	1.0	Vppm	09/08/09 SW
Xylene (total)	140	100	3.0	Vppm	09/08/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	4540	100	500.0	Vppm	09/08/09 SW
----------	------	-----	-------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1020306

Client: Calclean

Matrix: AIR

Client Sample ID: IW-5

Date Sampled: 09/03/2009

Time Sampled: 20:10

Sampled By:

Analyte

Result

DF

DLR

Units

Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	177	100	1.0	Vppm	09/09/09	SW
Ethyl benzene	63	100	1.0	Vppm	09/09/09	SW
Methyl t - butyl ether	187	100	10.0	Vppm	09/09/09	SW
Toluene	446	100	1.0	Vppm	09/09/09	SW
Xylene (total)	233	100	3.0	Vppm	09/09/09	SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	5910	100	500.0	Vppm	09/09/09	SW
----------	------	-----	-------	------	----------	----

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1020307

Client: Calclean

Matrix: AIR

Client Sample ID: MW-3

Date Sampled: 09/03/2009

Time Sampled: 20:20

Sampled By:

Analyte

Result

DF

DLR

Units

Date/Analyst

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Analyte	Result	DF	DLR	Units	Date/Analyst
Benzene	157	100	1.0	Vppm	09/09/09 SW
Ethyl benzene	41	100	1.0	Vppm	09/09/09 SW
Methyl t - butyl ether	199	100	10.0	Vppm	09/09/09 SW
Toluene	374	100	1.0	Vppm	09/09/09 SW
Xylene (total)	143	100	3.0	Vppm	09/09/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Analyte	Result	DF	DLR	Units	Date/Analyst
Gasoline	6240	100	500.0	Vppm	09/09/09 SW

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1020308

Client: Calclean

Matrix: AIR

Client Sample ID: EW-4

Date Sampled: 09/03/2009

Time Sampled: 20:30

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	15	13	0.125	Vppm	09/09/09 SW
Ethyl benzene	8.0	13	0.125	Vppm	09/09/09 SW
Methyl t - butyl ether	12	13	1.25	Vppm	09/09/09 SW
Toluene	37	13	0.125	Vppm	09/09/09 SW
Xylene (total)	31	13	0.375	Vppm	09/09/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	640	13	62.5	Vppm	09/09/09 SW
----------	-----	----	------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1020309

Client: Calclean

Matrix: AIR

Client Sample ID: EW-3

Date Sampled: 09/03/2009

Time Sampled: 20:40

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	77	50	0.5	Vppm	09/09/09 SW
Ethyl benzene	20	50	0.5	Vppm	09/09/09 SW
Methyl t - butyl ether	100	50	5.0	Vppm	09/09/09 SW
Toluene	159	50	0.5	Vppm	09/09/09 SW
Xylene (total)	65	50	1.5	Vppm	09/09/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	3080	50	250.0	Vppm	09/09/09 SW
----------	------	----	-------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1020310

Client: Calclean

Matrix: AIR

Client Sample ID: EW-5

Date Sampled: 09/03/2009

Time Sampled: 20:50

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	49	50	0.5	Vppm	09/09/09 SW
Ethyl benzene	15	50	0.5	Vppm	09/09/09 SW
Methyl t - butyl ether	68	50	5.0	Vppm	09/09/09 SW
Toluene	69	50	0.5	Vppm	09/09/09 SW
Xylene (total)	42	50	1.5	Vppm	09/09/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	2220	50	250.0	Vppm	09/09/09 SW
----------	------	----	-------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1020311

Client: Calclean

Matrix: AIR

Client Sample ID: EW-1

Date Sampled: 09/03/2009

Time Sampled: 21:00

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	132	100	1.0	Vppm	09/09/09 SW
Ethyl benzene	40	100	1.0	Vppm	09/09/09 SW
Methyl t - butyl ether	131	100	10.0	Vppm	09/09/09 SW
Toluene	305	100	1.0	Vppm	09/09/09 SW
Xylene (total)	132	100	3.0	Vppm	09/09/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	4560	100	500.0	Vppm	-09/09/09 SW
----------	------	-----	-------	------	--------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



Order #: 1020312

Client: Calclean

Matrix: AIR

Client Sample ID: EW-6

Date Sampled: 09/04/2009

Time Sampled: 05:00

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
---------	--------	----	-----	-------	--------------

8021B BTEX/MTBE in Air - (Vppm & ug/L)

Benzene	160	100	1.0	Vppm	09/09/09 SW
Ethyl benzene	29	100	1.0	Vppm	09/09/09 SW
Methyl t - butyl ether	405	100	10.0	Vppm	09/09/09 SW
Toluene	205	100	1.0	Vppm	09/09/09 SW
Xylene (total)	105	100	3.0	Vppm	09/09/09 SW

8015B - Gasoline in Air - (Vppm & ug/L)

Gasoline	8690	100	500.0	Vppm	09/09/09 SW
----------	------	-----	-------	------	-------------

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

Analytical Results Report



ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 240595-303
Matrix: AIR
Prep. Date : September 8, 2009
Analysis Date: 09/08/09-09/09/09
Lab ID#'s in Batch: 240595,

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	6,693.52	7,551.80	12
Benzene	8021B	175.20	210.14	18
Toluene	8021B	411.28	446.25	8
Ethylbenzene	8021B	49.79	58.49	16
Xylenes	8021B	170.90	200.11	16

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 240637-526
Matrix: AIR
Prep. Date : September 9, 2009
Analysis Date: 09/09/09-09/10/09
Lab ID#'s in Batch: 240637, 240595, 240594

REPORTING UNITS = Vppm

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
Gas	8015M	936.93	931.36	1
Benzene	8021B	1.44	1.42	1
Toluene	8021B	6.98	6.86	2
Ethylbenzene	8021B	3.14	3.16	1
Xylenes	8021B	11.83	11.86	0

ND = "U" - Not Detected

RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 20%

Chain of Custody Record

CalClean Inc.
3002 Dow, #142
Tustin, CA 92780

ASSOCIATED LABORATORIES

806 North Batavia ■ Orange, CA 92868
Phone: (714) 771-6900 ■ Fax: (714) 538-1209



Company		3002 Dow, #142 Tustin, CA 92780		Phone (714) 734-9137		A.L. Job No. 240595		Page <u>1</u> of <u>1</u>			
Project Manager		NOEL SHENOI		Fax (714) 734-9138		Analysis Requested			Test Instructions & Comments		
Project Name		LIM PROPERTY		Project #							
Site Name and Address		OAKLAND, CA				TPH-G (8015)		BTEX/MTBE (8021)		BTEX/XXYS (8260B)	
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.					
1 TOTAL INLET		9/1/09	1200	AIR	TEDLAR	NONE	X	X			
2 EW-2		9/3/09	0755								
3 TOTAL INLET			2000								
4 IW-5			2010								
5 MW-3			2020								
6 EW-4			2030								
7 EW-3			2040								
8 EW-5			2050								
9 EW-1			2100								
10 EW-6		9/4/09	0500								
11											
12											
13											
14											
15											

EDF
T0600100535
AIR=PPMV

Sample Receipt - To Be Filled By Laboratory				Relinquished by 1.		Relinquished by 2.		Relinquished by 3.	
Total Number of Containers		10		Signature: <i>Noel Sheno</i>		Signature:		Signature:	
Custody Seals Y/N/NA		Y/N/NA		Printed Name:		Printed Name:		Printed Name:	
Received in Good Condition Y/N		Y/N		Date: 9/8/09 Time: 10:53		Date: Time:		Date: Time:	
Turn Around Time				Received By: 1.		Received By: 2.		Received By: 3.	
<input checked="" type="checkbox"/> Normal		<input type="checkbox"/> Rush		Signature: <i>ASL</i>		Signature:		Signature:	
<input type="checkbox"/> Same Day		<input type="checkbox"/> 48 hrs.		Printed Name: <i>Iron Monday</i>		Printed Name:		Printed Name:	
<input type="checkbox"/> 24 hrs.		<input type="checkbox"/> 72 hrs.		Date: 9-8-09 Time: 10:53		Date: Time:		Date: Time:	

CalClean Inc.

ATTACHMENT 2

**HIGH VACUUM DUAL PHASE EXTRACTION SYSTEM
FIELD DATA SHEETS**

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/3/2009

Page 1A of 13

Client: AQUA SCIENCE ENGINEERS

Operator (s): DAVIS / DTRELL

		EXTRACTION WELLS											OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.		EW-1			EW-2			EW-3			EW-4		EW-5		IW-5		MW-3						
Screen Interval: From-To (ft)		19.02			P. 18.11			18.46			18.30		18.75		P. 16.85		P. 17.30						
Initial Depth To Water DTW (ft)		W. 18.13											W. 17.28		W. 17.57		units	gals					
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O			DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)
8/3																							
1000	24	51	1450	4080	OPEN		28'															88350	
1100	24	47	1430	720	CLOSED			OPEN		28'													
1200	24	52	1401	1015				CLOSED			OPEN		28'										
1300	24	47	1403	220							CLOSED			OPEN	28'								
1400	24	57	1401	350										CLOSED		OPEN	28'						
1500	24	53	1428	2560												CLOSED							
1600	24	56	1403	1120																OPEN	28'		
1700	24	57	1400	1140																CLOSED		OPEN	28'
1800	24	58	1407	1170																			
1900	24	56	1403	2740																			
2000	24	57	1409	2830																			
2100	24	51	1403	2870																			
2200	24	52	1406	2820																			

Comments: TOOK AIR SAMPLE OF EW-1 @ 1020 (4080PPMV) EW-2 @ 1120 (720PPMV) EW-3 @ 1220 (1015PPMV) EW-4 @ 1320 (220PPMV) EW-5 @ 1420 (350PPMV) IW-5 @ 1620 (2560PPMV) MW-3 @ 1720 (720PPMV)

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/4/2009

Page 2A of 13

Client: AQUA SCIENCE ENGINEERS

Operator (s): DAVIS/DRELL

					EXTRACTION WELLS									OBSERVATION WELLS									
Well I.D.					EW-1			EW-2			IW-5			MW-3		EW-3		EW-4		EW-5		Water Meter Readings	Cumul. Water Extracted
Screen Interval: From-To (ft)					19.02			18.11/18.13			16.85/17.28			17.30/17.57		18.46		18.30		18.75			
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O" (ft)	DTW (ft)	Vacuum "H ₂ O" (ft)	DTW (ft)	Vacuum "H ₂ O" (ft)	DTW (ft)	Vacuum "H ₂ O" (ft)	DTW (ft)	units	gals
8/4					ON		28'	ON		28'	ON		28'	ON	28'							88350	
0800	23	180	1637	18500												0.13	20.27	0.05	19.42	0.04	19.88		
0900	23	183	1640	17480												0.15	20.28	0.05	19.42	0.05	19.88		
1000	23	184	1620	16850	6690			9670			12350			14230		0.13	20.28	0.03	19.43	0.02	19.87	92450	
1100	23	181	1580	16110	6230			930			12630			13930		0.17	20.29	0.07	19.44	0.07	19.89		
1200	23	185	1536	16270	6070			8720			11830			13510		0.07	20.80	0.07	20.70	0.02	20.30		
1300	23	182	1505	15160	5720			8060			11510			12320		0.13	20.80	0.04	20.80	0.05	20.27	93580	
1400	23	184	1480	15170	5340			8130			11120			11730		0.13	20.90	0.10	20.82	0.03	20.30		
1500	23	181	1438	14690	3250			8080			10480			10200		0.10	20.77	0.05	20.76	0.05	20.42		
1600	23	180	1437	14440	3310			8010			10110			11130		0.11	20.76	0.03	20.77	0.03	20.35	94570	
1700	23	182	1433	14200	3110			8130			11230			11210		0.13	20.95	0.05	20.85	0.03	20.31		
1800	23	181	1430	13950	3020			8010			10010			10110		0.10	20.93	0.02	19.33	0.02	20.33		
1900	23	185	1415	13230	5850			7720			10117			10480		0.10	20.95	0.05	19.10	0.02	20.33	96110	
2000	23	182	1400	13350	2730			7750			10128			10360		0.10	20.94	0.03	19.22	0.03	20.34		
2100	23	183	1407	13330	2640			7720			10435			10420		0.10	20.95	0.03	19.22	0.02	20.33		
2200	23	180	1438	13407	2560			7740			10437			10140		0.10	20.91	0.05	19.21	0.03	20.30		

Comments: 8-4-09 TOTAL INLET @ 0800 - (18500 PPMV).

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/15/2009

Page 3A of 13

Client: AQUA SCIENCE ENGINEERS

Operator (s): DAVIS/DRELL

		EXTRACTION WELLS											OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted		
Well I.D.		EW-1			EW-2			EW-5			MW-3		EW-3		EW-4		EW-5							
Screen Interval: From-To (ft)		19.02			18.11/18.13			16.85/17.28			7.30/7.57		18.46		18.30		18.75							
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O (PPMV)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	units	gals	
8/5					ON	28'		ON	28'		ON	28'		ON	28'									
0600	23	180	1450	13250	1130			3523			13120			15430		0.07	19.23	0.04	18.26	0.09	19.27			
0800	23	181	1440	13300	1050			3172			12620			15100		0.10	19.20	0.05	18.87	0.08	19.35	98840		
1000	23	184	1439	13900	9350			2200			12250			14640		0.05	19.25	0.02	18.85	0.05	19.37			
1200	23	182	1438	15580	9630			3840			13520			12140		0.13	21.35	0.10	20.07	0.04	20.83			
1400	23	181	1417	15730	9420			3320			13130			13130		0.16	21.58	0.12	20.27	0.06	21.01			
1600	23	182	1442	15360	8420			9620			12350			12230		0.12	21.22	0.15	20.36	0.10	21.14			
1800	23	182	1452	14580	8230			8520			12420			12650		0.15	21.80	0.13	20.45	0.10	21.19	103740		
2000	23	181	1457	13740	8130			8320			10310			12320		0.13	21.85	0.12	20.48	0.11	21.25			
8/6																								
0600	23	184	1460	13410	10860			4340			9830			1267		0.16	21.96	0.14	20.52	0.13	21.33			
1000	23	182	1478	13220	10580			3290			9740			1238		0.13	22.01	0.15	20.63	0.14	21.41	111530		
1400	23	180	1491	13900	9960			2030			10100			13030		0.14	22.00	0.13	20.64	0.15	21.42			
1800	23	183	1482	12960	10300			1730			9820			12350		0.17	22.04	0.10	20.70	0.13	21.46	116940	28590	
8/7																								
0600	23	184	1480	12100	9630			1420			9230			11720		0.15	21.35	0.13	20.50	0.14	21.31			
1000	23	182	1464	12350	8370			1240			9160			11550		0.17	21.70	0.13	20.46	0.11	21.22	123410	35060	
1400	23	181	1463	11950	8290			1130			8960			11030		0.20	21.75	0.12	20.52	0.15	21.24			
1800	23	184	1452	12050	8430			1160			8530			12150		0.20	21.84	0.13	20.71	0.13	21.31	128180	39830	

Comments:

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 4A of 13

Project Location: 250 8th STREET
Client: AQUA SCIENCE ENGINEERS

City: OAKLAND Site #: LIM PROPERTY
Operator (s): DTRELL/DAVIS

Date: 8/8/2009

					EXTRACTION WELLS									OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted
Well I.D.					EW-1			EW-2			IW-5			MW-3		EW-3		EW-4		EW-5			
Screen Interval: From-To (ft)					P. 18.11			P. 16.85			P. 17.30												
Initial Depth To Water DTW (ft)					19.02			W. 18.13			W. 17.28		W. 17.57		16.46		16.30		18.75		units	gals	
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	units	gals
8/8					OPEN	19.02	28'	OPEN	18.13	28'	OPEN	17.28	28'	OPEN	28'								
0600	23	182	1400	11200	8620			1140			8520			11720		0.19	21.83	0.15	20.78	0.14	21.30		
1000	23	185	1400	11350	8410			1170			8410			11430		0.19	21.83	0.18	20.50	0.12	21.33		
1400	23	184	1410	12320	8320			1220			8210			11520		0.22	21.81	0.18	20.52	0.12	21.24		
1800	23	182	1411	12210	7320			1113			7870			10220		0.20	21.80	0.17	20.60	0.11	21.30	136510	48160
8/9																							
0600	23	180	1413	11530	7250			1142			7520			9880		0.18	21.84	0.15	20.63	0.10	21.32		
1000	23	184	1413	11310	6230			1110			7730			10150		0.18	21.84	0.16	20.62	0.10	21.35		
1400	23	181	1410	11410	7340			987			7620			10320		0.20	21.60	0.17	20.60	0.11	21.40		
1800	23	183	1411	11300	7230			993			7330			10130		0.22	21.61	0.17	20.60	0.12	21.47		
8/10																							
0600	23	182	1410	10520	7310			983			7470			11120		0.20	21.64	0.17	20.62	0.11	21.49	143670	55320
1000	23	181	1411	10610	7010			951			7380			10110		0.21	21.64	0.18	20.61	0.11	21.50		
1400	23	182	1411	10320	7150			962			7210			10200		0.20	21.41	0.18	20.64	0.12	21.50		
1800	23	184	1400	10300	7120			933			9690			9670		0.20	21.33	0.20	20.76	0.12	21.43		

Comments:

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 5A of 13

Project Location: 250 8th STREET
Client: AQUA SCIENCE ENGINEERS

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/11/2009

Operator (s): DTRELL/DAVIS

					EXTRACTION WELLS									OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted
Well I.D.					EW-1			EW-2			IW-5			MW-3		EW-3		EW-4		EW-5			
Screen Interval: From-To (ft)					19.02			P. 18.11 W. 18.13			P. 16.85 W. 17.28			P. 17.30 W. 17.57		16.46		16.30		18.75			
Initial Depth To Water DTW (ft)																							
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum ("Hg.)	DTW (ft)	Vacuum ("H ₂ O)	DTW (ft)	Vacuum ("H ₂ O)	DTW (ft)	Vacuum ("H ₂ O)	DTW (ft)	units	gals
8/11					ON		28'	ON		28'	ON		28'	ON	28'								
0600	23	184	1400	10520	7210			972			9520			9730		0.22	21.23	0.20	20.80	0.13	21.30		
1000	23	182	1410	9870	8030			983			8120			8620		0.24	21.19	0.22	20.87	0.13	21.22		
1400	23	181	1410	9620	8250			997			7380			9650		0.20	21.15	0.22	20.93	0.13	21.15		
1800	23	183	1400	9750	8410			972			7640			10660		0.20	21.14	0.21	20.95	0.15	21.10		
8/12																							
0600	23	181	1413	10130	8670			956			7420			10530		0.22	21.13	0.19	21.30	0.13	20.95	168130	79780
1000	23	183	1413	9890	8990			967			7230			10800		0.20	21.10	0.20	21.41	0.12	20.87		
1400	23	182	1400	9840	9020			932			7310			10730		0.20	21.20	0.18	21.40	0.12	20.85		
1800	23	185	1400	10420	8740			810			7110			10700		0.21	21.30	0.20	21.43	0.15	20.85		
8/13																							
0600	23	182	1400	10210	9670			620			7780			10320		0.22	21.83	0.24	21.21	0.15	21.23		
1000	23	181	1410	10730	10700			530			7990			10580		0.23	22.15	0.22	20.95	0.14	21.43	177790	87440
1400	23	183	1410	10720	8170			410			6290			9100		787	28'	0.23	20.93	3670	28'		
1800	23	211	1400	10510	9120			315			5250			11340		963		0.25	20.90	6030		180090	91740

Comments: 8/13 - OPENED EW-3 + EW-5 @ 1130. TOOK VAPOR SAMPLES AS FOLLOWS - EW-3 @ 1130, EW-5 @ 1140

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 6A of 13

Project Location: 250 8th STREET
Client: AQUA SCIENCE ENGINEERS

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/14/2009

Operator (s): DTRELL

					EXTRACTION WELLS									OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted
Well I.D.					EW-1			EW-2			IW-6			MW-3		EW-3		EW-4		EW-5			
Screen Interval: From-To (ft)					19.02			P. 18.11			P. 16.85			P. 17.30		16.46		16.30		18.75			
Initial Depth To Water DTW (ft)								W. 18.13			W. 17.28			W. 17.57									
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Slinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Slinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Slinger Depth (feet)	Velocity (ft/min)	DTW (ft)	Velocity (ft/min)	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	units	gals
8/14					OPEN		28'	OPEN		28'	OPEN		28'	OPEN	28'	OPEN	28'					88350	
0600	23	212	1420	6580	7030			329			1090			3320		728		0.22	20.50		1430		
1000	23	214	1413	6290	8440			730			2480			3560		836		0.23	20.40		1520		
1400	23	215	1411	6500	6690			692			6060			9960		3750		0.22	20.60		4130		
1800	23	216	1413	6270	6300			520			6090			9830		3560		0.22	20.65		5130		
8/15																							
0600	23	217	1400	10730	8430			537			6630			7530		6130		0.25	20.75		5020		
1000	23	212	1400	10690	8910			580			6610			9350		5190		0.23	20.80		5040	190760	102410
1400	23	211	1400	10200	8520			530			6320			9100		4230		0.22	20.95		5130		
1800	23	213	1400	10420	8260			410			6130			9220		4150		0.19	21.05		4850		
8/16																							
0600	23	210	1400	11620	8370			510			6070			9510		6020		0.20	21.11		4900		
1000	23	215	1400	11550	8320			652			5840			9660		6280		0.22	21.15		4650	199740	111390
1400	23	220	1400	11270	8030			584			5730			9530		6010		0.19	21.09		4370		
1800	23	218	1400	11520	8380			625			5890			9480		6260		0.20	21.05		4210		

Comments:

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 1A of 13

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/17/2009

Client: AQUA SCIENCE ENGINEERS

Operator (s): DRELL, BERNARDO, NEU, JASON

					EXTRACTION WELLS									OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted			
Well I.D.					EW-1			EW-2			EW-5			MW-3		EW-3		EW-4		EW-5						
Screen Interval: From-To (ft)					19.02			P. 18.11 W. 18.13			P. 16.85 W. 17.26			P. 17.30 W. 17.57		16.46		16.30		18.75						
Initial Depth To Water DTW (ft)					Off/On	DTW	Stinger Depth	Off/On	DTW	Stinger Depth	Off/On	DTW	Stinger Depth	Off/On	DTW	Stinger Depth	Vacuum "H ₂ O"	DTW	Vacuum "H ₂ O"	DTW	Vacuum "H ₂ O"	DTW	Vacuum "H ₂ O"	DTW	units	gals
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)	(ppmv)	(ft)	(feet)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	88350		
8/17					OPEN		28'	OPEN		28'	OPEN		28'	OPEN	28'	OPEN	28'									
0600	23	210	1435	9570	3070			382			3520			5100		2200		0.18	20.85			2330				
1000	23	210	1430	8120	3380			275			3260			4700		2530		0.19	20.80			2200		206280		
1400	23	213	1602	12070	8540			669			7110			10760		5760		0.20	20.96			6820				
1800	23	218	1455	9380	8360			627			6440			9850		5330		0.21	21.05			4990		209570	121220	
8/18																										
0600	23	220	1462	8990	8040			641			5870			9970		6010		0.20	20.55			5110		213450	126100	
1000	23	215	1527	8660	7860			647	CLOSED		7130			10340		4960		OPEN	28'			5060				
1400	23	210	1546	10180	8970			0.00	20.87		7830			11520		5740		637				5640				
1800	23	217	1587	12850	9780			0.00	21.25		8460			12190		6020		1150				6370		217790	129440	
8/19																										
0800	23	213	1450	5810	6880			0.00	20.78	OPEN 28'	5840			9810		2030		2300	CLOSED			4980		220600	132250	
1200	23	215	1498	6550	7540			580			6470			10050		2500		0.05	20.23			5010				
1600	23	213	1540	8040	7890			280			7060			10400		3970		0.50	20.73			5340				
2000	23	217	1471	7930	7730			340			7120			10110		3440		0.45	20.97			6200		223560	135210	

Comments:

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 8A of 13

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/20, 2009

Client: AQUA SCIENCE ENGINEERS

Operator (s): NICK JASON

EXTRACTION WELLS															OBSERVATION WELLS									
Well I.D.					EW-1			EW-2			IW-5			MW-3		EW-3		EW-4		EW-5		Water Meter Readings	Cumul. Water Extracted	
Screen Interval: From-To (ft)					19.02			P. 18.11 W. 18.13			P. 16.85 D. 17.26			P. 17.30 W. 17.57		16.46		16.30		18.75				
Initial Depth To Water DTW (ft)					19.02			18.13			17.26			17.57		16.46		16.30		18.75				
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On VAC (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O PPMV	DTW (ft)	Vacuum "H ₂ O PPMV	DTW (ft)	Vacuum "H ₂ O PPMV	DTW (ft)	Vacuum "H ₂ O PPMV	DTW (ft)	units	gals	
8/20					OPEN		28'	OPEN		28'	OPEN		28'	OPEN	28'	OPEN	28'							
0001	23	214	1462	8710	7910			427			7390			11740		3980		0.55	21.06		5170			
0400	23	219	1471	9280	8130			578			7710			10840		3870		0.50	21.09		5010			
0800	23	215	1531	9800	8500			602	CLOSED		7180			10920		5250		0.65	21.41		5040	228450	140100	
1200	23	216	1511	8750	8400			0.00	21.05		6790			10470		5140		508	OPEN 28'		4850			
1600	23	215	1486	8400	8400			0.00	21.02		6150			10700		5450		890			5030			
2000	23	211	1448	8490	8370			0.00	21.07		6040			10010		5320		763			4910	231320	142970	
					CLOSED						CLOSED			CLOSED		CLOSED		CLOSED			CLOSED			
8/21					OPEN		28'				OPEN		28'	OPEN	28'	OPEN	28'	OPEN	28'	OPEN	28'			
0630	23	217	1431	9740	9120			0.00	19.13		7340			11780		6170		923			5670			
0800	23	215	1477	8050	7980			0.00	21.07	OPEN 28'	7200			10550		4980		1150	CLOSED		4720	234790	146440	
1200	23	216	1460	7000	7650			500			7030			10150		4640		0.38	20.66		4570			
1600	23	215	1584	9020	8300			725			7440			10230		5620		0.40	20.88		4430			
2000	23	217	1446	8340	7510			742			6910			9740		4970		0.45	20.91		4140	237840	149490	
					CLOSED						CLOSED			CLOSED		CLOSED					CLOSED			
8/22					OPEN		28'	OPEN		28'	OPEN		28'	OPEN	28'	OPEN	28'					OPEN	28'	
0630	23	213	1461	7470	7110			607			7220			11720		5730		0.15	20.53		4170			
0800	23	215	1474	7340	7050			525	CLOSED		6070			9350		4140		0.50	20.72		4080	240250	151900	
1200	23	214	1577	9300	7140			0.00	20.95		7330			9720		4600		2000	OPEN 28'		4250			
1600	23	215	1540	9610	7320			0.00	21.00		7510			10000		4680		2200			4500			
2000	23	217	1617	9470	6940			0.00	21.05		7370			9640		4470		1970			4310	244330	159980	

Comments:

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/23/2009

Page 9A of 13

Client: AQUA SCIENCE ENGINEERS

Operator (s): Nick / SACON

					EXTRACTION WELLS									OBSERVATION WELLS									Water Meter Readings	Cumul. Water Extracted
Well I.D.					EW-1			EW-2			IW-5			MW-3		EW-3		EW-4		EW-5				
Screen Interval: From-To (ft)					19.02			P. 18.11 W. 18.13			P. 16.85 W. 17.26			P. 17.70 W. 17.57		16.46		16.90		18.75				
Initial Depth To Water DTW (ft)					19.02			18.13			17.26			17.57		16.46		16.90		18.75				
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On VAC (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum H ₂ O PPMV	DTW (ft)	Vacuum PPMV	DTW (ft)	Vacuum PPMV	DTW (ft)	Vacuum PPMV	DTW (ft)	units	gals	
8/23					OPEN		28'	CLOSED			OPEN		28'	OPEN	28'	OPEN	28'	OPEN	28'	OPEN	28'			
0630	23	212	1418	8310	6710			0.00	20.78		6910			9130		4240		1930		3980				
0800	23	215	1502	8510	7430			0.00	20.95	OPEN 28'	6750			10420		4500		900	CLOSED	4850		246520	158170	
1200	23	214	1574	8950	7600			495			7330			10550		4200		0.20	20.82	4750				
1600	23	215	1478	7400	7710			475			7300			10700		5200		0.50	20.88	5030				
2000	23	218	1455	8190	7640			537			7510			10410		5970		0.45	20.89	6430		250320	161970	
					CLOSED			CLOSED			CLOSED			CLOSED		CLOSED				CLOSED				
8/24					OPEN		28'	OPEN		28'	OPEN		28'	OPEN	28'	OPEN	28'			OPEN	28'			
0630	23	211	1427	7210	6910			493			7110			9810		5430		0.25	20.15	5970				
0800	23	214	1434	7940	6980			536	CLOSED		7490			10870		6230		0.35	20.43	10240		253840	165490	
1200	23	215	1499	9150	7300			0.00	21.14		7610			10350		4810		910	OPEN 28'	4360				
1600	23	217	1503	9270	7390			0.10	21.30		8060			10400		5550		1400		4590				
2000	23	219	1471	9820	7170			0.10	21.41		8730			10980		5480		1372		4730		257530	169180	
8/25																								
0630	23	216	1413	9120	6930			0.10	20.99		7940			9930		5110		927		4120				
0800	23	215	1429	9610	7150			0.15	21.17	OPEN 28'	8370			10470		5630		1143	CLOSED	4790		262590	174040	
1200	23	217	1577	10460	8670			920			8130			11000		5780		1.20	21.43	4740				
1600	23	216	1578	10270	8600			945			8200			10500		5430		0.90	21.35	4500				
2000	23	215	1564	9980	8350			1000			8100			10620		5170		0.90	21.30	4270		266590	178240	

Comments: 8/23/09 - took total INLET VAPOR SAMPLE @ 0720 (8510 PPMV) MW-3 @ 0730 (10420 PPMV) IW-5 @ 0740 (6750 PPMV) EW-1 @ 0750 (7430 PPMV) EW-3 @ 0800 (4500 PPMV) EW-5 @ 0810 (4850 PPMV)

EW-4 @ 0820 (900 PPMV) EW-2 @ 0830 (345 PPMV)

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 10A of 13

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/26/2009

Client: AQUA SCIENCE ENGINEERS

Operator (s): NICK / JASON

		EXTRACTION WELLS											OBSERVATION WELLS										Water Meter Readings	Cumul. Water Extracted
Well I.D.		EW-1			EW-2			EW-5			MW-3		EW-3		EW-4		EW-5							
Screen Interval: From-To (ft)		P. 18.11 W. 19.02			P. 18.11 W. 18.13			P. 16.85 W. 17.26			P. 17.30 W. 17.57		16.46		16.30		18.75							
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	units	gals	
8/26					OPEN		28'	OPEN		28'	OPEN		28'	OPEN	28'	OPEN	28'	CLOSED		OPEN	28'	88350		
0630	23	211	1418	8730	8110			927			7830			10230		4980		0.30	21.10	3940				
0800	23	214	1455	8310	7770			450	CLOSED		7710			10300		4490		0.45	21.00	4470		269880	181530	
1200	23	213	1590	8450	7500			0.00	21.17		7440			9910		4510		1100	OPEN 28'	4480				
1600	23	215	1599	9700	7960			0.00	21.15		7610			10320		4740		1310		4660				
2000	23	217	1667	9240	7730			0.00	21.13		7440			9790		4660		1190		4390		273450	186100	
8/27																								
0800	23	215	1445	8450	7520			0.00	21.15		7250			9410		4470		1160	CLOSED	4100		277250	188900	
1200	23	216	1595	6430	7000			395		OPEN 28'	6890			9620		2660		0.35	20.83	4040				
1600	23	215	1571	6880	7400			420			7378			9710		3940		0.28	20.78	4150				
2000	23	216	1493	7120	7510			673			7420			10730		3520		0.25	20.81	3840		280140	191790	
8/28																								
0630	23	214	1478	6140	7120			624			7030			9420		3240		0.31	20.13	3790				
0800	23	216	1560	7700	6910			690	CLOSED		7100			9580		1525		0.35	20.68	3810		282140	193790	
1200	23	215	1565	8200	7200			0.00	21.15		7160			9200		2700		1020	OPEN 28'	3890				
1600	23	217	1571	9130	7430			0.00	21.40		6900			9050		3880		1200		3730				
2000	23	219	1513	8710	7020			0.00	21.45		6780			9320		3990		1172		3510		285680	197340	

Comments: 8/28/09 - TOOK TOTAL INLET VAPOR SAMPLE @ 0730 (7700 ppmv)

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/29/2009

Page 11A of 13

Client: AQUA SCIENCE ENGINEERS

Operator (s): Nick/JAScan

		EXTRACTION WELLS											OBSERVATION WELLS											
Well I.D.		EW-1			EW-2			EW-5			MW-3		EW-3		EW-4		EW-5		Water Meter Readings	Cumul. Water Extracted				
Screen Interval: From-To (ft)		P. 18.11			P. 18.13			P. 16.85			P. 17.30		16.46		16.30		18.75							
Initial Depth To Water DTW (ft)		19.02			W. 18.13			W. 17.26			W. 17.57		16.46		16.30		18.75							
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On VAC (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O (PPMV)	DTW (ft)	Vacuum "H ₂ O (PPMV)	DTW (ft)	Vacuum "H ₂ O (PPMV)	DTW (ft)	Vacuum "H ₂ O (PPMV)	DTW (ft)	units	gals	
8/29					OPEN		28'	CLOSED			OPEN		28'	OPEN	28'	OPEN	28'	CLOSED			OPEN	28'		
0630	23	215	1499	6900																				
0800	23	214	1490	7100	7060			0.00	21.07			6770		9180		2670		1275	CLOSED		3930	288850	200500	
1200	23	215	1520	7710	7500			480		OPEN 28'		7090		9410		3300		0.60	21.03		3980			
1600	23	216	1506	7890	7610			495				7220		9700		3800		0.60	21.14		3950			
2000	23	214	1514	8230	7700			573				7190		10320		3950		0.55	21.25		4170	297430	204000	
8/30																								
0630	23	217	1473	7740	7510			513				6830		9110		3740		0.15	26.13		4480			
0800	23	219	1481	7580	7340			521	CLOSED			6970		9230		3590		0.60	21.20		3910	295640	207290	
1200	23	216	1597	9800	8000			0.00	21.58			7330		10100		3900		1200	OPEN 28'		4350			
1600	23	218	1572	10700	8240			0.00	21.93			7380		10260		5200		1300			4200			
2000	23	215	1460	10880	8310			0.00	22.00			7440		10600		5400		1350			4220	300150	211800	
8/31																								
0630	23	217	1442	9420	7910			0.00	21.99			7240		9980		5130		1240			4310			
0800	23	216	1494	10500	6900			0.00	22.06			6770		9880		4400		1310	CLOSED		3520	302630	214280	
1200	23	217	1593	7840	6880			410		OPEN 28'		7210		9380		4470		0.45	20.90		3690			
1600	23	215	1525	9410	7160			520				7500		9430		4700		0.25	20.90		3800			
2000	23	216	1553	9670	7330			690				7710		9800		4800		0.25	20.94		3840	305270	216920	

Comments:

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 12A of 13

Project Location: 250 8th STREET
Client: AQUA SCIENCE ENGINEERS

City: OAKLAND

Site #: LIM PROPERTY

Date: 9/1/2009

Operator (s): DANCAW/JASON

		EXTRACTION WELLS											OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.		EW-1			EW-2			EW-5			MW-3		EW-3		EW-4		EW-5						
Screen Interval: From-To (ft)		P. 18.11			P. 18.11			P. 16.85			P. 17.30												
Initial Depth To Water DTW (ft)		W. 18.13			W. 17.26			W. 17.57		16.46		16.30		18.75									
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On VAC (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O" (PPMV)	DTW (ft)	Vacuum "H ₂ O" (PPMV)	DTW (ft)	Vacuum "H ₂ O" (PPMV)	DTW (ft)	Vacuum "H ₂ O" (PPMV)	DTW (ft)	units	gals
9/1					OPEN		28'	OPEN		28'	OPEN		28'	OPEN	28'	OPEN	28'	CLOSED		OPEN	28'		
0630	23	210	1565	9150	6800			600			7200			9600		4230		0.40	20.89	3720			
0800	23	215	1578	9100	6950			550	CLOSED		7300			9530		4490		0.40	20.95	3500		308310	219960
1200	23	216	1576	9810	7110			0.00	21.25		7470			9480		4730		1050	OPEN 28'	3700			
1600	23	215	1545	10660	7270			0.00	21.03		7140			9080		4390		1080		3600			
2000	23	211	15410	8620	7190			0.00	21.08		7000			9010		3990		1110		3520		310900	222500
9/2																							
0630	23	216	1500	7000	6810			0.00	20.76		6020			7880		2690		1160		3530			
0800	23	217	1486	7180	6890			0.00	20.81		6160			8010		2900		1220	CLOSED	3610		312590	224240
1200	23	218	1531	7740	6890			595		OPEN 28'	6900			8430		3800		0.30	20.66	3430			
1600	23	216	1491	8210	6510			625			7050			8550		3940		0.30	20.79	3300			
2000	23	216	1490	8340	6520			630			7100			8540		3910		0.30	20.82	3260		314690	226340
9/3																							
0630	23	216	1485	7060	6000			400			6220			8200		3430		0.20	20.70	3010			
0800	23	215	1500	7340	6180			450	CLOSED		6300			8300		3610		0.30	20.75	3040		317500	229150
1200	23	217	1526	8400	6200			0.00	20.81		6610			7730		3830		945	OPEN 28'	2910			
1600	23	216	1553	7400	5600			0.00	20.88		6840			7600		2950		775		2700			
2000	23	215	1569	7780	6610			0.00	20.89		6770			7350		3570		920		3040		320000	231650
2140					CLOSED	21.10		CLOSED	20.82		CLOSED	19.25		CLOSED	19.78	CLOSED	21.15	CLOSED	20.70	CLOSED	20.81		

Comments: 9/1/09 - TOOK TOTAL INLET VAPOR SAMPLE @ 1200 (9810 PPMV)
 9/3/09 - TOOK VAPOR SAMPLE OF EW-2 @ 0755 (450 PPMV) TOTAL INLET @ 2000 (7780 PPMV) EW-5 @ 2010 (6770 PPMV) MW-3 @ 2020 (7350 PPMV) EW-4 @ 2030 (920 PPMV)
 EW-3 @ 2040 (3570 PPMV) EW-5 @ 2050 (3040 PPMV) EW-1 @ 2100 (6610 PPMV)

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/3/2009

Page 10 of 12

Client: AQUA SCIENCE ENGINEERS

Operator (s): DAVIS / DTRELL

					EXTRACTION WELLS									OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.					EW-6																			
Screen Interval: From-To (ft)					17.85																			
Initial Depth To Water DTW (ft)					17.85																			
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	units	gals	
8/3					OPEN	17.85	27'																	
2300	24	53	1407	9750																				
8/4																								
0001	24	51	1410	8640																				
0100	24	53	1403	8610																				
0200	24	50	1409	8340																				
0400	24	51	1430	8310																				
0500	24	51	1403	8090																				
0600	24	54	1403	8140	CLOSED	20.81																		
2200	24	53	1400	7140	OPEN	17.93	27'																	
2300	24	51	1401	7210																				
8/5																								
0001	24	52	1403	6980																				
0100	24	50	1401	6870																				
0200	24	51	1400	6800																				
0500	24	52	1401	6810																				
0600	24	53	1402	6840	CLOSED	20.73																		

Comments: 8/3 - TOOK VAPOR SAMPLE OF EW-6 @ 2320 (9750 ppmv)

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/7/2009

Page 2E of 12

Client: AQUA SCIENCE ENGINEERS

Operator (s): DAVIS / DRELL

		EXTRACTION WELLS											OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.		EW-6																					
Screen Interval: From-To (ft)																							
Initial Depth To Water DTW (ft)		19.26																					
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	units	gals
8/7					OPEN	19.26	27'																
2200	25	47	1419	5720																			
2300	25	45	1463	8950																			
8/8																							
0001	25	46	1451	13000																			
0100	25	49	1446	12630																			
0200	25	45	1502	12020																			
0300	25	41	1489	12150																			
0400	25	43	1465	12090																			
0500	25	48	1471	12310	CLOSED	21.83																	
8/9					OPEN	18.16	27'																
2200	25	43	1413	10710																			
2300	25	47	1427	12140																			
8/10																							
0001	25	49	1431	13180																			
0100	25	44	1429	15210																			
0200	25	46	1435	14580																			
0300	25	44	1428	15770																			

Comments:

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.
(714) 734-9137

Project Location: 250 8th STREET
Client: AQUA SCIENCE ENGINEERS

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/10/2009

Page 3B of 12

Operator (s): DAVIS / DRELL / BERNARDO

		EXTRACTION WELLS											OBSERVATION WELLS										Water Meter Readings	Cumul. Water Extracted	
Well I.D.		EW-6																							
Screen Interval: From-To (ft)		18.16																							
Initial Depth To Water DTW (ft)																							units	gals	
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)				
8/10																									
0400	25	41	1433	16910																					
0500	25	45	1437	16130	CLOSED	23.20																			
8/11					OPEN	19.40	27'																		
2200	25	40	1410	10100																					
2300	25	42	1461	10920																					
8/12																									
0001	25	41	1414	11500																					
0100	25	40	1455	12100																					
0200	25	42	1449	12610																					
0300	25	42	1466	13410																					
0400	25	41	1471	14030																					
0500	25	43	1458	13780	CLOSED	22.07																			
8/13					OPEN	18.79	27'																		
2200	25	37	1403	3760																					
2300	25	40	1458	7650																					

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/14/2009

Page 4B of 12

Client: AQUA SCIENCE ENGINEERS

Operator (s): BERNARDO

		EXTRACTION WELLS											OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.		EW-6																					
Screen Interval: From-To (ft)		18.79																					
Initial Depth To Water DTW (ft)		18.79																					
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	units	gals
8/14					OPEN	18.79	27'																
0001	25	41	1463	9930																			
0100	25	43	1486	11350																			
0200	25	40	1470	11910																			
0300	25	42	1472	12040																			
0400	25	41	1480	12180																			
0500	25	44	1474	12330	CLOSED	21.94																	
					OPEN	19.86	27'																
2300	25	40	1460	11900																			
8/15																							
0001	25	41	1478	12330																			
0100	25	42	1500	12690																			
0200	25	43	1497	12600																			
0300	25	41	1485	12750																			
0400	25	41	1480	12800																			
0500	25	40	1488	12740	CLOSED	22.73																	
8/16					OPEN	19.91	27'																
2300	25	40	1482	11170																			

Comments:

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/17/2009

Page 5B of 12

Client: AQUA SCIENCE ENGINEERS

Operator (s): BERNARDO/NICK

		EXTRACTION WELLS											OBSERVATION WELLS										Water Meter Readings	Cumul. Water Extracted
Well I.D.		EW-6																						
Screen Interval: From-To (ft)		19.91																						
Initial Depth To Water DTW (ft)		19.91																						
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	units	gals	
8/17					OPEN	19.91	27'																	
0001	25	37	1562	14130																				
0100	25	42	1564	14980																				
0200	25	40	1551	15360																				
0300	25	41	1563	14910																				
0400	25	40	1518	14870																				
0500	25	40	1546	14950	CLOSED	23.02																		
8/18					OPEN	19.94	27'																	
2300	25	43	1408	11350																				
8/19																								
0001	25	47	1402	12470																				
0100	25	45	1403	15130																				
0200	25	48	1407	16910																				
0300	25	46	1418	15780	CLOSED	21.23																		
8/20					OPEN	19.73	27'																	
2200	25	41	1421	14710																				
2300	26	43	1428	13930																				

Comments: 8/18 - Took VAPOR SAMPLE of EW-6 @ 2315

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/21/2009

Page 6B of 12

Client: AQUA SCIENCE ENGINEERS

Operator (s): NICK

					EXTRACTION WELLS									OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.					EW-6																			
Screen Interval: From-To (ft)					19.73																			
Initial Depth To Water DTW (ft)					19.73																			
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	units	gals	
8/21					OPEN	19.73	27'																	
0001	25	44	1423	14230																				
0100	25	45	1417	14740																				
0200	25	48	1421	14970																				
0300	25	44	1434	15640																				
0400	25	41	1428	16770																				
0500	25	45	1427	16320	CLOSED	22.41																		
2200	25	43	1416	11730	OPEN	19.97	27'																	
2300	25	46	1413	10140																				
8/22																								
0001	25	43	1411	10980																				
0100	25	44	1417	11320																				
0200	25	41	1419	12110																				
0300	25	45	1423	14710																				
0400	25	48	1418	14240																				
0500	25	44	1427	15310	CLOSED	22.17																		
2200	25	41	1419	9640	OPEN	19.97	27'																	
2300	25	43	1424	11390																				

Comments:

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/23/2009

Page 28 of 12

Client: AQUA SCIENCE ENGINEERS

Operator (s): Nick

		EXTRACTION WELLS											OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.		EW-6			MW-7			MW-4															
Screen Interval: From-To (ft)																							
Initial Depth To Water DTW (ft)		19.93																					
Time	Unit Vacuum (Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	Vacuum "H ₂ O (ft)	DTW (ft)	units	gals
8/23																							
0001	25	42	1431	13170																			
0100	25	44	1442	14110																			
0200	25	44	1458	14520																			
0300	25	43	1447	14280																			
0400	25	41	1453	13970																			
0500	25	47	1449	13320	Obs'd	21.99																	
2200	25	48	1417	11140	OPEN	19.37	27'																
2300	25	43	1421	10520																			
8/24																							
0001	25	41	1419	10130																			
0100	25	44	1423	10270																			
0200	25	42	1427	10480																			
0300	25	47	1421	9970																			
0400	25	45	1428	10320																			
0500	25	46	1426	10140	Obs'd	21.78																	
2200	25	41	1419	9810	Obs'd	19.16	27'		19.71			19.83											
2300	25	44	1423	10230				No PRODUCT			No PRODUCT												

Comments: 8/23- Took VAPOR SAMPLE at EW-6 @ 2230

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/25/2009

Page 8 of 12

Client: AQUA SCIENCE ENGINEERS

Operator (s): NICK

		EXTRACTION WELLS											OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.		EW-6			MW-7			MW-4															
Screen Interval: From-To (ft)																							
Initial Depth To Water DTW (ft)		19.16			19.71			19.83															
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	units	gals
8/25																							
0001	25	43	1426	10480																			
0100	25	47	1431	10970																			
0200	25	45	1448	10530																			
0300	25	46	1429	10210																			
0400	25	49	1437	10980																			
0600	25	48	1448	11320	Closed	21.93																	
2200	25	43	1419	8470	OPEN	19.98	27'		19.77			19.87											
2300	25	47	1421	9810				No Product			No Product												
8/26																							
0001	25	46	1428	9140																			
0100	25	44	1413	9320																			
0200	25	41	1419	9770																			
0300	25	45	1424	10230																			
0400	25	46	1428	11410																			
0500	25	43	1437	10990	Closed	22.41			19.87			20.01											
8/27					OPEN	19.93	27'																
2200	25	47	1429	9320																			
2300	25	49	1431	9740																			

Comments:

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/28 2009

Page 9B of 12

Client: AQUA SCIENCE ENGINEERS

Operator (s): NECK

					EXTRACTION WELLS									OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.					EW-16																			
Screen Interval: From-To (ft)					19.37																			
Initial Depth To Water DTW (ft)					19.37																			
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	units	gals	
8/28					OPEN		27'																	
0001	25	43	1448	9940																				
0100	25	44	1441	9830																				
0200	25	41	1453	9620																				
0300	25	49	1447	9790																				
0400	25	47	1439	9640																				
0500	25	44	1442	9980	CLOSED	22.14																		
2200	25	41	1421	7210	OPEN	19.62	27'																	
2300	25	45	1427	8740																				
8/29																								
0001	25	43	1432	9310																				
0100	25	41	1446	9190																				
0200	25	42	1439	9470																				
0300	25	41	1444	9530																				
0400	25	47	1437	9380																				
0500	25	41	1432	9720	CLOSED	22.51																		
2200	25	44	1417	8320	OPEN	19.73	27'																	
2300	25	42	1429	9110																				

Comments: 8/28 - Took VAPOR SAMPLE of EW-16 @ 0455

HIGH VACUUM

SVE or

DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 106 of 12

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 8/13/2009

Client: AQUA SCIENCE ENGINEERS

Operator (s): NICK

		EXTRACTION WELLS											OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.		EW-6																					
Screen Interval: From-To (ft)		19.73																					
Initial Depth To Water DTW (ft)																							
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Slinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Slinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Slinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	units	gals
8/30					OPEN	19.73	27'																
0001	25	41	1418	9940																			
0100	25	47	1413	10210																			
0200	25	43	1421	10130																			
0300	25	49	1417	9950																			
0400	25	40	1424	9810																			
0500	25	42	1419	9700	CLOSED	22.71																	
2200	25	44	1418	8710	OPEN	19.84	27'																
2300	25	47	1421	9310																			
8/31																							
0001	25	43	1437	9740																			
0100	25	46	1429	9130																			
0200	25	41	1432	9770																			
0300	25	48	1428	9680																			
0400	25	47	1431	9590																			
0500	25	44	1433	9790	CLOSED	22.83																	
2200	25	46	1434	8900	OPEN	19.74	27'																
2300	25	42	1432	9260																			

Comments:

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Page 11B of 12

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 9/11/2009

Client: AQUA SCIENCE ENGINEERS

Operator (s): DAMEAN

		EXTRACTION WELLS											OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.		EW-6																					
Screen Interval: From-To (ft)		19.73																					
Initial Depth To Water DTW (ft)		19.73																	units	gals			
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Stinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O			DTW (ft)	Vacuum "H ₂ O	DTW (ft)
9/1					on	19.73	27'																
0001	25	42	1425	9690																			
0100	25	44	1430	9590																			
0200	25	43	1432	9420																			
0300	25	41	1440	9540																			
0400	25	44	1426	9510																			
0500	25	45	1430	9480	off	22.81																	
2200	25	42	1430	8310	on	19.75	27'																
2300	25	44	1426	8290																			
9/2																							
0001	25	43	1426	8240																			
0100	25	45	1440	8270																			
0200	25	44	1442	9500																			
0300	25	47	1418	10154																			
0400	25	43	1441	11465																			
0500	25	45	1425	12400	off	23.10																	
2200	25	42	1430	12000	on	19.80	27'																
2300	25	40	1450	12050																			

Comments:

HIGH VACUUM

SVE or DPE

FIELD DATA SHEET

CALCLEAN INC.

(714) 734-9137

Project Location: 250 8th STREET

City: OAKLAND

Site #: LIM PROPERTY

Date: 9/3/2009

Page 12B of 12

Client: AQUA SCIENCE ENGINEERS

Operator (s): DAMEAN

		EXTRACTION WELLS											OBSERVATION WELLS								Water Meter Readings	Cumul. Water Extracted	
Well I.D.		EW-6			MW-4			MW-7															
Screen Interval: From-To (ft)		19.73																					
Initial Depth To Water DTW (ft)		19.73																	units	gals			
Time	Unit Vacuum ("Hg.)	Air Flowrate (cfm)	TOX Temp. (degF)	Vapor Inlet Conc. (ppmv)	Off/On (ppmv)	DTW (ft)	Slinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Slinger Depth (feet)	Off/On (ppmv)	DTW (ft)	Slinger Depth (feet)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O	DTW (ft)	Vacuum "H ₂ O			DTW (ft)	Vacuum "H ₂ O	DTW (ft)
9-3					on	19.80	27'																
0001	25	42	1435	8950																			
0100	25	46	1452	9028																			
0200	25	44	1440	10840																			
0300	25	48	1420	11900																			
0400	25	40	1425	13000																			
0500	25	44	1430	13950	off	23.25																	
2200	25	48	1425	8900	on		27'																
2300	25	43	1416	9110																			
9-4																							
0001	25	42	1431	9405																			
0100	25	46	1440	11420																			
0200	25	43	1432	11989																			
0300	25	48	1430	12625																			
0400	25	45	1442	14950																			
0500	25	42	1450	15400	off	19.70			19.71			19.00										322420	234070
0800						19.58																	

Comments: 9-4-09 Took VAPOR sample EW-6 @ 0500 (15400 ppmv)



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX D

ANALYTICAL REPORT AND CHAIN OF CUSTODY FROM KIFF FOR SOIL SAMPLES COLLECTED DURING EXTRACTION WELL INSTALLATION



Report Number : 68653

Date : 06/02/2009

Robert Kitay
Aqua Science Engineers, Inc.
55 Oak Court, Suite 220
Danville, CA 94526

Subject : 10 Soil Samples
Project Name : Lim
Project Number : 2808

Dear Mr. Kitay,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 68653

Date : 06/02/2009

Subject : 10 Soil Samples
Project Name : Lim
Project Number : 2808

Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with samples EW-1 15.0', EW-1 20.0', EW-2 25.0', EW-2 30.0', EW-3 20.0', EW-3 25.0', EW-4 20.0', EW-4 25.0', EW-5 15.0', and EW-5 20.0' for the analyte TPH as Diesel (Silica Gel) were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.



Report Number : 68653

Date : 06/02/2009

Project Name : **Lim**

Project Number : **2808**

Sample : **EW-1 15.0'**

Matrix : Soil

Lab Number : 68653-03

Sample Date :05/19/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.33	0.025	mg/Kg	EPA 8260B	05/28/2009
Toluene	1.2	0.025	mg/Kg	EPA 8260B	05/28/2009
Ethylbenzene	0.89	0.025	mg/Kg	EPA 8260B	05/28/2009
Total Xylenes	4.2	0.025	mg/Kg	EPA 8260B	05/28/2009
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/29/2009
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/29/2009
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/29/2009
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/29/2009
Tert-Butanol	0.035	0.025	mg/Kg	EPA 8260B	05/29/2009
TPH as Gasoline	48	2.5	mg/Kg	EPA 8260B	05/28/2009
1,2-Dichloroethane-d4 (Surr)	98.7		% Recovery	EPA 8260B	05/28/2009
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	05/28/2009
2-Bromochlorobenzene (Surr)	86.8		% Recovery	EPA 8260B	05/28/2009
TPH as Diesel (Silica Gel)	26	1.0	mg/Kg	M EPA 8015	05/28/2009
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	113		% Recovery	M EPA 8015	05/28/2009



Report Number : 68653

Date : 06/02/2009

Project Name : **Lim**

Project Number : **2808**

Sample : **EW-1 20.0'**

Matrix : Soil

Lab Number : 68653-04

Sample Date :05/19/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	43	0.25	mg/Kg	EPA 8260B	05/28/2009
Toluene	260	0.90	mg/Kg	EPA 8260B	05/28/2009
Ethylbenzene	98	0.25	mg/Kg	EPA 8260B	05/28/2009
Total Xylenes	470	0.90	mg/Kg	EPA 8260B	05/28/2009
Methyl-t-butyl ether (MTBE)	< 0.25	0.25	mg/Kg	EPA 8260B	05/28/2009
Diisopropyl ether (DIPE)	< 0.25	0.25	mg/Kg	EPA 8260B	05/28/2009
Ethyl-t-butyl ether (ETBE)	< 0.25	0.25	mg/Kg	EPA 8260B	05/28/2009
Tert-amyl methyl ether (TAME)	< 0.25	0.25	mg/Kg	EPA 8260B	05/28/2009
Tert-Butanol	< 1.5	1.5	mg/Kg	EPA 8260B	05/28/2009
TPH as Gasoline	5000	90	mg/Kg	EPA 8260B	05/28/2009
1,2-Dichloroethane-d4 (Surr)	91.0		% Recovery	EPA 8260B	05/28/2009
Toluene - d8 (Surr)	93.6		% Recovery	EPA 8260B	05/28/2009
2-Bromochlorobenzene (Surr)	86.5		% Recovery	EPA 8260B	05/28/2009
TPH as Diesel (Silica Gel)	2000	1.0	mg/Kg	M EPA 8015	05/28/2009
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	111		% Recovery	M EPA 8015	05/28/2009



Report Number : 68653

Date : 06/02/2009

Project Name : **Lim**

Project Number : **2808**

Sample : **EW-2 25.0'**

Matrix : Soil

Lab Number : 68653-06

Sample Date :05/19/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.46	0.0050	mg/Kg	EPA 8260B	05/28/2009
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Ethylbenzene	0.15	0.0050	mg/Kg	EPA 8260B	05/28/2009
Total Xylenes	0.16	0.0050	mg/Kg	EPA 8260B	05/28/2009
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Tert-Butanol	0.026	0.0050	mg/Kg	EPA 8260B	05/28/2009
TPH as Gasoline	6.6	1.0	mg/Kg	EPA 8260B	05/28/2009
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	05/28/2009
Toluene - d8 (Surr)	97.9		% Recovery	EPA 8260B	05/28/2009
TPH as Diesel (Silica Gel)	14	1.0	mg/Kg	M EPA 8015	05/28/2009
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	83.0		% Recovery	M EPA 8015	05/28/2009



Report Number : 68653

Date : 06/02/2009

Project Name : **Lim**

Project Number : **2808**

Sample : **EW-2 30.0'**

Matrix : Soil

Lab Number : 68653-07

Sample Date :05/19/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.098	0.0050	mg/Kg	EPA 8260B	05/30/2009
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Ethylbenzene	0.15	0.0050	mg/Kg	EPA 8260B	05/30/2009
Total Xylenes	0.17	0.0050	mg/Kg	EPA 8260B	05/30/2009
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
TPH as Gasoline	7.9	1.0	mg/Kg	EPA 8260B	05/30/2009
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	05/30/2009
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	05/30/2009
TPH as Diesel (Silica Gel)	8.6	1.0	mg/Kg	M EPA 8015	05/28/2009
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	105		% Recovery	M EPA 8015	05/28/2009

Project Name : **Lim**

Project Number : **2808**

Sample : **EW-3 20.0'**

Matrix : Soil

Lab Number : 68653-11

Sample Date :05/19/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	25	0.40	mg/Kg	EPA 8260B	05/28/2009
Toluene	110	0.40	mg/Kg	EPA 8260B	05/28/2009
Ethylbenzene	40	0.40	mg/Kg	EPA 8260B	05/28/2009
Total Xylenes	180	0.40	mg/Kg	EPA 8260B	05/28/2009
Methyl-t-butyl ether (MTBE)	< 0.40	0.40	mg/Kg	EPA 8260B	05/28/2009
Diisopropyl ether (DIPE)	< 0.40	0.40	mg/Kg	EPA 8260B	05/28/2009
Ethyl-t-butyl ether (ETBE)	< 0.40	0.40	mg/Kg	EPA 8260B	05/28/2009
Tert-amyl methyl ether (TAME)	< 0.40	0.40	mg/Kg	EPA 8260B	05/28/2009
Tert-Butanol	< 2.0	2.0	mg/Kg	EPA 8260B	05/28/2009
TPH as Gasoline	2200	40	mg/Kg	EPA 8260B	05/28/2009
1,2-Dichloroethane-d4 (Surr)	97.9		% Recovery	EPA 8260B	05/28/2009
Toluene - d8 (Surr)	97.4		% Recovery	EPA 8260B	05/28/2009
2-Bromochlorobenzene (Surr)	93.2		% Recovery	EPA 8260B	05/28/2009
TPH as Diesel (Silica Gel)	330	8.0	mg/Kg	M EPA 8015	05/29/2009
(Note: Some hydrocarbons lower-boiling, some higher-boiling than Diesel.)					
Octacosane (Silica Gel Surr)	Diluted Out		% Recovery	M EPA 8015	05/29/2009



Report Number : 68653

Date : 06/02/2009

Project Name : **Lim**

Project Number : **2808**

Sample : **EW-3 25.0'**

Matrix : Soil

Lab Number : 68653-12

Sample Date :05/19/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	13	0.20	mg/Kg	EPA 8260B	05/28/2009
Toluene	2.3	0.20	mg/Kg	EPA 8260B	05/28/2009
Ethylbenzene	5.1	0.20	mg/Kg	EPA 8260B	05/28/2009
Total Xylenes	16	0.20	mg/Kg	EPA 8260B	05/28/2009
Methyl-t-butyl ether (MTBE)	< 0.20	0.20	mg/Kg	EPA 8260B	05/28/2009
Diisopropyl ether (DIPE)	< 0.20	0.20	mg/Kg	EPA 8260B	05/28/2009
Ethyl-t-butyl ether (ETBE)	< 0.20	0.20	mg/Kg	EPA 8260B	05/28/2009
Tert-amyl methyl ether (TAME)	< 0.20	0.20	mg/Kg	EPA 8260B	05/28/2009
Tert-Butanol	< 0.90	0.90	mg/Kg	EPA 8260B	05/28/2009
TPH as Gasoline	1200	20	mg/Kg	EPA 8260B	05/28/2009
1,2-Dichloroethane-d4 (Surr)	92.5		% Recovery	EPA 8260B	05/28/2009
Toluene - d8 (Surr)	93.5		% Recovery	EPA 8260B	05/28/2009
2-Bromochlorobenzene (Surr)	95.0		% Recovery	EPA 8260B	05/28/2009
TPH as Diesel (Silica Gel)	1200	1.0	mg/Kg	M EPA 8015	05/28/2009
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	96.3		% Recovery	M EPA 8015	05/28/2009



Report Number : 68653

Date : 06/02/2009

Project Name : **Lim**

Project Number : **2808**

Sample : **EW-4 20.0'**

Matrix : Soil

Lab Number : 68653-17

Sample Date :05/21/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Ethylbenzene	0.0070	0.0050	mg/Kg	EPA 8260B	05/28/2009
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
TPH as Gasoline	2.9	1.0	mg/Kg	EPA 8260B	05/28/2009
1,2-Dichloroethane-d4 (Surr)	92.9		% Recovery	EPA 8260B	05/28/2009
Toluene - d8 (Surr)	94.6		% Recovery	EPA 8260B	05/28/2009
2-Bromochlorobenzene (Surr)	86.8		% Recovery	EPA 8260B	05/28/2009
TPH as Diesel (Silica Gel)	15	1.0	mg/Kg	M EPA 8015	05/28/2009
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	101		% Recovery	M EPA 8015	05/28/2009



Report Number : 68653

Date : 06/02/2009

Project Name : **Lim**

Project Number : **2808**

Sample : **EW-4 25.0'**

Matrix : Soil

Lab Number : 68653-18

Sample Date :05/21/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	05/28/2009
1,2-Dichloroethane-d4 (Surr)	99.7		% Recovery	EPA 8260B	05/28/2009
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	05/28/2009
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	05/28/2009
Octacosane (Silica Gel Surr)	100		% Recovery	M EPA 8015	05/28/2009

Project Name : **Lim**

Project Number : **2808**

Sample : **EW-5 15.0'**

Matrix : Soil

Lab Number : 68653-22

Sample Date :05/21/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.044	0.0050	mg/Kg	EPA 8260B	05/28/2009
Toluene	0.013	0.0050	mg/Kg	EPA 8260B	05/28/2009
Ethylbenzene	0.24	0.0050	mg/Kg	EPA 8260B	05/28/2009
Total Xylenes	0.19	0.0050	mg/Kg	EPA 8260B	05/28/2009
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/28/2009
Tert-Butanol	< 0.015	0.015	mg/Kg	EPA 8260B	05/28/2009
TPH as Gasoline	21	1.0	mg/Kg	EPA 8260B	05/28/2009
1,2-Dichloroethane-d4 (Surr)	96.4		% Recovery	EPA 8260B	05/28/2009
Toluene - d8 (Surr)	97.4		% Recovery	EPA 8260B	05/28/2009
TPH as Diesel (Silica Gel)	54	1.0	mg/Kg	M EPA 8015	05/28/2009
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	121		% Recovery	M EPA 8015	05/28/2009

Project Name : **Lim**

Project Number : **2808**

Sample : **EW-5 20.0'**

Matrix : Soil

Lab Number : 68653-23

Sample Date :05/21/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	8.6	0.50	mg/Kg	EPA 8260B	05/28/2009
Toluene	53	0.50	mg/Kg	EPA 8260B	05/28/2009
Ethylbenzene	31	0.50	mg/Kg	EPA 8260B	05/28/2009
Total Xylenes	120	0.50	mg/Kg	EPA 8260B	05/28/2009
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	mg/Kg	EPA 8260B	05/28/2009
Diisopropyl ether (DIPE)	< 0.50	0.50	mg/Kg	EPA 8260B	05/28/2009
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	mg/Kg	EPA 8260B	05/28/2009
Tert-amyl methyl ether (TAME)	< 0.50	0.50	mg/Kg	EPA 8260B	05/28/2009
Tert-Butanol	< 2.5	2.5	mg/Kg	EPA 8260B	05/28/2009
TPH as Gasoline	2900	50	mg/Kg	EPA 8260B	05/28/2009
1,2-Dichloroethane-d4 (Surr)	97.4		% Recovery	EPA 8260B	05/28/2009
Toluene - d8 (Surr)	97.1		% Recovery	EPA 8260B	05/28/2009
2-Bromochlorobenzene (Surr)	85.8		% Recovery	EPA 8260B	05/28/2009
TPH as Diesel (Silica Gel)	700	1.0	mg/Kg	M EPA 8015	05/28/2009
(Note: Hydrocarbons are lower-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	106		% Recovery	M EPA 8015	05/28/2009

QC Report : Method Blank DataProject Name : **Lim**Project Number : **2808**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 1.0	1.0	mg/Kg	M EPA 8015	05/28/2009
Octacosane (Silica Gel Surr)	84.3		%	M EPA 8015	05/28/2009
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/27/2009
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/27/2009
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/27/2009
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/27/2009
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/27/2009
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/27/2009
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/27/2009
Tert-Butanol	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/27/2009
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/27/2009
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	05/27/2009
1,2-Dichloroethane-d4 (Surr)	101		%	EPA 8260B	05/27/2009
Toluene - d8 (Surr)	99.4		%	EPA 8260B	05/27/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Diisopropyl ether (DIPE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Ethyl-t-butyl ether (ETBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
Tert-amyl methyl ether (TAME)	< 0.0050	0.0050	mg/Kg	EPA 8260B	05/30/2009
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	05/30/2009
1,2-Dichloroethane-d4 (Surr)	106		%	EPA 8260B	05/30/2009
Toluene - d8 (Surr)	96.2		%	EPA 8260B	05/30/2009

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Lim**Project Number : **2808**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)	68653-07	8.6	20.0	20.0	25.5	35.9	mg/Kg	M EPA 8015	5/28/09	89.1	126	34.0	60-140	25
Benzene	68624-01	<0.0050	0.0404	0.0400	0.0357	0.0355	mg/Kg	EPA 8260B	5/27/09	88.4	88.7	0.330	70-130	25
Methyl-t-butyl ether	68624-01	<0.0050	0.0405	0.0402	0.0327	0.0332	mg/Kg	EPA 8260B	5/27/09	80.7	82.6	2.27	70-130	25
Tert-Butanol	68624-01	<0.0050	0.200	0.199	0.172	0.177	mg/Kg	EPA 8260B	5/27/09	85.7	89.1	3.83	70-130	25
Toluene	68624-01	<0.0050	0.0399	0.0395	0.0360	0.0358	mg/Kg	EPA 8260B	5/27/09	90.3	90.6	0.427	70-130	25
Methyl-t-butyl ether	68603-01	<0.0050	0.0400	0.0403	0.0320	0.0359	mg/Kg	EPA 8260B	5/28/09	79.9	89.1	10.8	70-130	25
Tert-Butanol	68603-01	0.069	0.198	0.199	0.241	0.238	mg/Kg	EPA 8260B	5/28/09	87.1	84.8	2.70	70-130	25
Benzene	68603-12	<0.0050	0.0404	0.0404	0.0350	0.0355	mg/Kg	EPA 8260B	5/30/09	86.8	87.9	1.24	70-130	25
Methyl-t-butyl ether	68603-12	<0.0050	0.0405	0.0405	0.0325	0.0336	mg/Kg	EPA 8260B	5/30/09	80.3	82.9	3.14	70-130	25
Toluene	68603-12	<0.0050	0.0399	0.0399	0.0352	0.0358	mg/Kg	EPA 8260B	5/30/09	88.3	89.9	1.78	70-130	25

QC Report : Laboratory Control Sample (LCS)Project Name : **Lim**Project Number : **2808**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH-D (Si Gel)	20.0	mg/Kg	M EPA 8015	5/28/09	83.6	70-130
Methyl-t-butyl ether	0.0406	mg/Kg	EPA 8260B	5/28/09	86.8	70-130
Tert-Butanol	0.201	mg/Kg	EPA 8260B	5/28/09	95.4	70-130
Benzene	0.0406	mg/Kg	EPA 8260B	5/27/09	90.2	70-130
Methyl-t-butyl ether	0.0407	mg/Kg	EPA 8260B	5/27/09	87.2	70-130
Tert-Butanol	0.201	mg/Kg	EPA 8260B	5/27/09	87.2	70-130
Toluene	0.0401	mg/Kg	EPA 8260B	5/27/09	91.2	70-130
Benzene	0.0406	mg/Kg	EPA 8260B	5/30/09	91.5	70-130
Methyl-t-butyl ether	0.0407	mg/Kg	EPA 8260B	5/30/09	87.0	70-130
Toluene	0.0401	mg/Kg	EPA 8260B	5/30/09	93.1	70-130

Aqua Science Engineers, Inc.
 208 W. El Pintado Road
 Danville, CA 94526
 (925) 820-9391
 FAX (925) 837-4853

Chain of Custody

68653

PAGE 2 of 3

SAMPLER (SIGNATURE)

Robert E. Kirby

PROJECT NAME Lim

JOB NO. 2808

ADDRESS 250 8th Street, Oakland, CA

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL w/ Silica (EPA 3510/8015) Gel Cleanup	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	CAM 17 METALS (EPA 6010+7000)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	Pb (TOTAL or DISSOLVED) (EPA 6010)	PESTICIDES (EPA 8081)	FUEL OXYGENATES (EPA 8260)	PURGEABLE HALOCARBONS (EPA 601/8010)	TPH-G/BTEX/5 OXYS (EPA METHOD 8260)	MULTI-RANGE HYDROCARBONS WITH SILICA GEL CLEANUP (EPA 8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	LUFT METALS (5) (EPA 6010+7000)	COMPOSITE 4:1	EDF	HOLD	
EW-3 25.0'	5-19-09	1537	S	1		X								X							
EW-3 30.0'	↓	1600																			
EW-4 5.0'	5-21-09	810																			X
EW-4 10.0'		815																			X
EW-4 15.0'		823																			X
EW-4 20.0'		833				X								X							X
EW-4 25.0'		846				X								X							X
EW-4 30.0'		902																			X
EW-5 5.0'		1039																			X
EW-5 10.0'		1044																			X
EW-5 15.0'	↓	1051	↓	↓		X								X							X

12
13
14
15
16
17
18
19
20
21
22

RELINQUISHED BY:

Robert E. Kirby
(signature) (time)

Robert E. Kirby
(printed name) (date)

Company-ASE, INC.

RECEIVED BY:

[Signature]
(signature) (time)

[Signature]
(printed name) (date)

Company-

RELINQUISHED BY:

[Signature]
(signature) (time)

[Signature]
(printed name) (date)

Company-

RECEIVED BY LABORATORY:

[Signature]
(signature) (time)

Levi Roberts 052709
(printed name) (date)

KIT Analytical
Company-

COMMENTS:

TURN AROUND TIME
 STANDARD 24Hr 48Hr 72Hr

OTHER:

Aqua Science Engineers, Inc.
 208 W. El Pintado Road
 Danville, CA 94526
 (925) 820-9391
 FAX (925) 837-4853

Chain of Custody

68653

SAMPLER (SIGNATURE)

Robert E. Kitz

PROJECT NAME Lim

PAGE 3 of 3

ADDRESS 250 8th Street, Oakland, CA

JOB NO. 2808

ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	QUANTITY	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-DIESEL (EPA 3510/8015)	TPH-DIESEL & MOTOR OIL (EPA 3510/8015)	CAM 17 METALS (EPA 6010+7000)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	Pb (TOTAL or DISSOLVED) (EPA 6010)	PESTICIDES (EPA 8081)	FUEL OXYGENATES (EPA 8260)	PURGEABLE HALOCARBONS (EPA 601/8010)	TPH-G/BTEX/5 OXYS (EPA METHOD 8260)	MULTI-RANGE HYDROCARBONS WITH SILICA GEL CLEANUP (EPA 8015)	VOLATILE ORGANICS (EPA 624/8240/8260)	LUFT METALS (5) (EPA 6010+7000)	COMPOSITE 4:1	EDF	HOLD	
																					TPH-DIESEL (EPA 3510/8015)
EW-5 20.0'	5-21-09	1104	S	1		X								X							
EW-5 30.0'	↓	1135	S	1																	X

23
24

RELINQUISHED BY:
Robert E. Kitz
 (signature) (time)
Robert E. Kitz
 (printed name) (date)
 Company-ASE, INC.

RECEIVED BY:

 (signature) (time)

 (printed name) (date)
 Company-

RELINQUISHED BY:

 (signature) (time)

 (printed name) (date)
 Company-

RECEIVED BY LABORATORY:
Levi Roberts
 (signature) (time)
 1245
 Levi Roberts 052709
 (printed name) (date)
 K. F. Analytical
 Company-

COMMENTS:

 TURN AROUND TIME
 STANDARD 24Hr 48Hr 72Hr
 OTHER:



Aqua Science Engineers, Inc. 55 Oak Court, Suite 220, Danville, CA 94526
(925) 820-9391 - Fax (925) 837-4853 - www.aquascienceengineers.com

APPENDIX E

SURVEY RESULTS FROM MID COAST ENGINEERS

LIM PROPERTY
250 8th Street
Oakland, California

Aqua Science Engineers Project

Project : 01238X2

User name MCE Date & Time 10:30:35 AM 11/9/2009
Coordinate System US State Plane 1983 Zone California Zone 3 0403
Project Datum NAD 1983 (Conus)
Vertical Datum NGVD 29
Coordinate Units US survey feet
Distance Units US survey feet
Elevation Units US survey feet

Point Number	Northing	Easting	Elevation	Description
164	2118107.25	6050492.496	30.53	EW-1toc
165	2118107.62	6050492.443	30.75	EW-1tob
162	2118079.45	6050487.222	29.60	EW-2toc
163	2118079.81	6050487.233	29.93	EW-2tob
166	2118089.33	6050464.024	29.80	EW-3toc
167	2118089.70	6050463.992	30.03	EW-3tob
168	2118106.33	6050437.209	29.63	EW-4toc
169	2118106.69	6050437.083	30.00	EW-4tob
170	2118118.24	6050461.872	30.20	EW-5toc
171	2118118.69	6050461.838	30.49	EW-5tob
156	2118036.20	6050422.994	28.78	MW-4Rtoc
157	2118036.53	6050422.934	29.03	MW-4Rtob

	A	B	C	D	E	F	G	H	I	J	K	L
1	LIM PROPERTY											
2	250 8th Street											
3	Oakland, California											
4												
5	Aqua Science Engineers Project											
6												
7	Project : 01238X2											
8	User name MCE Date & Time 10:30:35 AM 11/9/2009											
9	Coordinate System US State Plane 1983 Zone California Zone 3 0403											
10	Project Datum NAD 1983 (Conus)											
11	Vertical Datum NGVD 29											
12	Coordinate Units US survey feet											
13	Distance Units US survey feet											
14	Elevation Units US survey feet											
15												
16		EW-1	MW	11/05/2009	37.7986681	-122.2693068	CGPS	NAD83	1	Mid Coast Engineers	T57	top of casing
17		EW-2	MW	11/05/2009	37.7985915	-122.2693232	CGPS	NAD83	1	Mid Coast Engineers	T57	top of casing
18		EW-3	MW	11/05/2009	37.7986174	-122.2694041	CGPS	NAD83	1	Mid Coast Engineers	T57	top of casing
19		EW-4	MW	11/05/2009	37.7986627	-122.2694980	CGPS	NAD83	1	Mid Coast Engineers	T57	top of casing
20		EW-5	MW	11/05/2009	37.7986967	-122.2694135	CGPS	NAD83	1	Mid Coast Engineers	T57	top of casing
21												
22		MW-4R	MW	11/05/2009	37.7984694	-122.2695426	CGPS	NAD83	1	Mid Coast Engineers	T57	top of casing