

ENVIRONMENTAL & ENGINEERING SERVICES

www.aeiconsultants.com

RECEIVED

10:47 am, Mar 06, 2009

Alameda County

Environmental Health

February 28, 2009

Attn. Mr. Jerry Wickham Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Subject:

Quarterly Site Monitoring Report (Fourth Quarter, 2008)

245 8th Street Oakland, California 94607 Project No. 116907 ACHCSA RO#0000202

Dear Mr. Wickham:

Enclosed is a copy of the recently completed "Quarterly Site Monitoring Report (Fourth Quarter, 2008)" prepared for the subject property.

As required, an electronic version of this report has been uploaded to the State Water Resources Control Board's GeoTracker information system and the Alameda County Health Care Services Agency's ftp site.

Should you have any questions or comments, or need any additional information, you may reach me at (925) 746-6000, ext. 148.

Sincerely,

AEI Consultants

Richard J. Bradford

Project Engineer

RB/

Enclosure

cc: Mr. Victor Lum, Vic's Automotive, 245 8th Street, Oakland, California 94607

QUATERLY SITE MONITORING REPORT (FOURTH QUARTER, 2008)

245 8th Street Oakland, California

AEI Project No. 116907 ACHCSA RO#00000202

Prepared For:

Vic's Automotive 245 8th Street Oakland, California 94607

Prepared By:

AEI Consultants

2500 Camino Diablo, Suite 200 Walnut Creek, California 94597 (925) 944-2899



TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	SITE DESCRIPTION & BACKGROUND	1
3.0	GEOLOGY AND HYDROGEOLOGY	4
4.0	HVDPE TECHNOLOGY AND PROCESS DESCRIPTION	4
	Technology Overview	
5.0	SUMMARY OF MONITORING ACTIVITIES	6
	Quarterly Groundwater Monitoring	7 7 8 8 9 9
6.0	RESULTS & CONCLUSIONS	10
6.2	Apparent LNAPL Thickness, Groundwater Elevations, and Hydraulic Gradient Groundwater Sample Analytical Data	111212131313
7.0	SUMMARY & PLANNED ACTIVITIES	15
8.0	REFERENCES	17
9.0	REPORT LIMITATIONS AND SIGNATURES	18

FIGURES

FIGURE 1	SITE LOCATION MAP
FIGURE 2	SITE PLAN
FIGURE 3	SYSTEM LAYOUT PLAN
FIGURE 4	Groundwater Elevation Data (11/07/08)
FIGURE 5	GROUNDWATER SAMPLE ANALYTICAL DATA (11/07/08)
FIGURE 6	SOIL GAS SAMPLE ANALYTICAL DATA (11/07/08)
FIGURE 7	EXTRACTION WELL INFLUENT CONCENTRATIONS OVER TIME
FIGURE 8	COMBINED TPH-G INFLUENT CONCENTRATIONS OVER TIME
FIGURE 9	HYDROCARBON MASS REMOVAL RATES BASED ON LAB DATA
FIGURE 10	CUMULATIVE HYDROCARBON MASS REMOVED BASED ON LAB DATA

TABLES

TABLE 1	GROUNDWATER ELEVATION DATA
TABLE 2	GROUNDWATER FLOW SUMMARY
TABLE 3	GROUNDWATER SAMPLE ANALYTICAL DATA
TABLE 4	SOIL GAS SAMPLE ANALYTICAL DATA
TABLE 5	HVDPE VAPOR INLET SAMPLE ANALYTICAL & FIELD SCREENING DATA SUMMARY
TABLE 6	GROUNDWATER TREATMENT SYSTEM SAMPLE ANALYTICAL DATA
TABLE 7	SOIL GAS FIELD DATA SCREENING SUMMARY (TVH, CH4, O2, CO2)
TABLE 8	WELLHEAD VACUUM & DROP TUBE DEPTH DATA SUMMARY
TABLE 9	HVDPE PERFORMANCE & MASS REMOVAL DATA SUMMARY
TABLE 10	THERMAL/CATALYTIC OXIDIZER PERFORMANCE & MASS REMOVAL DATA SUMMARY
TABLE 11	AIR STRIPPER PERFORMANCE & MASS REMOVAL DATA SUMMARY
TABLE 12	ACTIVATED CARBON ABSORBER PERFORMANCE & MASS REMOVAL DATA SUMMARY
TABLE 13	HVDPE Process Monitoring Schedule

APPENDICES

APPENDIX A	Monitoring Well Field Sampling Forms
APPENDIX B	SOIL GAS FIELD SAMPLING FORMS
APPENDIX C	LABORATORY ANALYTICAL REPORTS
APPENDIX D	REGULATORY CORRESPONDENCE CONCERNING THE HVDPE PIPING LATERALS
APPENDIX E	PICTURES OF THE HVDPE PIPING LATERALS INSTALLATION @ 708 ALICE STREET

1.0 INTRODUCTION

AEI Consultants (AEI) has prepared this report on behalf of Mr. Victor Lum, owner and operator of Vic's Auto automotive repair and fuel service station located at 245 8th Street in the City of Oakland, Alameda County, California (Figure 1). AEI has been retained by Mr. Lum to provide environmental engineering and consulting services related to the release of gasoline fuel hydrocarbons from the former underground storage tank (UST) and dispensing system on the property. The ongoing investigation and mitigation of the release is being performed under the direction of the Alameda County Health Care Services Agency (ACHCSA). This report has been prepared to document the field activities and results of groundwater and soil gas monitoring for the Fourth Quarter, 2008 as well as the high vacuum dual phase extraction (HVDPE) system processing monitoring and operations and maintenance (O&M) activities for the months of October, November, and December of 2008.

The HVDPE system was installed and started up in June of 2007. The main purposes for installing and operating a HVDPE system onsite as interim corrective action include:

- Hydrocarbon mass removal by performing continuous HVDPE using existing monitoring/extraction wells for the removal, recovery, and treatment of light non-aqueous phase liquid (LNAPL), soil gas, and groundwater from the vadose zone, capillary fringe, and shallow saturated zone in accordance with state and local air and water quality permit requirements.
- Performing continuous HVDPE at the source and along the southwestern property boundary to the mitigate the potential for vapor intrusion into nearby residences situated above and in close proximity to the LNAPL and groundwater plumes by maintaining a low negative pressure (i.e., high vacuum) in the subsurface relative to the building foundations.

2.0 SITE DESCRIPTION & BACKGROUND

The subject property (hereafter referred to as the "site" or "property") is located in a mixed commercial and residential area of Oakland. The site is a lot on the south corner of Alice Street and 8th Street, and is currently developed with a gasoline service station and automotive repair facility (Figure 2). The property covers approximately 9,375 square feet and is improved with an approximately 1,200 square foot building located centrally on the property with two bays used for automotive repair, two restrooms, and a cashier's office. The current UST hold and the dispenser island are located to the north of the building, along 8th Street. The former UST hold was located to the south of the building, along Alice Street. The remainder of the property is paved with asphalt and used for parking and staging vehicles for repairs.

• Between June of 1993 and August of 1994, AEI removed seven (7) underground storage tanks (USTs) from the property. The tanks consisted of four (4) 1,000-gallon gasoline tanks located in the sidewalk along Alice Street, two (2) 6,000-gallon gasoline tanks and one (1) 250-gallon waste oil tank. Impacted soil was removed from beneath the former tank area. Groundwater was encountered beneath the former 6,000-gallon tanks. Light non-aqueous

phase liquid (LNAPL) was observed on the water table beneath the southern tank. The excavated soil was transported to an appropriate disposal facility and the excavation was backfilled with clean fill material. A new tank system was installed just west of the dispenser island.

- In July of 1995, two (2) groundwater monitoring wells (MW-1 and MW-2) were installed onsite. Total petroleum hydrocarbons as gasoline (TPH-g) and benzene were detected in MW-2 at concentrations up to 210,000 μg/L and 720 μg/L, respectively during the first two monitoring episodes. Light non-aqueous phase liquid (LNAPL) or free phase gasoline was discovered in MW-1. The apparent LNAPL thickness in MW-1 ranged from 1.20 to 4.39 feet between December 1995 and March 1996.
- In August of 1996, AEI advanced three (3) soil borings (i.e., SB-1 through SB-3) onsite. TPH-g and benzene were detected in the groundwater samples from these borings at concentrations ranging from 120,000 to 140,000 μg/L, and from 12,000 to 19,000 μg/L, respectively. Methyl tertiary-butyl ether (MTBE) was also detected in all three samples at concentrations up to 27,000 μg/L. Although free phase product was not observed in the field, qualitative laboratory observations indicated an immiscible sheen was present in the samples.
- Manual bailing and pumping of LNAPL from MW-1 occurred intermittently from 1997 to 1998.
- In May of 2001, two (2) additional groundwater monitoring wells (MW-3 and MW-4) were installed onsite. In June of 2001, a free product recovery system was installed in MW-1. The free product recovery system removed several hundred gallons of LNAPL between 2001 and 2003.
- In April of 2003, AEI advanced twelve (12) additional soil borings (SB-4 to SB-15) onsite and offsite for the collection of soil, shallow groundwater, and soil vapor samples to further characterize the magnitude and lateral extent of the release.
- In January of 2005, AEI installed six (6) additional monitoring/extraction wells (MW-5, MW-6 and MW-7 were installed onsite and wells MW-10 to MW-12 were installed offsite at the 708 Alice Street property). Wells MW-8 and MW-9 were proposed for installation in the parking lane along 7th and Alice Streets; however, due to difficult insurance wording requirements imposed by the City of Oakland, these wells were not installed until March of 2008.
- From July 11 to July 27, 2005, a 16-day HVDPE pilot test was performed on wells MW-1, MW-2, MW-5, MW-6, and MW-7. Combined vapor influent flow rates ranged from approximately 170 to 190 standard cubic feet per minute (scfm) under a sustained vacuum of 16 to 17 inches of mercury (in-Hg). The average water flow rate was approximately 4.1 gallons per minute (gpm). A total of 80,740 gallons of groundwater was recovered, treated, and discharged to the sanitary sewer under a short-term, limited volume groundwater

discharge permit from the East Bay Municipal Utilities District (EBMUD). Significant drawdown and pressure (i.e., vacuum) response was observed in the vadose and saturated zone monitoring points. Approximately 5 pounds per day (lbs/day) of dissolved phase and 697 lbs/day of vapor phase hydrocarbons were recovered during the test. A total of 10,719 pounds or 1,716 gallons of gasoline was removed during this test. Based on the encouraging results of this pilot test, AEI recommended interim corrective action using HVDPE for 12 to 18 months using fixed equipment. Please refer to AEI's "HVDPE Event Report", dated December 14, 2005, for more information.

- In March of 2006, the ACHSA concurred with the implementation of HVDPE using fixed equipment and requested a system design, operations and maintenance, and monitoring plan. In this letter, the ACHSA also requested soil vapor sampling to evaluate the potential for vapor intrusion due to the elevated concentrations of fuel hydrocarbons detected in the soil and groundwater onsite and offsite.
- In May of 2006, a HVDPE system design, operations and maintenance, and monitoring plan and a separate soil gas investigation work plan were submitted to ACHSA for review and comment. Please refer to AEI's "High Vacuum Dual Phase Extraction System Design, Operations, and Maintenance Plan," dated May 24, 2006 and "Soil Gas Investigation Work Plan", dated May 12, 2006, for more information.
- In November of 2006, trenching and installation of the conveyance piping for HVDPE system was conducted. The system completion and delivery was scheduled for 1st Quarter 2007; however, the system was delivered in April 2007. The remaining infrastructure, such as the rotary phase converter, equipment, fence, and wellhead connections were installed in May of 2007 and the system was started up on June 26, 2007.
- On June 11, 2007, two (2) 55-gallon drums, or approximately 100 gallons of water containing about 50% LNAPL, was removed from MW-1 and MW-6 by operating the HVDPE system in product skimming mode.
- In November of 2007, additional HVDPE conveyance piping was installed above grade behind the onsite building to the rear of the property and the system was expanded to include monitoring/extraction wells MW-10, MW-11, and MW-12.
- In March of 2008, wells (MW-8, MW-9 and MW-13) were installed. Elevated concentrations of TPH-g, BTEX, and MTBE were detected in samples collected from MW-9. Low to none-detectable concentrations of TPH-g, BTEX, and MTBE were detected in MW-8 and MW-13. Elevated concentrations of MTBE were detected in MW-13.
- Between August 21 and 22, 2008, soil gas probes GP-3 and GP-4 was decommissioned by physical removal and three (3) horizontal HVDPE conveyance piping laterals were installed to MW-10, 11, and 12 so that these wells could continue to be used for dual phase extraction while the property was being developed.

3.0 GEOLOGY AND HYDROGEOLOGY

The elevation of the site is approximately 27 to 29 feet above mean sea level (amsl). The site is flat; however, the topography of the area slopes gently to the southwest. The site is located between Lake Merritt and the Oakland Inner Harbor channel, approximately one-half mile from each. The near surface sediments are mapped as Holocene and Pleistocene Merritt Sand (Qms), which are further described as "fine-grained, well-sorted, well-drained, Aeolian sand deposits" (Helley and Graymer, 1997 and Graymer, 2000). Depth to the Franciscan Formation basement underlying the unconsolidated deposits is approximately 400 feet (Norfleet Consultants, 1998).

Based on the logs of soil borings advanced on and offsite, the native soils generally consist of fine to medium grained sands with silt and clay present to at least 28 feet bgs, the deepest explored at the site. Typically, silty and clayey fine grained sand have been encountered to depths of 15 to 18 feet bgs. This is underlain by poorly graded, clean to slightly clayey and silty fine to medium sand. Both sand bodies represent a single hydro-geologic system. Sediments have been relatively uniform throughout the investigation area.

Groundwater depths have typically ranged from 13 to 17 feet bgs, corresponding to elevation of approximately 10 to 14 feet above mean sea level (msl). Annual groundwater levels fluctuate by approximately 3 to 4 feet. Groundwater has consistently flowed to the south, southeast, or southwest with a hydraulic gradient of approximately 0.010 ft/ft. Recent water levels have been affected by the groundwater extraction activities.

4.0 HVDPE TECHNOLOGY AND PROCESS DESCRIPTION

4.1 Technology Overview

HVDPE is a proven and effective technology for a wide range of soil types and subsurface conditions. HVDPE is often also referred to as dual phase extraction (DPE), multi-phase extraction (MPE), two-phase extraction (TPE), and sometimes "bioslurping". There are several variations of this technology, but a great majority of HVDPE systems use a water-sealed liquid-ring vacuum pump to simultaneously extract and recover LNAPL, groundwater, and soil gas through a single 1-inch diameter adjustable drop tube (also called a "stinger") sealed within a 2 to 4-inch diameter extraction well. The application of high vacuum enhances soil vapor extraction (SVE) by lowering the water table and creating dewatered zones and exposing previously saturated soils to airflow. The airflow through the subsurface supplies oxygen needed to enhance in-situ aerobic biodegradation of fuel hydrocarbons, which is analogous to bioventing technology.

4.2 Site, System, & Process Description

Light non-aqueous phase liquid (LNAPL), soil gas and groundwater are simultaneously extracted through a single 1-inch diameter drop tube currently installed in eight (8) monitoring/extracting wells (MW-1, MW-2, MW-5 to MW-7, and MW-10 to MW-12) using two (2) 15 horsepower water-sealed liquid ring pumps piped in parallel. These pumps can generate flows up to 140 cubic

feet per minute (cfm) each (i.e., 280 cfm combined capacity) and high vacuums of up to 28 in-Hg, but normally operate in the range of 18 to 22 in-Hg.

The monitoring wellheads were modified for dual phase extraction by installing a 1-inch PVC ambient bleed air valve, two-hole cast iron wellhead pump seal, stinger and casing vacuum gauges, and 1-inch clear, flexible PVC stinger. The manifold and conveyance piping leading up to the manifold were constructed out of schedule 80 PVC. Recovered LNAPL, soil gas, and groundwater are separated by a knock-out tank. Because the LNAPL and other gasoline fuel hydrocarbons dissolved in the groundwater are volatilized under high vacuum (i.e., >20 in-Hg), an oil-water separator is not used. A progressive cavity pump transfers the groundwater from the knock-out tank to the top of the low-profile air stripping unit. Groundwater trickles-down through small holes in the air stripper trays, where nearly 99% of the remaining volatile fuel hydrocarbons are stripped from the groundwater. Groundwater is pumped from the air stripper reservoir to a single 1,000-pound activated carbon absorber, where its further treated and polished and then discharged to the onsite sanitary sewer under a wastewater discharge permit from the East Bay Municipal Utilities District (EBMUD).

The soil gas and off-gas from the air stripping unit is routed to a thermal/catalytic oxidizer operating in catalytic mode for direct thermal destruction. The catalytic oxidizer operates at 700 °F with a minimum destruction efficiency of 99% as required by permit. The treated off-gas is discharge through a stack located 15 feet above grade under a Bay Area Air Quality Management District (BAAQMD) air quality permit.

A Dwyer[®] Instruments (Model No. DS-300) averaging pitot tube combined with a dual-scale Magnehelic[®] differential pressure gauge is used to measure the well velocity and total velocity. The well velocity and total velocity are multiplied by the cross sectional area of the pipe (i.e., 0.0491 ft^2 for a 3-inch pipe) to obtain the actual flow rate. The difference between the well flow rate and total flow rate is the air stripper flow rate. All flow rates are corrected to standard temperature and pressure (i.e., 70°F and 1 atm or 29.92 in-Hg) using formulas provided by Dwyer[®]. The groundwater recovery volume is measured with a Neptune (Model T-10) cold water flow totalizer and recorded along with the equipment hour meter reading during each O&M visit. The flow totalizer and hour meter readings are used to estimate the average daily flow rate between sampling dates.

The field point names for the vapor influent sample ports are the monitoring well identification followed by the letter "S" (i.e., MW-1S, MW-2S, MW-5S, MW-6S, MW-7S and MW-10S to MW-12S). These sample ports are labeled and located along a common a common manifold inside the fenced equipment enclosure. Control valves are installed on each line to regulate the vacuum and flow. Clear sections of pipe are also installed on each line to observe the flow patterns and process streams.

The field point names for the vapor influent samples ports before dilution air, after dilution air, and from the air stripping unit and the stack gas effluent sample port are: PRED, POST, AS, and STACK.

The field point names for the water influent sample ports for the combined influent, after the air stripper, after the first carbon absorber, and after the last carbon absorber at the effluent: INF, POST-AS, POST-C1, and EFF.

The four (4) nested soil gas probes used for collecting soil gas samples and vacuum measurements are as follows: SG-1-5', SG-10', SG-2-5', SG-2-10', SG-3-5', SG-3-10', to SG-4-5' and SG-1-10'.

The location of the sample ports for the extraction wells are shown on Figure 3. The soil gas probe locations are shown on Figure 2.

5.0 SUMMARY OF MONITORING ACTIVITIES

5.1 Quarterly Groundwater Monitoring

The HVDPE system was not shutdown prior to this groundwater monitoring event. On November 7, 2008, the water levels were measured and groundwater samples were collected from all of the monitoring / dual-phase extraction wells, except for MW-10 through MW-12. Measuring the depth to water and sampling these wells is no longer feasible because the wellheads were removed and the wells were buried beneath a new residential construction in August of 2008. The well locations are shown in Figure 2.

The well caps and stingers, where applicable, were removed and depths from the top of the well casings were measured with an electronic water level indicator prior to sampling. Wells with no measurable free product were purged of at least three well volumes of water with a submersible purge pump and sampled using disposable polyethylene bailers.

Temperature, pH, specific conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were measured while purging the wells and the turbidity was visually noted. Once temperature, pH, specific conductivity stabilized after three consecutive readings, and following the recovery of water levels to at least 90% of the static level, a water sample was collected.

The groundwater samples were collected with disposable clear PVC bailers into 40-millileter (mL) volatile organic analysis (VOA) vials and capped so that no head space or air bubbles were present within the sample containers. Samples were preserved on ice and transported under proper chain of custody protocol to McCampbell Analytical, Inc. of Pittsburg, California (DHS Certification #1644). A total of ten (10) groundwater samples were submitted for chemical analysis for TPH-g by EPA Method SW8015C and MBTEX by EPA Method SW8021B. In addition, due to the elevated detection limit for MTBE by EPA Method SW8021B, the samples collected from MW-6 and MW-9 were tested for MTBE only by EPA Method SW8260B.

5.2 Quarterly Soil Gas Monitoring for Vapor Intrusion Evaluation

Per concurrence from the ACHCSA in a letter dated October 3, 2008, quarterly soil gas sampling has been temporarily suspended during the operation of the HVDPE system.

5.2.1 Routine Monitoring and Data Collection

An AEI project engineer monitored the system using the remote monitoring system via email daily from the office. The system was also monitored and checked by a senior field technician weekly to biweekly and as needed to respond to system shutdowns. A Daily Field Report and O&M Field Logs were filled out during each site visit. Routine O&M visits ranged from approximately 2 to 4 hours per visit, depending upon the activities performed.

The following data was recorded on the Daily Field Report and/or O&M Field Log during each site visit:

- <u>HVDPE System</u>: current hour meter reading, PG&E meter reading (kilowatt-hours), system runtime (hours), system inlet vacuum (in-Hg), vacuum at the inlets of both liquid ring pumps (in-Hg), well velocity (fpm) and calculated well flow rate (cfm) by multiplying the well velocity by the cross-sectional area (ft^2) of a 3-inch pipe, control valve initial and final positioning (% open), and cooling fan(s) status (on/off).
- <u>HVDPE Wells:</u> the stinger vacuum (in-Hg), casing vacuum (in-Hg), and drop tube depth (ft toc) data were collected monthly or as needed.
- <u>Thermal/Catalytic Oxidizer</u>: propane level (%), preheat controller temperature (°F), exhaust controller temperature (°F), total velocity (fpm) and calculated total flow rate (cfm) by multiplying the total velocity and by the cross-sectional area (ft^2) of a 3-inch pipe.
- <u>Air Stripper</u>: variable frequency drive setting (Hz), outlet velocity (fpm) and calculated outlet flow rate (cfm) by subtracting the well flow rate from the total flow rate, air stripper tray backpressure (in-H2O), control valve positioning (% open).
- <u>Activated Carbon Absorbers</u>: inlet pressure (psig), outlet pressure (psig), flow totalizer reading (gallons), and whether or not the bag filter was change and/or carbon absorber backwashed.

5.2.2 Influent & Effluent Vapor Monitoring

Influent and effluent vapor samples were collected on November 4, 2008 and December 2, 2008. Vapor samples were not collected during the month of October because the system was shutdown for rebound testing. The extraction well and other process sample ports were continuously purged and sampled with a Gast[®] (Model DOA-P707-FB) 1/3 horsepower diaphragm vacuum pressure

pump, capable of up to 1.1 cfm free airflow and vacuums up to 25.5 in-Hg, using the "side-stream" purging and sampling method as described in Downey, et al., 2004 and Hinchee, et al., 1996. A 2-liter water separator device was used to collect vapor samples from the dual-phase air-water influent process stream.

TVH, CH4, O2, and CO2 concentrations were continuously monitored with an RKI Instruments Eagle (Type 474-04) multi-gas detector using a sampling tee placed several feet downstream of the pump outlet. The hydrocarbon detector, which is a catalytic bead sensor, was calibrated with a 40% LEL (i.e., 4,400 ppmv) hexane gas standard. The methane, oxygen, and carbon dioxide detectors were also calibrated with the appropriate gas standards. Once the readings stabilized, they were recorded on the field data sheets and a vapor sample was collected into 1-liter Tedlar bag using the same sampling tee.

The Tedlar bags were stored in a cardboard box and transported under proper chain of custody protocol to McCampbell Analytical, Inc. of Pittsburg, California (DHS Certification No. 1644) on the day of collection. The samples were analyzed for TPH-g by EPA Method 8015C and MBTEX by EPA Method 8021B.

5.2.3 Influent & Effluent Water Monitoring

Influent and effluent water samples were collected on November 4, 2008 and December 2, 2008. Process water samples were not collected during the month of October because the system was shutdown for rebound testing. The process water sample ports were purge of approximately 1-Liter of water prior to sample collection. Water was collected into three (3) 40-millileter (mL) volatile organic analysis (VOA) vials, or as required by the analysis, and capped so that no head space or air bubbles were present within the sample containers.

The water samples were placed in a pre-chilled cooler on a mixture of water and ice and transported under proper chain of custody protocol to McCampbell Analytical, Inc. of Pittsburg, California (DHS Certification #1644) on the day of collection. The samples were analyzed for TPH-g by EPA Method SW8015C and MBTEX by EPA Method SW8021B.

5.2.4 Soil Gas Composition & Vacuum Influence Monitoring

Soil gas probes (GP-1 and GP-2) were screened in the field for TVH, CH4, O2, and CO2 and vacuum influence was measured on November 11, 2008.

The vacuum influence was measured with a set of Magnehelic differential pressure gauges and recorded first. A 3/16-inch inside diameter clear vinyl or equivalent tubing was used to connect the Magnehelic[®] gage to the plug valve and soil gas probe. The following pressure ranges in inches of water were normally available: 0-0.2", 0-1", 0-5", 0-10", 0-20", 0-50", 0-100", and 0-150".

Then the soil gas probes were continuously purged and sampled with a Geotech (Model Geopump II) peristaltic pump, capable of vacuums up to 25 in-Hg, using the "side-stream" purging and sampling method as described in Downey, et al., 2004 and Hinchee, et al., 1996.

TVH, CH4, O2, and CO2 concentrations were continuously monitored with an RKI Instruments Eagle (Type 474-04) multi-gas detector using a sampling tee placed several feet downstream of the pump outlet. The hydrocarbon detector, which is a catalytic bead sensor, was calibrated with a 40% LEL (i.e., 4,400 ppmv) hexane gas standard. The methane, oxygen, and carbon dioxide detectors were also calibrated with the appropriate gas standards. Once the readings stabilized, they were recorded on the field data sheets. Vapor samples were not collected into 1-liter tedlar bags for laboratory analysis.

5.3 HVDPE System Operations & Maintenance

5.3.1 Routine Maintenance

Routine maintenance performed during this quarter included:

- Performed visual inspections of all major system components, including checking for signs of leaks, physical wear, and/or damage during each site visit.
- Checked the cooling blower filter, dilution air inlet filter, and air stripper blower filter. No filter changes were required during this quarter. However, filter changes will likely be required during the next quarter.
- The PV-1000 (1,000-pound) liquid-phase carbon absorber was not backwashed during this quarter.
- No other routine maintenance was performed during this quarter.

5.3.2 Non-Routine Maintenance

Non-routine maintenance performed during this quarter included:

- On October 4, 2008, a water overflow / makeup valve was installed on Liquid Ring Pump #2 (LRP #2) and a ½-inch water supply line was installed from the air stripper reservoir to the overflow / makeup valve. The overflow / makeup valve provides additional seal water for the liquid ring pump when LRP #2 operates at a vacuum less than approximately 18 in-Hg.
- On October 6, 2008, the installation and operation of the overflow / makeup valve was checked and tested. During this visit a loud "whining" noise was heard coming from LRP. The 3/8-inch diameter line for the anti-aviation valve had come loose and was re-secured.

- On November 4, 2008, the threads of the vacuum gauges for MW-10S, 11S, and 12S were resealed with Teflon tape.
- On November 7, 2008, the heat exchanger on LRP #2 was cleaned with compressed air. The ultimate vacuum was measured before and after the cleaning. Cleaning the water cooler fins raised the ultimate vacuum from approximately 20 to 24 in-Hg.
- On November 17, 2008, a cracked PVC flange and bushing at the inlet to LRP #2 was repaired and replaced. A new flange gasket was installed and the ultimate vacuum increased from approximately 24 to 28 in-Hg.
- On December 2, 2008, a larger wall louver was installed to replace a smaller one and provide additional cooling for the LRP #2. The heat exchanger on LRP #2 was also cleaned with compressed air.
- On December 15, 2008, the HVDPE system shutdown due to a low gas pressure and/or flame monitoring system alarms because the main shutoff valve on the propane tank was inadvertently closed after a routine propane delivery. On December 22, 2008, the valve was re-opened and the system restarted.
- No other none-routine maintenance was performed during this quarter.

5.3.3 System Modifications

System modifications completed during this quarter included:

- As described above, a water overflow / makeup valve was installed on LRP #2.
- No other major system modifications were performed during this quarter.

6.0 RESULTS & CONCLUSIONS

6.1 Apparent LNAPL Thickness, Groundwater Elevations, and Hydraulic Gradient

The results of the apparent LNAPL thickness measurements, groundwater elevations, and hydraulic gradient for this monitoring episode are summarized below:

- LNAPL was not encountered, nor was a hydrocarbon sheen noted, in any of the monitoring wells, although elevated concentrations of dissolved hydrocarbons, such as TPH-g, BTEX, and MTBE, remain onsite and offsite.
- Not including the recently installed wells MW-8, MW-9, and MW-13, groundwater elevations ranged from approximately 14.00 (MW-4) to 15.49 (MW-6) feet above mean sea

level (msl). The elevations of MW-8, MW-9, and MW-13 relative to msl have not been surveyed pending the installation of two (2) additional monitoring wells (MW-15 and MW-16) in a parking lane along the southeastern side of 7th Street and installation of one (1) monitoring well (MW-14) along Alice Street.

- The groundwater elevations have been influenced by the HVDPE groundwater extraction activities. Therefore, groundwater elevation contours have not been included on Figure 4.
- The normal historical groundwater flow direction has been predominantly to the south with a hydraulic gradient of approximately 0.010 ft/ft.

The historic and current groundwater elevation data is summarized in Table 1 with the current data shown on Figure 4. A summary of the current and historic average groundwater elevations and flow directions are presented in Table 2.

6.2 Groundwater Sample Analytical Data

The analytical results for the groundwater sample collected for this monitoring episode are summarized below:

- The highest concentrations of TPH-g were detected in MW-6 and MW-9 at 54,000 and 53,000 µg/L, respectively.
- The highest concentration of benzene was detected in MW-9 at 13,000 μg/L. The next highest concentrations of benzene were detected in MW-1, MW-6, and MW-7 at 460, 610, and 580 μg/L, respectively.
- The highest concentration of MTBE was detected in MW-9 at 400 μg/L. The second highest concentration was detected in MW-13 at 380 μg/L, which is an order of magnitude lower than the previous two monitoring events.
- Elevated concentrations of TPH-g were detected in source area wells MW-1, MW-5, and MW-7 at 15,000, 5,000, and 4,200 µg/L, respectively.
- Lower, but significant concentrations of TPH-g was detected in MW-2 and MW-8 at 680 and 430 µg/L, respectively.
- Very low to almost none-detectable levels of TPH-g, BTEX, and MTBE were detected in MW-3 and MW-4. Very low to almost none-detectable levels of TPH-g and BTEX were detected in MW-13.
- LNAPL of any apparent measurable thickness has not been detected in MW-1, MW-6, and MW-7 since May of 2007.

- Dissolved hydrocarbons have been significantly reduced (by at least one order of magnitude) onsite and offsite by operating the HVDPE system.
- It is unknown at this time if the elevated concentrations of TPH-g and BTEX in MW-9 will be reduced by operating the HVDPE system.

A summary of the current and historic groundwater analytical data is summarized in Table 3 with current data shown on Figure 5. Refer to Appendix A for the monitoring well field sampling forms. The laboratory analytical report with chain of custody and quality assurance/quality control documentation is included in Appendix C.

6.3 HVDPE System Process Monitoring

6.3.1 Influent & Effluent Vapor Sample Analytical Data

The analytical results of the monthly influent and effluent vapor samples are summarized below:

- On November 4, 2008, the highest concentrations of TPH-g were detected in MW-1S, MW-2S, MW-5S, MW-7S, and MW-10S. Likewise, the highest concentrations of benzene were also detected in MW-1S at 63 ppmv, MW-2S at 78 ppmv, MW-5S at 30 ppmv, MW-7S at 53 ppmv, and MW-10S at 36 ppmv. The highest levels of CO2 were also detected in these wells at concentrations ranging from 2.3% in MW-5S to 3.5% in MW-7S.
- On December 2, 2008, the highest concentrations of TPH-g were detected in MW-1S, MW-2S, MW-7S, and MW-10S. Likewise, the highest concentrations of benzene were also detected in MW-1S at 57 ppmv, MW-2S at 66 ppmv, MW-7S at 44 ppmv, and MW-10S at 26 ppmv.
- The pre-dilution (PRED) influent concentrations of TPH-g ranged from 2,200 to 2,700 ppmv.
- The air stripping system effluent concentrations of TPH-g ranged from 10 to 41 ppmv.
- Sampling the post-dilution (POSTD) process sample port was discontinued during Third Quarter, 2008 because it does not provide any additional useful information above of beyond what data has already been collected.
- TPH-g, BTEX, and MTBE were not detected in the STACK sample at or above the laboratory reporting limit of 7 ppmv, except for a trace amount (52 ppmv) on December 2, 2008.

A summary of the historic and current vapor influent and effluent sample analytical and field screening data is presented in Table 5. The laboratory analytical report with chain of custody and quality assurance/quality control documentation is included in Appendix C.

6.3.2 Influent & Effluent Water Sample Analytical Data

The results of the monthly influent and effluent water samples are summarized below:

- The concentrations of TPH-g and benzene detected in the combined water influent (i.e., Sample ID "INF") ranged from 8,300 to 9,400 μg/L and 140 to 320 μg/L, respectively.
- TPH-g and benzene were not detected in the water effluent from the air stripper (i.e., Sample ID "POST-AS").
- The average air stripper removal efficiency during this quarter was approximately 99.7%.
- TPH-g and BTEX were not detected in the effluent (i.e., Sample ID "EFF") at or above the laboratory reporting limits.

A summary of the historic and current water influent/effluent sample analytical data is presented in Table 6. The laboratory analytical report with chain of custody and quality assurance/quality control documentation is included in Appendix C.

6.3.3 Influent Well Vapor and Water Flow Rates

The total well influent vapor velocity was approximately 1,200 feet per minute (fpm) and the total well influent flow rate was approximately 59 standard cubic feet per minute (scfm). Average groundwater extraction rates ranged from 3,759 to 4,305 gallons per day or approximately 2.6 to 3.0 gallons per minute (gpm). Approximately 169,300 gallons of groundwater was recovered, treated, and discharged to the sanitary sewer between September 30 and December 2, 2008. A total of 1,281,070 gallons have been recovered and treated since startup in June of 2007.

A summary of the historic and current well vapor and water flow rates is presented in Tables 9 and 12. The laboratory analytical report with chain of custody and quality assurance/quality control documentation is included in Appendix C.

6.3.4 Mass Removal Rates

Short-term and long-term vapor phase and dissolved phase mass removal rates in pounds per day (lbs/day) and gallons per day (gpd) were estimated using TPH-g concentrations based on lab data and the actual system runtime between sampling dates.

The vapor phase mass removal rates ranged from approximately 52 to 64 pounds per day (lbs/day) with an overall average of approximately 58 lbs/day during this reporting period. Approximately 2,411 pounds or 402 gallons of gasoline in the vapor phase was recovered and treated between September 30 and December 2, 2008. Approximately 25,715 pounds or 4,286 gallons of vapor phase gasoline have been removed since startup in June of 2007.

Although insignificant when compared with the vapor phase mass removal data, the dissolved phase mass removal rates ranged from approximately 0.26 to 0.34 lbs/day with an overall average of approximately 0.30 lbs/day. Approximately 12.3 pounds or 2.1 gallons of gasoline in the dissolved phase was recovered and treated between September 30 and December 2, 2008. Approximately 134 pounds or 22 gallons of dissolved phase gasoline has been removed since startup.

A summary of the historic and current vapor phase mass removal rates with assumptions, unit conversions, and sample calculations are presented in Tables 9 and 10 and shown on Figure 9. The dissolve phase mass removal rates are presented in Table 12. A cumulative vapor phase mass removal graph is shown on Figure 10.

6.3.5 Soil Gas Composition and Vacuum Influence

The results of the TVH, CH4, O2, and CO2 field screening data and vacuum influence measurements collected on November 11, 2008 are summarized below:

- Screening the soil gas probes for TVH, CH4, O2, and CO2 with the RKI Eagle gas detector and collecting vacuum influence measurements was moved from monthly to quarterly during the Third Quarter, 2008.
- Concentrations of total volatile hydrocarbons (TVH) were not detected in any of the soil gas probes at or above the detection limit of 5 ppmv.
- The concentration of O2 in all probes sampled at 5 and 10-feet bgs was nearly 20.9%.
- The concentrations of CO2 in all probes sampled was approximately 0.0%.
- Significant vacuum influence (i.e., greater than 0.1 inches of water Hinchee, R.E., et al., 1996 and others) was measured in GP-1 and GP-2 at 10-feet bgs.

A summary of the historic and current TVH, CH4, O2, and CO2 soil gas field screening data and vacuum influence measurements are presented in Table 8.

7.0 SUMMARY & PLANNED ACTIVITIES

This report presented the findings of the Fourth Quarter, 2008 groundwater monitoring event and included a discussion of the field activities and results of the HVDPE system operations and maintenance and process monitoring. Quarterly soil gas sampling for vapor intrusion has been temporarily suspended during the operation of the HVDPE system.

The main results of this monitoring period are summarized below:

- Elevated concentrations of TPH-g, BTEX, and MTBE were detected in MW-9. Very low to nearly non-detectable concentrations of TPH-g and BTEX were detected in MW-8 and MW-13. MTBE was not detected in MW-8.
- Additional monitoring wells will need to be installed on the southwest side of 7th Street to complete the lateral plume delineation.
- The results of this groundwater and soil gas monitoring event are generally consistent with
 previous episodes with a notable decrease in groundwater table elevation, which is likely a
 result of the groundwater extraction activities onsite and offsite, and seasonal lows prior to
 the start of the winter rainy season.
- LNAPL has not been detected since the HVDPE system was installed and started up in June of 2007, although elevated dissolved phase concentrations remain onsite and offsite.
- Decreases in the concentrations of dissolved phase hydrocarbons in several wells onsite and offsite (most notably MW-2, 5, 7, 10, 11, and 12) are the result of ongoing HVDPE remediation activities.
- A significant mass of volatile hydrocarbons is still being removed from the subsurface (up to 10 gallons per day). The influent vapor concentrations of hydrocarbons are within the range for catalytic oxidation, but may be still be too high for activated carbon to be a more costeffective treatment option.
- Nearly ambient concentrations of oxygen indicate the HVDPE is fully oxygenating the soils
 in the vadose zone, which can support and enhance aerobic biodegradation of hydrocarbons
 in the subsurface.

The following activities and system modifications are planned for the next quarter:

- Soil gas sampling has been temporarily suspended during the operation of the HVDPE system as approved by the ACHCSA in a letter dated October 3, 2008.
- The recently installed monitoring wells MW-8, MW-9, and MW-13 will continue to be sampled quarterly and analyzed for TPH-g by EPA Method 8015C and MBTEX by EPA Method 8021B.

- Due the elevated reporting limit for MTBE by EPA Method 8021B in certain monitoring wells, AEI recommends testing all wells with elevated reporting limits for MTBE by EPA Method 8260B during the next and subsequent groundwater monitoring events as needed.
- Continue operation of the HVPDE system, including weekly system checks and monthly O&M and process monitoring, evaluate the system performance, and conduct air and water discharge compliance sampling and reporting as required by permit.
- Continue to screen the soil gas probes for TVH, CH4, O2, and CO2 with the RKI Eagle gas detector on a quarterly rather than monthly basis. The soil gas probes will be screened according to the methods described in Downey, et al., 2004.
- Continue operation of the thermal oxidizer in catalytic mode to reduce auxiliary fuel consumption. As the influent vapor concentrations decline over the next quarter of system operation, evaluate (as applicable) if and when the system should be shutdown for rebound testing or operated on an intermittent schedule.
- Finish permitting with the City of Oakland and ACPWA for the installation of two (2) additional monitoring wells (MW-15 and MW-16) in the parking lane on the northwest side of 7th Street and one (1) monitoring well (MW-14) in a parking lane along Alice Street as discussed in AEI's "Site Monitoring Report (Second Quarter, 2008)", dated August 1, 2008. If permits can be obtained and the wells installed, developed, and sampled within a reasonable period of time, the results will be incorporated into the next Site Monitoring Report.
- While there is no room to reinstall soil gas probe GP-3 at 708 Alice Street, soil gas probe GP-4 will be reinstalled once the building construction activities have been completed, most likely during the Second or Third Quarter of 2009.

8.0 REFERENCES

Department of Toxic Substances Control (DTSC) & Los Angeles Regional Water Quality Control Board, 2003. "Advisory – Active Soil Gas Investigations", issued January 28, 2003.

Downey, D., Miller, R.N., and Dragoo, T., 2004. "Procedures for Conducting Bioventing Pilot Tests and Long-Term Monitoring of Bioventing Systems", prepared for the United States Air Force Center for Environmental Excellence by Parsons, Inc, Denver, Colorado.

DTSC, 2004. "Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air", Interim-Final, California Environmental Protection Agency, Sacramento, California, issued December 15, 2004, revised February 7, 2005.

Graymer, R.W., 2000. "Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California", U.S. Geologic Survey, Miscellaneous Field Studies MF2342, Online Version 1.0, includes 1 geologic map and 33 page pamphlet.

Helley, E.J. and Graymer, R.W., 1997. "Quaternary Geology of Alameda County, and parts of Contra Costa, Santa Clara, San Mateo, San Francisco, Stanislaus, and San Joaquin counties, California: A Digital Database", U.S. Geological Survey, Open-File Report 97-97, includes 1 geologic map, 1 map explanation sheet, and 9 page discussion booklet.

Hinchee, R.E., et al., 1992. "Test Plan and Technical Protocol for a Field Treatability Test for Bioventing", prepared for United States Air Force Center for Environmental Excellence by the Battelle, Columbus, Ohio.

Miller, R.N., et al., 1995. "Test Plan and Technical Protocol for a Field Treatability Test for POL Free Product Recovery – Evaluating the Feasibility of Traditional and Bioslurping Technologies", prepared for the United States Air Force Center for Environmental Excellence by the Battelle, Columbus, Ohio.

Norfleet Consultants, 1998. "Groundwater Study and Water Supply History of the East Bay Plain, Alameda and Contra Costa Counties, California", prepared for the Friends of the San Francisco Estuary, P.O. Box 791, Oakland, California, and dated June 15, 1998.

Place, M.C., Coonfare, C.T., Chen, A., Hoeppel, R.E., and Rosansky, S.H., 2001. "Principles and Practices of Bioslurping", Battelle Press, Columbus, Ohio

United States Army Core of Engineers, 1999. "Multi-Phase Extraction Engineer Manual", EM 1110-1-4010, Washington, DC.

9.0 REPORT LIMITATIONS AND SIGNATURES

This report presents a summary of work completed by AEI Consultants, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide requested information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses, observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document. These services were performed in accordance with generally accepted practices in the environmental engineering and geology fields that existed at the time and location of the work.

Should you have any questions or comments, or need any additional information, please contact Mr. Bradford (925) 944-2899, ext. 148 or Mr. McIntyre at (925) 944-2899, ext. 104.

Sincerely,

AEI Consultants

Richard J. Bradford

Project Engineer

Peter J. McIntyre, PG

Senior Project Manager

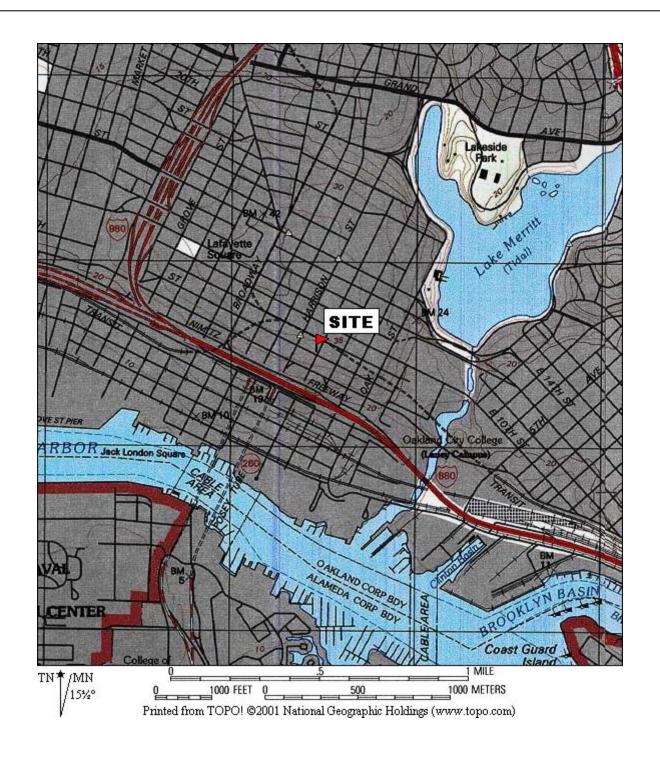
Distribution List:

Mr. Victor Lum (1 copy) Vic's Automotive 245 8th Street Oakland, California 94607

Attn. Mr. Jerry Wickham (electronic) Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

SWRCB's GeoTracker Information System (electronic)

FIGURES

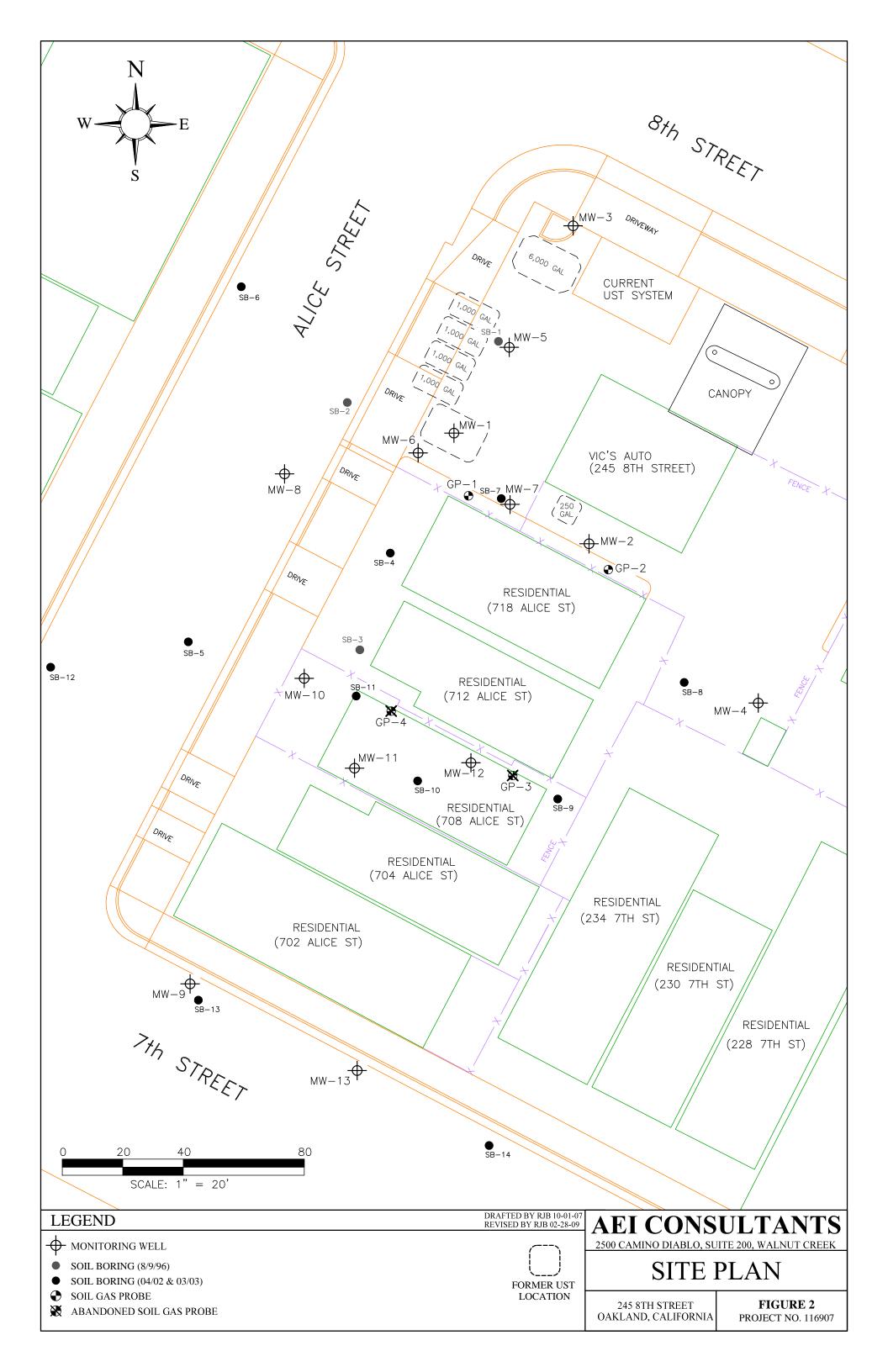


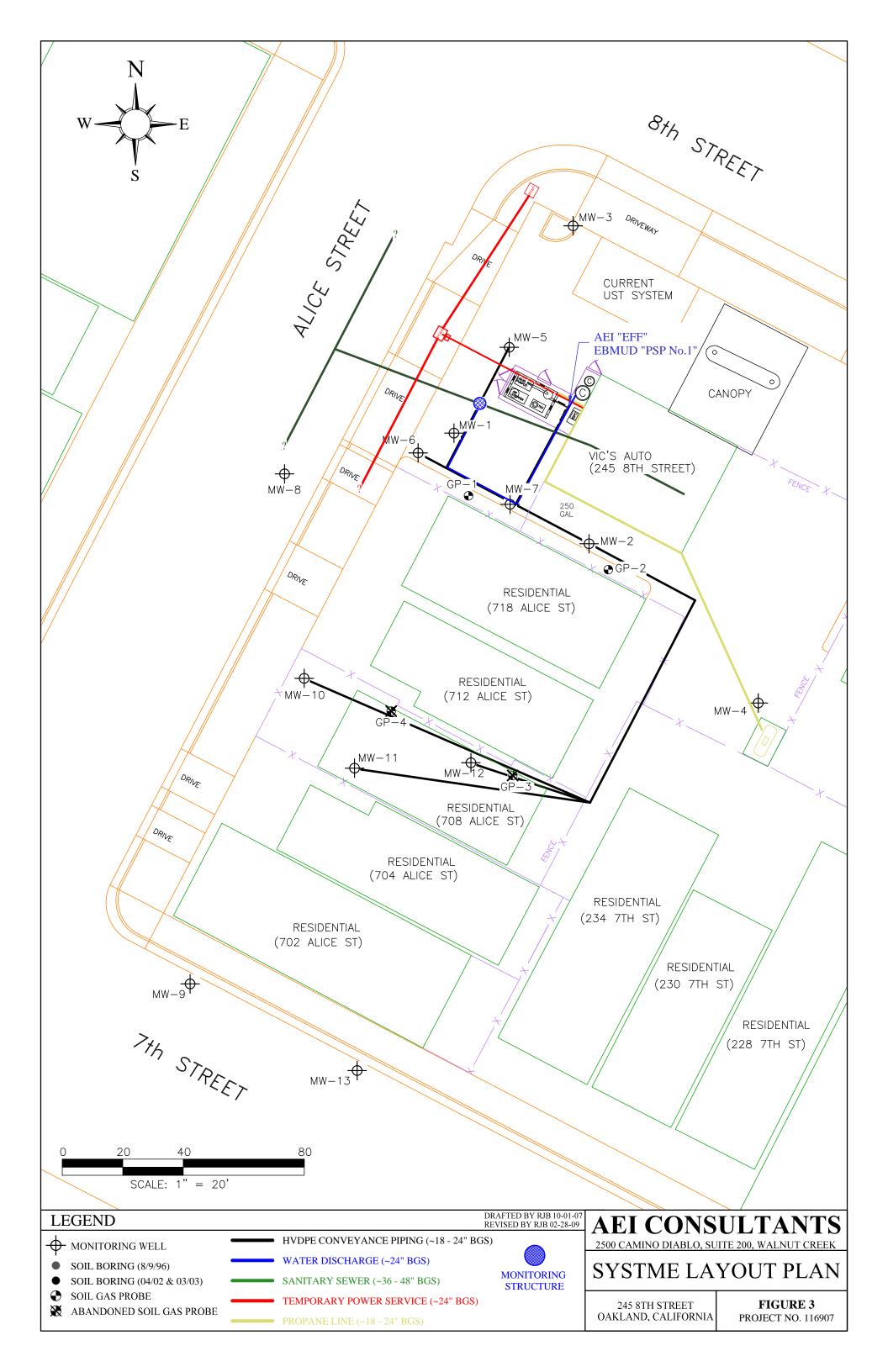
AEI CONSULTANTS

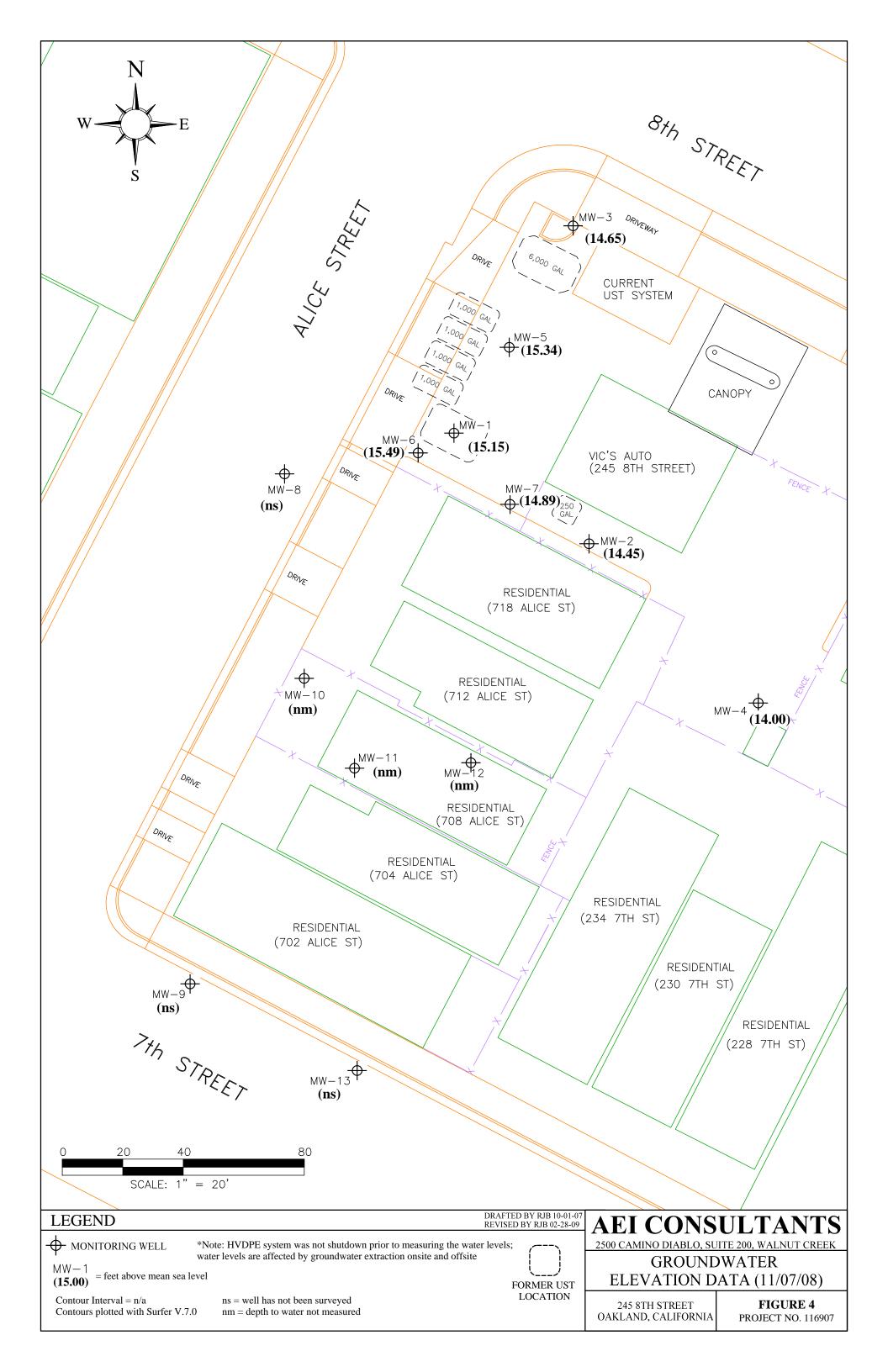
2500 CAMINO DIABLO BLVD, SUITE 200, WALNUT CREEK, CA

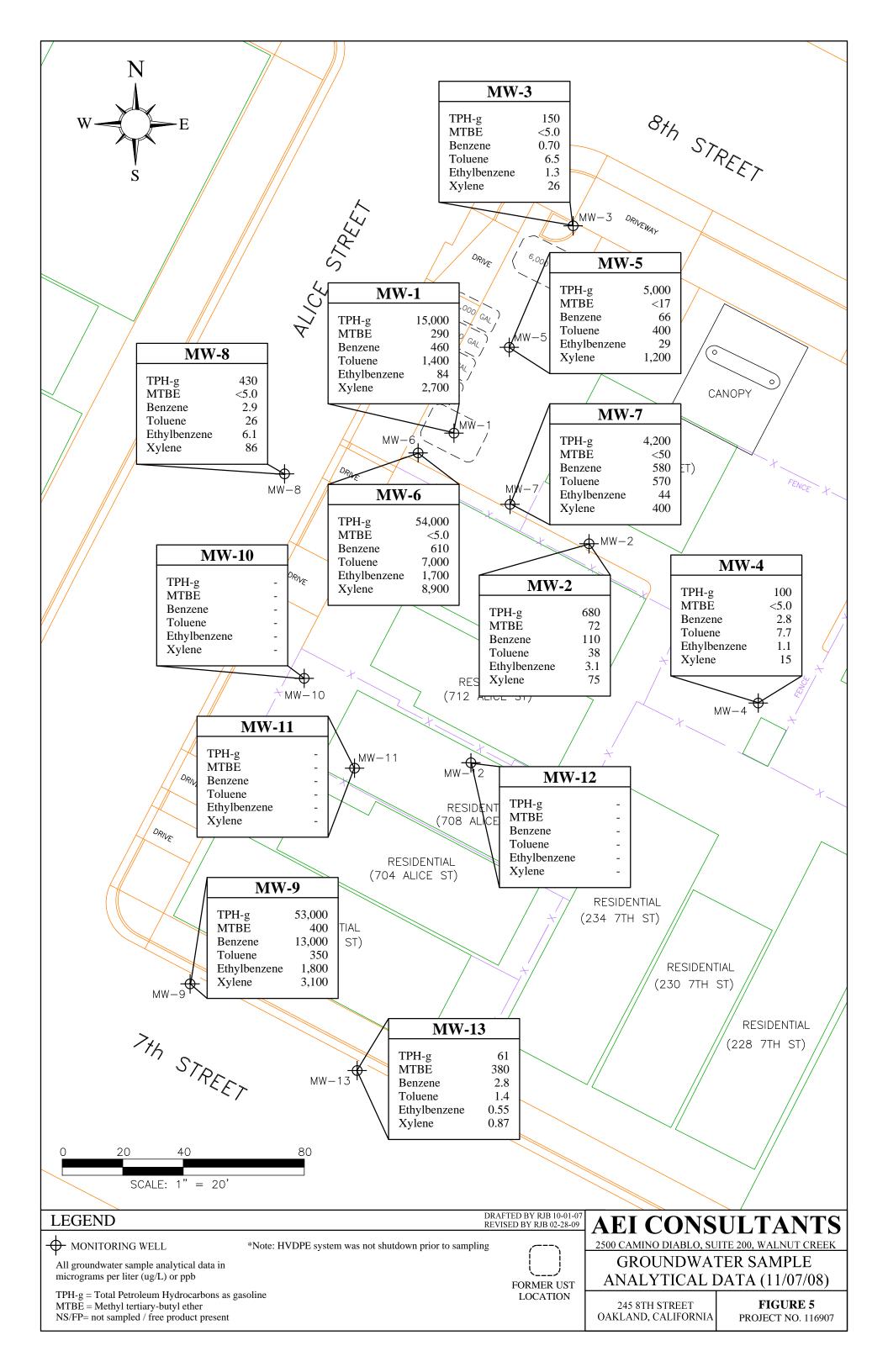
SITE LOCATION MAP

245 8th STREET OAKLAND, CALIFORNIA FIGURE 1 PROJECT No. 116907









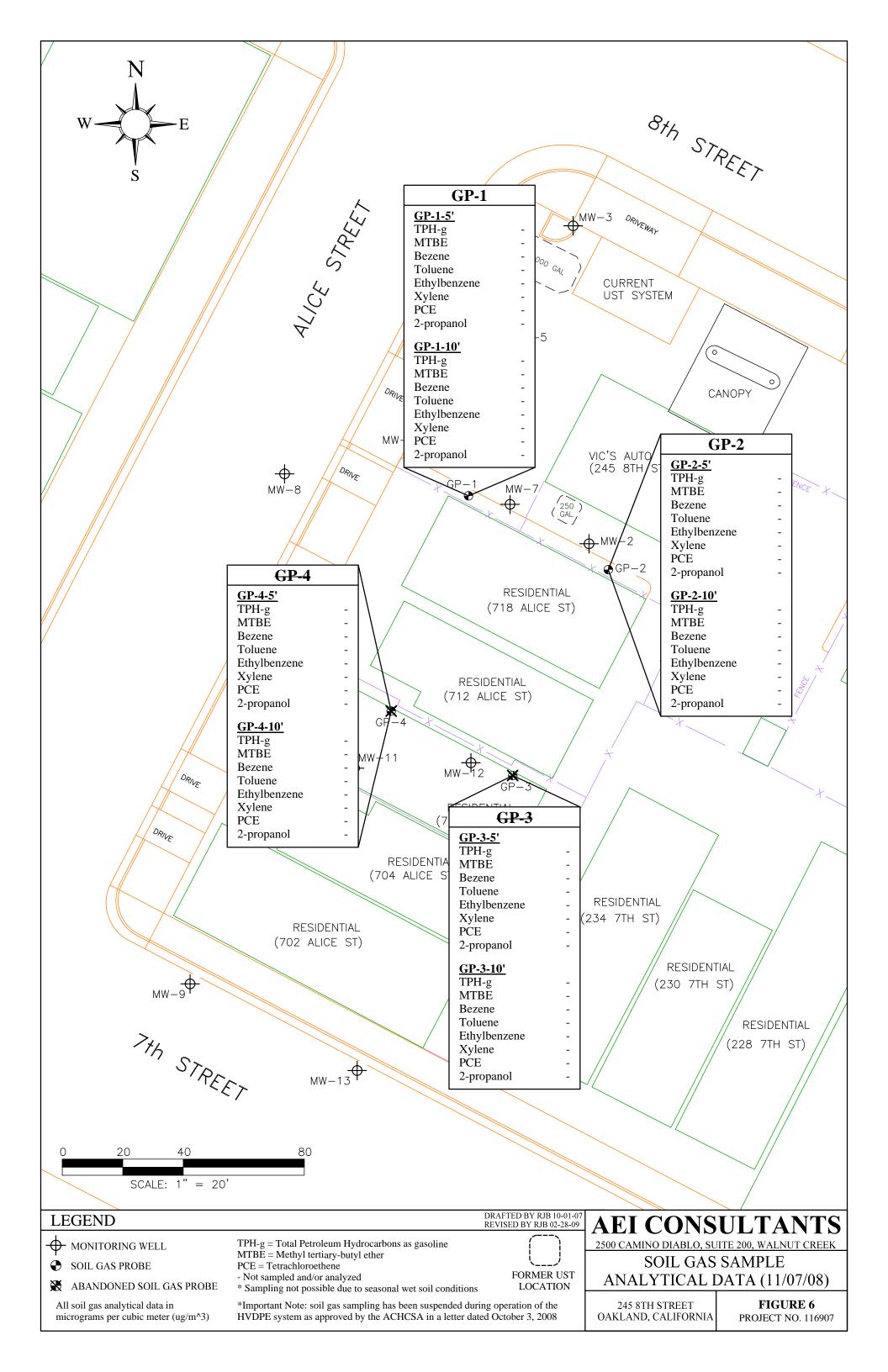


FIGURE 7: EXTRACTION WELL INFLUENT CONCENTRATIONS OVER TIME

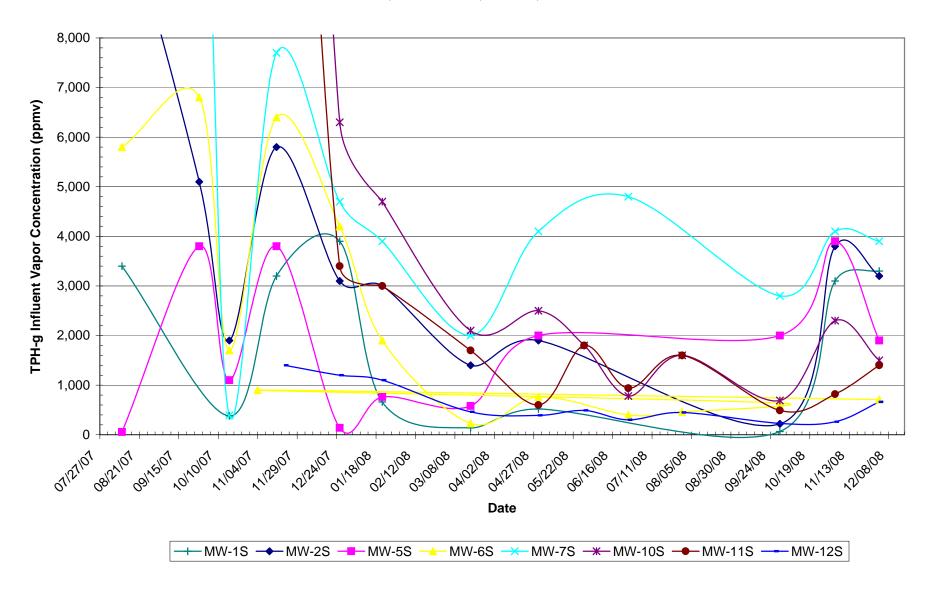


FIGURE 8: COMBINED SYSTEM INFLUENT CONCENTRATIONS OVER TIME

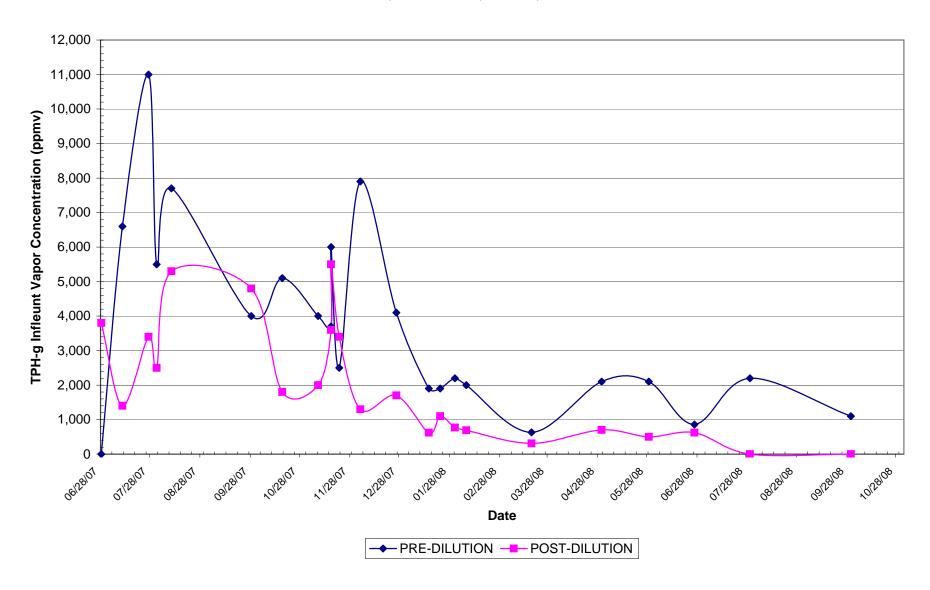


FIGURE 9: HYDROCARBON MASS REMOVAL RATES BASED ON LAB DATA

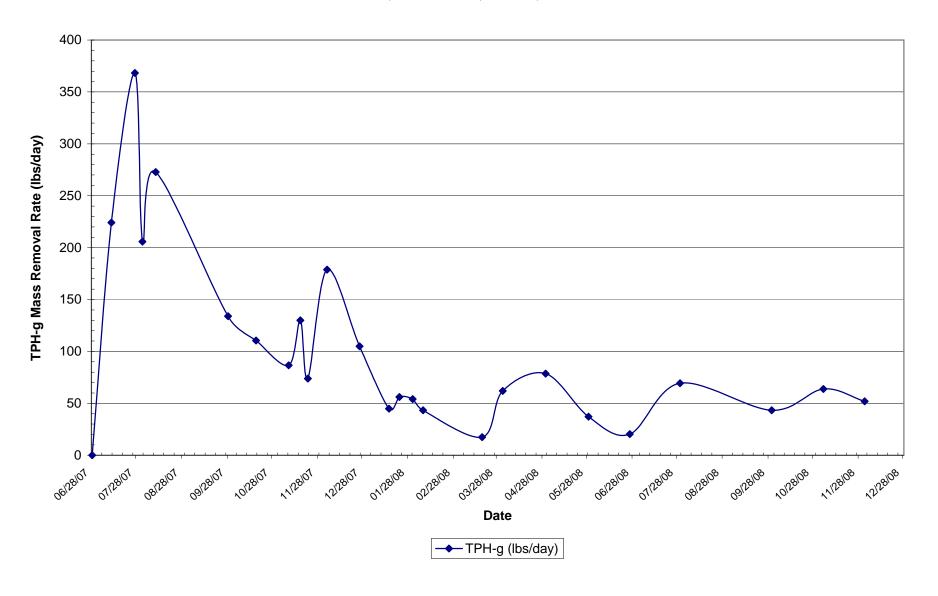
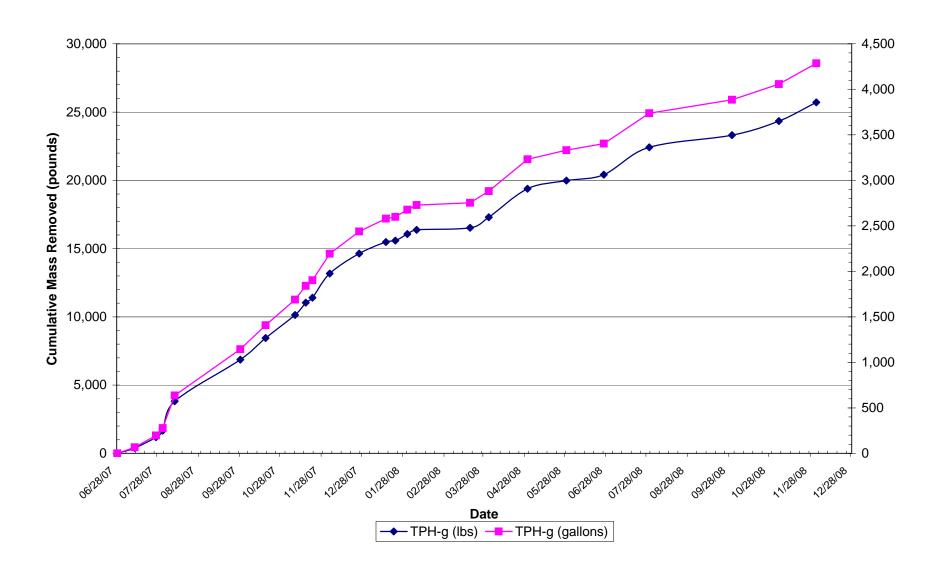


FIGURE 10: CUMULATIVE HYDROCARBON MASS REMOVED BASED ON LAB DATA



TABLES

TABLE 1: GROUNDWATER ELEVATION DATA

	1					
Well ID (screen interval)	Date Collected	TOC Well ^{1,2} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-1	06/29/01	27.73	16.52	11.21	14.89	1.63
(8-28)	10/10/01	27.73	15.45	12.28	15.37	0.08
	01/09/02	27.73	12.61	15.12	-	< 0.01
	04/24/02	27.73	13.35	14.38	-	< 0.01
	07/24/02	27.73	14.19	13.54	-	< 0.01
	11/05/02	27.73	14.85	12.88	-	< 0.01
	02/04/03	27.73	14.91	12.82	-	< 0.01
	05/02/03	27.73	14.43	13.30	-	0.08
	08/04/03	27.73	15.24	12.49	15.01	0.23
	11/03/03	27.73	16.94	10.79	15.67	1.27
	02/09/04	27.73	14.61	13.12	14.43	0.18
	05/10/04	27.73	Obstructed	-	-	-
	08/09/04	27.73	15.24	12.49	15.03	0.21
	11/09/04	27.73	15.95	11.78	15.71	0.24
	02/03/05	32.55	13.75	18.80	13.58	0.17
	05/09/05 08/05/05	32.55 32.55	13.93 15.40	18.62 17.15	13.81 15.39	0.12 0.01
	11/09/05	32.55 32.55	15.76	17.13 16.79	15.75	0.01
	02/09/06	32.55 32.55	13.76	19.03	13.75	0.01
	05/04/06	32.55 32.55	13.32 12.47	20.08	12.46	0.02
	08/04/06	32.55	15.11	20.08 17.44	15.09	0.01
	11/08/06	32.55	16.03	16.52	16.02	0.02
	02/08/07	32.55	16.51	16.04	16.48	0.03
	05/29/07	32.55	15.56	16.99	15.51	0.05
	09/05/07	32.55	16.33	16.22	-	Sheen
	12/12/07	32.55	17.62	14.93	_	Sheen
	02/13/08	32.55	15.94	16.61	_	Sheen
	05/15/08	32.55	16.64	15.91	_	-
	08/05/08	32.55	16.99	15.56	-	-
	11/07/08	32.55	17.40	15.15	-	-
MW-2	06/29/01	28.16	16.14	12.02	_	_
(8-28)	10/10/01	28.16	16.43	11.73	_	_
(===)	01/09/02	28.16	13.50	14.66	_	-
	04/24/02	28.16	14.40	13.76	-	-
	07/24/02	28.16	14.91	13.25	-	-
	11/05/02	28.16	16.96	11.20	-	-
	02/04/03	28.16	15.42	12.74	-	-
	05/02/03	28.16	15.24	12.92	-	-
	08/04/03	28.16	15.98	12.18	-	-
	11/03/03	28.16	16.60	11.56	-	Sheen
	02/09/04	28.16	15.22	12.94	-	Sheen
	05/10/04	28.16	15.34	12.82	-	Sheen
	08/09/04	28.16	15.92	12.24	-	Sheen
	11/09/04	28.16	16.51	11.65	-	Sheen
	02/03/05	33.24	14.44	18.80	-	Sheen
	05/09/05	33.24	14.67	18.57	-	Sheen
	08/05/05	33.24	16.27	16.97	-	Sheen
	11/09/05	33.24	16.53	16.71	-	Sheen
	02/09/06	33.24	14.36	18.88	-	Sheen
	05/04/06	33.24	13.46	19.78	-	Sheen
	08/04/06	33.24	15.95	17.29	-	Sheen

TABLE 1: GROUNDWATER ELEVATION DATA

Well ID (screen interval)	Date Collected	TOC Well ^{1,2} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness
·						(ft)
MW-2	11/08/06	33.24	16.86	16.38	-	Sheen
cont.	02/08/07	33.24	17.13	16.11	-	Sheen
	05/29/07	33.24	16.51	16.73	-	Sheen
	09/05/07	33.24	17.48	15.76	-	-
	12/12/07	33.24	18.72	14.52	-	-
	02/13/08	33.24	16.91	16.33	-	-
	05/15/08	33.24	17.67	15.57	-	-
	08/05/08	33.24	17.94	15.30	-	-
	11/07/08	33.24	18.79	14.45	-	-
MW-3	06/29/01	29.21	16.60	12.61	-	-
(10-25)	10/10/01	29.21	16.92	12.29	-	-
(/	01/09/02	29.21	14.20	15.01	_	_
	04/24/02	29.21	15.07	14.14	_	-
	07/24/02	29.21	16.40	12.81	-	-
	11/05/02	29.21	16.47	12.74	_	_
	02/04/03	29.21	16.92	12.29	_	_
	05/02/03	29.21	15.45	13.76	_	_
	08/04/03	29.21	16.46	12.75	_	_
	11/03/03	29.21	17.15	12.75	_	
	02/09/04	29.21	15.78	13.43	_	<u> </u>
	05/10/04	29.21	15.77	13.44	-	-
	08/09/04	29.21	16.45	12.76	-	-
	11/09/04	29.21 29.21	17.26	11.95	-	_
	02/03/05	34.25	15.92	18.33	-	<u>-</u>
	05/09/05	34.25 34.25	15.92	19.22	-	_
	08/05/05	34.25 34.25	16.59	19.22 17.66	-	-
	11/09/05	34.25 34.25	16.82	17.43	-	_
	02/09/06	34.25 34.25	14.65	17.43	-	-
	1				-	-
	05/04/06	34.25	13.61	20.64	-	-
	08/04/06	34.25	16.28	17.97	-	-
	11/08/06	34.25	17.28	16.97	-	i -
	02/08/07	34.25	17.68	16.57	-	-
	05/29/07	34.25	17.37	16.88	-	-
	09/05/07	34.25	18.53	15.72	-	<u>-</u>
	12/12/07	34.25	19.61	14.64	-	-
	02/13/08	34.25	18.12	16.13	-	-
	05/15/08	34.25	18.64	15.61	-	-
	08/05/08	34.25	18.88	15.37	-	-
	11/07/08	34.25	19.60	14.65	-	-
MW-4	06/29/01	29.38	17.71	11.67	-	-
(10-25)	10/10/01	29.38	18.00	11.38	-	-
	01/09/02	29.38	15.02	14.36	-	_
	04/24/02	29.38	15.74	13.64	-	-
	07/24/02	29.38	16.69	12.69	-	-
	11/05/02	29.38	17.64	11.74	-	-
	02/04/03	29.38	16.02	13.36	_	_
	05/02/03	29.38	16.72	12.66	_	_
ĺ	08/04/03	29.38	17.51	11.87	-	-
ĺ	11/03/03	29.38	18.09	11.29	_	<u> </u>
	02/09/04	29.38	16.67	12.71	-	-

TABLE 1: GROUNDWATER ELEVATION DATA

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	TOC Well ^{1,2} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-4	05/10/04	29.38	16.89	12.49	-	-
cont.	08/09/04	29.38	17.44	11.94	-	-
	11/09/04	29.38	17.89	11.49	-	-
	02/03/05	34.42	14.98	19.44	-	-
	05/09/05	34.42	16.20	18.22	-	-
	08/05/05	34.42	17.73	16.69	-	-
	11/09/05	34.42	17.91	16.51	-	-
	02/09/06	34.42	15.62	18.80	-	-
	05/04/06	34.42	15.12	19.30	-	-
	08/04/06	34.42	17.39	17.03	-	-
	11/08/06	34.42	18.30	16.12	-	-
	02/08/07	34.42	18.57	15.85	-	-
	05/29/07	34.42	18.29	16.13	-	-
	09/05/07	34.42	19.27	15.15	-	-
	12/12/07	34.42	20.44	13.98	-	-
	02/13/08	34.42	18.52	15.90	-	-
	05/15/08	34.42	19.42	15.00	-	-
	08/05/08	34.42	19.67	14.75	-	-
	11/07/08	34.42	20.42	14.00	-	-
MW-5	02/03/05	33.33	14.23	19.10	-	-
(12-22)	05/09/05	33.33	14.33	19.00	-	-
	08/05/05	33.33	15.89	17.44	-	-
	11/09/05	33.33	16.18	17.15	-	-
	02/09/06	33.33	14.02	19.31	-	-
	05/04/06	33.33	12.97	20.36	-	-
	08/04/06	33.33	15.63	17.70	-	-
	11/08/06	33.33	16.55	16.78	-	-
	02/08/07	33.33	16.12	17.21	-	-
	05/29/07	33.33	15.87	17.46	-	-
	09/05/07	33.33	16.95	16.38	-	-
	12/12/07	33.33	18.13	15.20	-	-
	02/13/08	33.33	16.58	16.75	-	-
	05/15/08	33.33	17.08	16.25	-	-
	08/05/08	33.33	17.42	15.91	-	-
	11/07/08	33.33	17.99	15.34	-	-
MW-6	02/03/05	32.82	13.99	18.83	-	Sheen
(12-22)	05/09/05	32.82	13.61	19.21	-	Sheen
	08/05/05	32.82	15.50	17.32	15.13	0.37
	11/09/05	32.82	15.87	16.95	15.50	0.37
	02/09/06	32.82	13.93	18.89	13.22	0.71
	05/04/06	32.82	12.88	19.94	12.13	0.75
	08/04/06	32.82	15.22	17.60	14.81	0.41
	11/08/06	32.82	16.16	16.66	15.78	0.38
	02/08/07	32.82	15.48	17.34	15.14	0.34
	05/29/07	32.82	15.35	17.47	15.04	0.31
	09/05/07	32.82	15.55	17.27	-	-
	12/12/07	32.82	17.22	15.60	-	Sheen
	02/13/08	32.82	15.54	17.28	-	Sheen
	05/15/08	32.82	16.25	16.57	-	-
	08/05/08	32.82	16.48	16.34	-	-
	11/07/08	32.82	17.33	15.49	-	

Project No. 116907

TABLE 1: GROUNDWATER ELEVATION DATA

Well ID (screen interval)	Date Collected	TOC Well ^{1,2} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-7	02/03/05	33.07	14.17	18.90		Sheen
(12-22)	05/09/05	33.07	14.17	18.60	14.44	0.03
(12-22)	08/05/05	33.07	16.07	17.00	16.02	0.05
	11/09/05	33.07	16.47	16.60	16.35	0.03
	02/09/06	33.07	14.18	18.89	14.11	0.12
	05/04/06	33.07	13.12	19.95	13.11	0.07
	08/04/06	33.07	15.74	17.33	13.11	Sheen
	11/08/06	33.07	16.59	16.48	_	Sheen
	02/08/07	33.07	16.23	16.84	_	Sheen
	05/29/07	33.07	16.13	16.94	_	Sheen
	09/05/07	33.07	16.40	16.67	_	Sheen
	12/12/07	33.07	18.02	15.05	_	Sheen
	02/13/08	33.07	16.27	16.80	_	Sheen
	05/15/08	33.07	17.01	16.06	_	Silecti
	08/05/08	33.07	17.23	15.84	_	_
	11/07/08	33.07	18.18	14.89	_	_
	11,07,00	22107	10,10	1		
MW-8	05/15/08	33.00	16.47	16.53	_	-
(12-22)	08/05/08	33.00	16.88	16.12	_	_
,	11/07/08	33.00	17.28	15.72	-	-
MW-9	05/15/08	32.00	15.16	16.84	-	-
(12-22)	08/05/08	32.00	15.38	16.62	-	-
	11/07/08	32.00	15.84	16.62	-	-
MW-10	02/03/05	31.17	12.65	18.52	-	-
(12-22)	05/09/05	31.17	13.09	18.08	-	-
	08/05/05	31.17	14.68	16.49	-	-
	11/09/05	31.17	14.94	16.23	-	-
	02/09/06	31.17	12.82	18.35	-	-
	05/04/06	31.17	12.11	19.06	-	-
	08/04/06	31.17	14.38	16.79	-	-
	11/08/06	31.17	15.32	15.85	-	-
	02/08/07	31.17	15.59	15.58	-	-
	05/29/07	31.17	15.27	15.90	-	-
	09/05/07	31.17	16.25	14.92	-	-
	12/12/07	31.17	17.75	13.42	-	Sheen
	02/13/08	31.17	15.59	15.58	-	-
	05/15/08	31.17	16.40	14.77	-	-
	08/05/08	31.17	16.67	14.50	-	-
	11/07/08	31.17	nm	-	-	-

TABLE 1: GROUNDWATER ELEVATION DATA

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	TOC Well ^{1,2} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-11	02/03/05	31.78	13.39	18.39	-	Sheen
(12-22)	05/09/05	31.78	13.89	17.89	-	Sheen
	08/05/05	31.78	15.47	16.31	-	Sheen
	11/09/05	31.78	15.73	16.05	-	Sheen
	02/09/06	31.78	13.53	18.25	-	Sheen
	05/04/06	31.78	12.73	19.05	-	Sheen
	08/04/06	31.78	15.17	16.61	-	Sheen
	11/08/06	31.78	16.15	15.63	-	-
	02/08/07	31.78	16.36	15.42	-	Sheen
	05/29/07	31.78	16.06	15.72	-	Sheen
	09/05/07	31.78	17.03	14.75	-	Sheen
	12/12/07	31.78	18.68	13.10	-	-
	02/13/08	31.78	16.28	15.50	-	-
	05/15/08	31.78	17.12	14.66	-	-
	08/05/08	31.78	17.33	14.45	-	-
	11/07/08	31.78	nm	-	-	-
MW-12	02/03/05	32.05	13.70	18.35	-	Sheen
(12-22)	05/09/05	32.05	14.17	17.88	-	Sheen
	08/05/05	32.05	15.69	16.36	-	Sheen
	11/09/05	32.05	15.93	16.12	-	Sheen
	02/09/06	32.05	13.78	18.27	-	Sheen
	05/04/06	32.05	12.98	19.07	-	Sheen
	08/04/06	32.05	15.39	16.66	-	Sheen
	11/08/06	32.05	16.29	15.76	-	-
	02/08/07	32.05	16.54	15.51	-	-
	05/29/07	32.05	16.27	15.78	-	-
	09/05/07	32.05	17.24	14.81	-	-
	12/12/07	32.02	18.65	13.37	-	-
	02/14/08	32.02	16.50	15.52	-	-
	05/15/08	32.02	17.34	14.68	-	-
	08/05/08	32.02	17.61	14.41	-	-
	11/07/08	32.02	nm	-	-	-
MW-13	05/15/08	32.00	14.87	17.13	_	-
(12-22)	08/05/08	32.00	15.10	16.90	-	-
/	11/07/08	32.00	15.61	16.90	-	-

NOTES:

- not applicable

ft = feet

 $ft\; amsl = feet\; above\; mean\; sea\; level$

 $nm = not \ measured$

 $LNAPL = light\ non-aqueous\ phase\ liquid\ (i.e.,\ free\ product)$

 $Red = Assumed \ elevation, \ awaiting \ final \ survey \ pending \ installation \ of \ proposed \ monitoring \ wells \ MW-14, MW-15, \ and \ MW-16$

- 1) Monitoring well top of casing (TOC) elevations were resurveyed by Morrow Surveying on January 10, 2006 and February 7, 2006
- 2) Groudwater elevations for the February 3, 2005 and subsequent monitoring episodes use the new well survey data
- 3) Depth water is measured from the top of the well casing
- 4) When LNAPL is present at >0.10 ft, the groundwater elevations are assumed to be affected by the LNAPL

5)

TABLE 2: GROUNDWATER FLOW SUMMARY

Vic's Auto, 245 8th Street, Oakland, California

Episode#	Date	Average Groundwater Elevation ¹ (ft amsl)	Change from Previous Episode (ft)	Flow direction (gradient)
1	06/29/01	12.10	-	SSE (0.0074)
2	10/10/01	11.80	-0.30	SSE (0.0071)
3	01/09/02	14.68	2.88	SE (0.0054)
4	04/24/02	13.85	-0.83	SSW (0.005)
5	07/24/02	12.92	-0.93	NE (0.021)
6	11/05/02	11.89	-1.02	SW (0.019)
7	02/04/03	12.80	0.90	NNW (0.01)
8	05/02/03	13.11	0.32	SSE (0.01)
9	08/04/03	12.27	-0.85	SSE(0.007)
10	11/03/03	11.64	-0.63	SSE (0.006)
11	02/09/04	13.03	1.39	SSE (0.006)
12	05/10/04	12.92	-0.11	SSE (0.008)
13	08/09/04	12.31	-0.60	SSE (0.006)
14	11/09/04	11.70	-0.62	SSE (0.004)
15	02/03/05	18.75	-	W (0.007)
16	05/09/05	18.53	-0.22	S (0.010)
17	08/05/05	16.94	-1.59	S (0.010)
18	11/09/05	16.65	-0.28	S (0.010)
19	02/09/06	18.83	2.17	SSW (0.010)
20	05/04/06	19.72	0.90	SSW (0.012)
21	08/04/06	17.24	-2.48	SSW (0.010)
22	11/08/06	16.32	-0.93	SSW(0.0007)
23	02/08/07	16.25	-0.07	SSE (0.0009)
24	05/29/07	16.60	0.35	SSE (0.0009)
25*	09/05/07	15.77	-0.84	-
26*	12/12/07	14.38	-1.38	-
27*	02/13/08	16.24	1.86	-
28*	05/15/08	15.81	-0.43	-
29*	08/05/08	15.54	-0.27	-
30*	11/07/08	15.32	-0.22	-

NOTES:

- not applicable

ft = feet

ft amsl = feet above mean sea level

¹⁾ MW-2 to MW-4 only used for episodes 1 through 14; all wells used for episodes 15 and later

^{*} = Flow direction not calculated due to onsite operation of dual-phase extraction remediation system

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (μg/L)	MTBE (μg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Xylenes (μg/L)	HVOC (µg/L)
MW-1	06/29/01	1.63	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
(8-28)	10/10/01	0.08	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	01/09/02	< 0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	04/24/02	< 0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	07/24/02	~0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/05/02	~0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/04/03	~0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	05/02/03	0.08	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	08/04/03	0.23	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/03/03	1.27	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/09/04	0.18	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	05/10/04	Obstructed	-	-	-	-	-	-	-
	08/09/04	0.21	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/09/04	0.24	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/03/05	0.17	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	05/09/05	0.12	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	08/05/05	0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/09/05	0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/09/06	0.02	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	05/04/06	0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	08/04/06	0.02	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/08/06	0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/08/07	0.03	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	05/29/07	0.05	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	09/05/07	Sheen	47,000	< 500	4,200	11,000	1,100	6,400	-
	12/12/07	Sheen	80,000	<250	630	22,000	1,700	8,900	-
	02/13/08	Sheen	22,000	<250	750	4,100	340	3,200	-
	05/15/08	0.00	25,000	< 600	580	9,200	970	4,200	-
	08/05/08	0.00	110,00	<1,000	730	22,000	1,700	8,200	-
	11/07/08	0.00	15,000	290	460	1,400	84	2,700	-
MW-2	06/29/01	0.00	69,000	4,100/4,400*	7,200	6,100	1,500	7,000	-
(8-28)	10/10/01	0.00	87,000	14,000	22,000	12,000	2,700	9,100	-
,	01/09/02	0.00	130,000	11,000	30,000	19,000	3,800	14,000	-
	04/24/02	Sheen	210,000	32,000	38,000	23,000	4,600	19,000	-
	07/24/02	Sheen	170,000	36,000	48,000	12,000	3,700	8,600	-
	11/05/02	Sheen	190,000	36,000	45,000	25,000	4,600	16,000	-
	02/04/03	Sheen	150,000	27,000	51,000	24,000	4,200	14,000	-
	05/02/03	Sheen	150,000	35,000	39,000	11,000	3,800	9,900	-
	08/04/03	Sheen	120,000	29,000	32,000	5,000	3,200	7,200	-
	11/03/03	Sheen	120,000	24,000	33,000	4,300	3,200	5,400	-
	02/09/04	Sheen	130,000	19,000	27,000	7,700	3,100	7,600	-
	05/10/04	Sheen	67,000	13,000	20,000	3,000	2,300	4,100	-
	08/09/04	Sheen	100,000	22,000	27,000	7,100	2,800	6,600	-
	11/09/04	Sheen	100,000	23,000	27,000	6,100	3,000	5,600	-
	02/03/05	Sheen	84,000	11,000	23,000	5,000	3,000	5,500	-
	05/09/05	Sheen	74,000	14,000	21,000	4,200	2,300	3,300	-
	07/27/05	Sheen	9,500	910	1,400	1,000	180	960	-
	08/05/05	Sheen	74,000	4,000	8,800	11,000	1,300	7,600	-
	11/09/05	Sheen	120,000	16,000	21,000	14,000	2,300	13,000	-
	02/09/06	Sheen	120,000	10,000	18,000	16,000	2,200	13,000	-

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (μg/L)	MTBE (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Xylenes (μg/L)	HVOC (µg/L)
MW-2	05/04/06	Sheen	71,000	8,300	14,000	11,000	1,500	7,600	-
cont	08/04/06	Sheen	160,000	14,000	22,000	14,000	2,400	11,000	-
	11/08/06	Sheen	110,000	6,400	17,000	9,200	1,600	6,800	<dl< td=""></dl<>
	02/08/07 ¹	Sheen	68,000	5,400	11,000	7,800	1,500	7,700	-
	05/29/07	Sheen	49,000	4,800	7,600	4,400	940	4,600	-
	09/05/07	Sheen	25,000	1,000	3,300	3,400	490	2,800	-
	12/12/07	0.00	5,500	870	1,100	440	28	550	-
	02/13/08	0.00	5,700	250	440	290	43	1,000	-
	05/15/08	0.00	490	68 -25	110	11	0.90	42	-
	08/05/08	0.00	520	<25	26	57 20	7.6	70 75	-
	11/07/08	0.00	680	72	110	38	3.1	75	-
MW-3	06/29/01	0.00	550	< 5.0	< 0.5	3.1	3.2	1.2	-
(10-25)	10/10/01	0.00	470	< 5.0	0.77	5.3	3.3	5.9	-
	01/09/02	0.00	1,000	< 5.0	0.90	7.6	7.8	25	-
	04/24/02	0.00	1,500	< 5.0	0.64	7.2	12	14	-
	07/24/02	0.00	1,200	< 5.0	10	17.0	11	25	-
	11/05/02	0.00	1,800	<25	33	43.0	18	31	-
	02/04/03	0.00	450	< 5.0	< 0.5	5.0	< 0.5	0.77	-
	05/02/03	0.00	340	< 5.0	7.3	10.0	2.5	7.3	-
	08/04/03	0.00	170	< 5.0	5.8	5.9	1.5	4.9	-
	11/03/03	0.00	54	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	02/09/04	0.00	190	< 5.0	<0.5	3.6	<0.5	<0.5	-
	05/10/04	0.00	280	< 5.0	< 0.5	3.4	< 0.5	< 0.5	-
	08/09/04	0.00	290	<5.0	<0.5	3.8	<0.5	<0.5	-
	11/09/04	0.00	220	<5.0	< 0.5	4.0	<0.5 3	<0.5 21	-
	02/03/05 05/09/05	0.00 0.00	160 200	<5.0 <5.0	13 <0.5	30 3.9	<0.5	< 0.5	-
	08/05/05	0.00	<50	<5.0 <5.0	<0.5	< 0.5	<0.5	<0.5 <0.5	-
	11/09/05	0.00	130	<5.0 <5.0	<0.5	2.3	<0.5	<0.5	_
	02/09/06	0.00	270	<5.0	< 0.5	5.6	< 0.5	< 0.5	_
	05/04/06	0.00	220	<5.0	< 0.5	4.3	< 0.5	< 0.5	_
	08/04/06	0.00	93	<5.0	< 0.5	1.5	< 0.5	< 0.5	_
	11/08/06	0.00	160	< 5.0	< 0.5	2.9	< 0.5	< 0.5	<dl< td=""></dl<>
	02/08/071	0.00	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	05/29/07	0.00	<50	<5.0	< 0.5	< 0.5	< 0.5	< 0.5	_
	09/05/07	0.00	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	12/12/07	0.00	<50	<5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	02/13/08	0.00	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	05/15/08	0.00	< 50	< 5.0	0.99	< 0.5	< 0.5	0.68	-
	08/05/08	0.00	91	< 5.0	2.0	8.0	1.3	8.0	-
	11/07/08	0.00	150	<5.0	0.70	6.5	1.3	26	-
NAXX7 4	06/20/01	0.00	~F.O	~F. O	-0.5	-O 5	-0.5	-0.5	
MW-4	06/29/01	0.00	<50	<5.0	<0.5	<0.5	< 0.5	<0.5	-
(10-25)	10/10/01 01/09/02	0.00 0.00	<50 <50	<5.0 <5.0	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	-
	01/09/02 04/24/02	0.00	<50 <50	<5.0 <5.0	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	_
	04/24/02 07/24/02	0.00	<50 <50	<5.0 <5.0	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	-
	11/05/02	0.00	<50	<5.0 <5.0	<0.5	<0.5	<0.5	<0.5	_
	02/04/03	0.00	<50	<5.0 <5.0	<0.5	<0.5	<0.5	<0.5	_
	05/02/03	0.00	500	10	68	71	18	65	_
	08/04/03	0.00	270	<5.0	30	29	9.2	32	_

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (μg/L)	MTBE (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Xylenes (μg/L)	HVOC (µg/L)
MW-4	11/03/03	0.00	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
cont	02/09/04	0.00	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	05/10/04	0.00	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	08/09/04	0.00	130	< 5.0	14	13	5.3	17	-
	11/09/04	0.00	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	02/03/05	0.00	370	< 5.0	< 0.5	4.1	< 0.5	0.64	-
	05/09/05	0.00	840	< 5.0	50	180	21	110	-
	07/27/05	0.00	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	08/05/05	0.00	310	< 5.0	7.5	57	10	53	-
	11/09/05	0.00	290	< 5.0	12	61	8.8	49	-
	02/09/06	0.00	250	< 5.0	9.9	42	7.5	45	-
	05/04/06	0.00	300	< 5.0	37	76	7.8	42	-
	08/04/06	0.00	270	< 5.0	7.3	33	5.6	32	-
	11/08/06	0.00	1,300	< 5.0	75	230	31	160	<dl< td=""></dl<>
	02/08/07	0.00	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	05/29/07	0.00	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	09/05/07	0.00	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	12/12/07	0.00	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	-
	02/13/08	0.00	75	< 5.0	2.4	8.3	1.2	14	-
	05/15/08	0.00	< 50	< 5.0	0.65	< 0.5	< 0.5	0.52	-
	08/05/08	0.00	76	< 5.0	1.2	8.1	1.5	9.7	-
	11/07/08	0.00	100	<5.0	2.8	7.7	1.1	15	-
MW-5	02/03/05	0.00	78,000	<1,000	7,600	13,000	2,200	9,600	-
(12-22)	05/09/05	0.00	60,000	<900	6,100	9,900	1,600	6,600	-
	07/27/05	nm	120,000	1,100	10,000	19,000	2,100	13,000	-
	08/05/05	0.00	59,000	< 500	4,100	10,000	1,200	6,600	-
	11/09/05	0.00	44,000	< 500	3,300	7,400	1,100	4,900	-
	02/09/06	0.00	110,000	< 500	10,000	22,000	2,400	13,000	-
	05/04/06	0.00	110,000	<250	11,000	22,000	2,900	15,000	-
	08/04/06	0.00	73,000	< 500	4,700	8,600	1,700	7,600	-
	11/08/06	0.00	51,000	< 500	3,700	7,200	1,400	6,700	<dl< th=""></dl<>
	02/08/07	0.00	67,000	<800	5,100	10,000	1,800	10,000	-
	05/29/07	0.00	86,000	<1000	6,200	12,000	2,000	11,000	-
	09/05/07	0.00	36,000	<350	2,100	4,000	560	4,600	-
	12/12/07	0.00	8,200	<100	160	56	290	1,200	-
	02/13/08	0.00	4,600	< 50	77	440	41	1,300	-
	05/15/08	0.00	3,000	<10	59	330	47	670	-
	08/05/08	0.00	4,500	< 50	64	490	46	1,100	-
	11/07/08	0.00	5,000	<17	66	400	29	1,200	-
MW-6	02/03/05	Sheen	130,000	<1,000	2,400	33,000	2,400	15,000	_
(12-22)	05/09/05	Sheen	170,000	<4,000	11,000	43,000	3,100	16,000	-
	08/05/05	0.37	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	_
	11/09/05	0.37	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/09/06	0.71	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	_
	05/04/06	0.75	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	08/04/06	0.41	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/08/06	0.38	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (μg/L)	MTBE (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Xylenes (μg/L)	HVOC (µg/L)
MW-6	02/08/07	0.34	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
cont	05/29/07	0.31	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	09/05/07	0.00	74,000	< 750	870	7,000	2,400	12,000	-
	12/12/07	Sheen	12,000	<10	556	560	550	1,800	-
	02/13/08	Sheen	27,000	<250	700	4,900	620	5,300	<dl< td=""></dl<>
	05/15/08	0.00	25,000	<150	410	2,500	1,000	3,700	-
	08/05/08	0.00	33,000	<350	480	5,500	1,400	6,800	-
	11/07/08 ²	0.00	54,000	<5.0	610	7,000	1,700	8,900	-
MW-7	02/03/05	Sheen	220,000	18,000	45,000	44,000	3,500	18,000	-
(12-22)	05/09/05	0.03	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	08/05/05	0.05	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	11/09/05	0.12	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	02/09/06	0.07	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	05/04/06	0.01	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	08/04/06	Sheen	230,000	19,000	37,000	37,000	3,100	14,000	-
	11/08/06	Sheen	240,000	13,000	41,000	39,000	3,000	14,000	<dl< td=""></dl<>
	02/08/07	Sheen	230,000	15,000	41,000	37,000	3,700	20,000	-
	05/29/07	Sheen	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	09/05/07	Sheen	14,000	<450	41	210	99	1,600	-
	12/12/07	Sheen	9,200	< 500	1,100	870	66	1,100	-
	02/13/08	0.00	17,000	590	2,800	2,700	300	1,900	-
	05/15/08	0.00	10,000	230	1,700	1,900	200	950 740	-
	08/05/08 11/07/08	0.00 0.00	6,100 4,200	<150 <50	1,100 580	1,100 570	120 44	740 400	- -
MW-8	05/15/08	0.00	90	<5.0	0.62	2.4	< 0.5	1.0	-
(12-22)	08/05/08	0.00	81	< 5.0	0.66	7.2	1.2	9.1	-
	11/07/08	0.00	430	<5.0	2.90	26.0	6.1	86	-
MW-9	05/15/08	0.00	60,000	960	14,000	410	1,500	3,500	-
(12-22)	08/05/08	0.00	42,000	<1,200	13,000	400	1,800	4,800	-
	11/07/08 ²	0.00	53,000	400	13,000	350	1,800	3,100	-
MW-10	02/03/05	0.00	36,000	< 500	4,700	7,200	660	3,400	-
(12-22)	05/09/05	0.00	88,000	<1,500	6,900	20,000	2,300	9,900	-
,	08/05/05	0.00	88,000	<1,100	10,000	21,000	1,900	9,800	-
	11/09/05	0.00	63,000	<1,100	5,400	13,000	1,900	7,900	-
	02/09/06	0.00	100,000	< 500	6,600	19,000	2,900	13,000	-
	05/04/06	0.00	100,000	< 500	8,500	25,000	3,000	13,000	-
	08/04/06	0.00	190,000	<2,200	17,000	35,000	2,800	13,000	-
	11/08/06	0.00	57,000	< 500	2,500	7,600	1,600	5,700	<dl< td=""></dl<>
	02/08/07	0.00	69,000	<1,000	4,400	14,000	2,200	8,800	-
	05/29/07	0.00	100,000	<1,000	5,300	19,000	2,600	12,000	-
	09/05/07	0.00	87,000	<1,000	6,100	20,000	2,400	12,000	-
	12/12/07	Sheen	4,700	<50	95 100	280	110	730	-
	02/13/08	0.00	4,500	<250	190	370	65	880	-
	05/15/08	0.00	4,800	<50	130	320	110	710	-
	08/05/08	0.00	3,500	<120	230	180	74	190	-
	11/07/08 ³	-	-	-	<u>-</u>	-	-	-	-

Vic's Auto, 245 8th Street, Oakland, California

Well ID (screen interval)	Date Collected	Apparent LNAPL Thickness (ft)	TPH-g (μg/L)	MTBE (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Xylenes (μg/L)	HVOC (μg/L)
MW-11	02/03/05	Sheen	170,000	<3,000	23,000	35,000	3,100	16,000	-
(12-22)	05/09/05	Sheen	210,000	3,500	29,000	40,000	3,400	16,000	-
	07/27/05	Sheen	220,000	2,500	26,000	37,000	3,200	18,000	-
	08/05/05	Sheen	210,000	<2,500	35,000	42,000	3,300	16,000	-
	11/09/05	Sheen	180,000	9,100	32,000	47,000	3,600	18,000	-
	02/09/06	Sheen	210,000	10,000	33,000	39,000	3,800	20,000	-
	05/04/06	Sheen	190,000	12,000	34,000	41,000	3,500	17,000	-
	08/04/06	Sheen	290,000	11,000	33,000	43,000	3,300	15,000	-
	11/08/06	0.00	240,000	14,000	34,000	44,000	3,300	16,000	<dl< th=""></dl<>
	02/08/07	0.00	230,000	19,000	43,000	44,000	3,900	20,000	-
	05/29/07	0.00	230,000	19,000	35,000	39,000	3,600	20,000	-
	09/05/07	0.00	200,000	19,000	34,000	36,000	3,700	23,000	-
	12/12/07	0.00	81,000	4,000	9,400	9,500	1,700	9,700	-
	02/13/08	0.00	36,000	4,200	5,700	4,000	560	5,300	-
	05/15/08	0.00	15,000	2,300	2,800	1,400	120	1,900	-
	08/05/08	0.00	12,000	1,100	1,800	760	98	630	-
	11/07/08 ³	-	-	-	-	-	-	-	-
MW-12	02/03/05	Sheen	250,000	100,000	52,000	41,000	3,400	15,000	-
(12-22)	05/09/05	Sheen	210,000	91,000	44,000	28,000	3,300	13,000	-
	08/05/05	Sheen	170,000	52,000	38,000	28,000	3,000	12,000	-
	11/09/05	Sheen	180,000	52,000	39,000	25,000	2,900	12,000	-
	02/09/06	Sheen	170,000	34,000	40,000	23,000	3,500	15,000	-
	05/04/06	Sheen	160,000	47,000	33,000	28,000	2,800	10,000	-
	08/04/06	Sheen	240,000	55,000	40,000	24,000	3,200	12,000	-
	11/08/06	0.00	190,000	33,000	40,000	23,000	2,700	13,000	<dl< th=""></dl<>
	02/08/07	0.00	150,000	34,000	38,000	19,000	3,300	12,000	-
	05/29/07	0.00	150,000	30,000	30,000	15,000	3,100	13,000	-
	09/05/07	0.00	160,000	38,000	33,000	21,000	3,200	14,000	-
	12/12/07	0.00	58,000	6,700	10,000	7,100	1,200	4,900	-
	02/13/08	0.00	17,000	3,000	3,600	2,300	440	1,800	-
	05/15/08	0.00	7,800	1,900	2,000	500	130	640	-
	08/05/08	0.00	3,900	800	730	130	61	200	-
	11/07/08 ³	-	-	-	-	-	-	-	-
MW-13	05/15/08	0.00	<250	6,700	18	<2.5	<2.5	<2.5	-
(12-22)	08/05/08	0.00	<250	3,400	<2.5	5.7	<2.5	4.3	
	11/07/08	0.00	61	380	2.8	1.4	0.55	0.87	

NOTES:

- not sampled/analyzed

ft = feet

ns/fp = not sampled / free product present $\mu g/L = micrograms$ per liter or parts per billion (ppb) TPH-g by EPA Method SW8015Cm BTEX & MTBE by EPA Method SW8021B

TPH-g = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

HVOC= halogenated volatile organic compounds (e.g., PCE, TCE, DCE, VC)

DL = detection limit

5)

¹⁾ Analytical results for MW-2 and MW-3 reversed from lab data based on historical concentration trends observed

²⁾ Groundwate sample re-analyzed for MTBE-only by EPA Method SW8260B

³⁾ Wellheads removed and wells now located ~4' below grade beneath new residential construction; routine sampling is no longer possible

⁴⁾

TABLE 4: SOIL GAS SAMPLE ANALYTICAL DATA

Well ID	Date Collected	Sample Depth (ft bgs)	TPH-g (μg/m3)	MTBE (μg/m3)	Benzene (µg/m3)	Toluene (μg/m3)	Ethyl- benzene (μg/m3)	Xylenes (μg/m3)	Ethanol (μg/m3)	PCE (μg/m3)	2-propanol (μg/m3)
GP-1-5	08/04/06	5	331	<8.0	<7.1	<8.4	< 9.7	< 9.7	<17	17	23
GP-1-5D ₁	08/04/06	5	-	<8.0	<7.1	<8.4	<9.7	<9.7	<17	18	23
GP-1-5	11/08/06	5	1,100	<4.6	<4.0	<4.8	<5.5	<5.5	<9.5	12	<12
GP-1-5	03/06/07*	5	-	-	-	-	-	-	-	-	-
GP-1-5	05/17/07	5	457	< 3.6	< 3.2	< 3.8	<4.4	<4.4	<7.6	14	<9.9
GP-1-5D ₁	05/17/07	5	-	< 3.6	< 3.2	< 3.8	<4.4	<4.4	< 7.6	14	< 9.9
GP-1-5	12/12/07	5	<1,500	<48	< 6.5	<7.7	<8.8	<27	<96	<14	<25
GP-1-5	02/14/08	5	<1,800	<48	< 6.5	<7.7	<8.8	<27	<96	<14	<10,000
GP-1-5	05/08/08	5	<1,800	<7.3	< 6.5	<7.7	<8.8	<27	-	<14	<25
GP-1-5	08/15/08	5	<1800	<7.3	< 6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-1-5 ²	11/07/08	5	-	-	-	-	-	-	-	-	-
GP-1-10	08/04/06	10	493	<4.1	<3.6	<4.3	<5.0	< 5.0	<8.6	20	<11
GP-1-10	11/08/06	10	950	<4.2	<3.7	<4.4	< 5.0	< 5.0	<8.8	<7.9	<11
GP-1-10	03/06/07*	10	-	-	-	-	-	-	-	-	-
GP-1-10	05/17/07^	10	-	-	-	-	-	-	-	-	-
GP-1-10	12/12/07	10	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-1-10	02/14/08	10	<1,800	<48	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-1-10	05/08/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-1-10	08/15/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	- 	<14	<10,000
GP-1-10 ²	11/07/08	10	-	-	-	-	-	-	-	-	-
GP-2-5	08/04/06	5	493	<4.4	<3.9	6.9	< 5.4	10	<9.3	600	<12
GP-2-5	11/08/06	5	1,100	<4.0	< 3.6	<4.2	<4.9	<4.9	<8.4	240	<11
GP-2-5	03/06/07*	5	-	-	-	-	-	-	-	-	-
GP-2-5	05/17/07	5	582	<4.0	<3.5	<4.1	<4.8	<4.8	<8.3	420	<11
GP-2-5	12/12/07	5	<1,500	<48	< 6.5	<7.7	<8.8	<27	<96	<14	<25
GP-2-5	02/14/08	5	<1,800	<48	<6.5	<7.7	<8.8	<27	<14	<14	<10,000
GP-2-5	05/08/08	5	<1,800	<7.3	< 6.5	<7.7	<8.8	<27	-	<14	<25
GP-2-5	08/15/08	5	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	39	<10,000
GP-2-5 ²	11/07/08	5	-	-	-	-	-	-	-	-	-
GP-2-10	08/04/06	10	352	<10	<9.0	18	<12	<12	<21	270	<28
GP-2-10	11/08/06	10	910	<3.9	<3.4	<4.1	<4.7	<4.7	<8.1	450	<11
GP-2-10	03/06/07*	10	-	-	-	-	- 	-	-	-	-
GP-2-10	05/17/07	10	748	<3.8	<3.3	<3.9	<4.5	<4.5	<7.9	440	<10
GP-2-10	12/12/07	10	<1500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-2-10	02/14/08	10	<1800	<48	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-2-10	05/08/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-2-10	08/15/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	48	<10,000
GP-2-10 ²	11/07/08	10	-	-	-	-	-	-	-	-	-

TABLE 4: SOIL GAS SAMPLE ANALYTICAL DATA

Well ID	Date Collected	Sample Depth (ft bgs)	TPH-g (μg/m3)	MTBE (μg/m3)	Benzene (µg/m3)	Toluene (μg/m3)	Ethyl- benzene (μg/m3)	Xylenes (μg/m3)	Ethanol (μg/m3)	PCE (μg/m3)	2-propanol (μg/m3)
GP-3-5	08/04/06	5	<240	<4.2	<3.7	<4.4	< 5.0	< 5.0	<8.8	<7.9	<11
GP-3-5	11/08/06	5	930	<4.4	< 3.9	<4.6	< 5.2	< 5.2	<9.1	<8.2	<12
GP-3-5	03/06/07*	5	-	-	-	-	-	-	-	-	-
GP-3-5	05/17/07	5	582	<4.0	< 3.5	<4.1	<4.8	<4.8	17	<7.5	<11
$GP-3-5D_f$	05/17/07	5	582	<4.0	< 3.5	<4.1	<4.8	<4.8	<8.3	16	<11
GP-3-5	12/12/07	5	<1500	<48	< 6.5	<7.7	<8.8	<27	<96	<14	<25
GP-3-5	02/14/08	5	<1800	<48	< 6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-3-5	05/08/08	5	<1,800	<7.3	< 6.5	<7.7	<8.8	<27	-	<14	<25
GP-3-5	08/15/08	5	<1,800	<7.3	< 6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-3-5 ^{1,2}	11/07/08	5	-	-	-	-	-	-	-	-	-
GP-3-10	08/04/06	10	564	<4.2	<3.7	<4.4	< 5.0	< 5.0	<8.8	<7.9	<11
GP-3-10	11/08/06	10	1,800	<4.0	<3.6	<4.2	<4.9	<4.9	<8.4	<7.6	<11
GP-3-10	03/06/07*	10	-,500	-	-	-	-	-	-	-	-
GP-3-10	05/17/07	10	1,538	<4.1	<3.6	<4.3	< 5.0	< 5.0	18	<7.8	12
GP-3-10	12/12/07	10	<1500	<48	<6.5	<7.7	<8.8	<27	<96	<14	-
GP-3-10	02/14/08	10	<1800	<48	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-3-10	05/08/08	10	<1,800	<7.3	< 6.5	<7.7	<8.8	<27	-	<14	<25
GP-3-10	08/15/08	10	<1,800	<7.3	< 6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-3-10 ^{1,2}	11/07/08	10	-	-	-	-	-	-	-	-	-
GP-4-5	08/04/06	5	705	<4.4	5.4	<4.6	<5.4	<5.4	<9.3	<8.4	<12
GP-4-5D ₁	08/04/06	5	599	-	-	-	-	-	-	-	-
GP-4-5	11/08/06	5	540	<4	< 3.5	<4.1	<4.8	<4.8	<8.3	<7.5	<11
$GP-4-5D_f$	11/08/06	5	610	<7.7	<6.8	<8.0	<9.2	<9.2	<16	<14	<21
GP-4-5	03/06/07*	5	-	-	-	-	-	-	-	-	-
GP-4-5	05/17/07	5	873	<4	< 3.6	<4.2	<4.9	<4.9	15	<7.6	<11
GP-4-5	12/12/07	5	<1500	<48	< 6.5	<7.7	<8.8	<27	<96	<14	<25
$GP-4-5D_f$	12/12/07	5	<1500	<48	< 6.5	<7.7	<8.8	<27	<96	<14	<25
GP-4-5	02/14/08	5	<1800	<48	< 6.5	<7.7	<8.8	<27	<96	<14	<10,000
GP-4-5	05/08/08	5	<1,800	<7.3	< 6.5	<7.7	<8.8	<27	-	<14	<25
GP-4-5	08/15/08	5	<1,800	<7.3	< 6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-4-5 ^{1,2}	11/07/08	5	-	-	-	-	-	-	-	-	-
GP-4-10	08/04/06	10	564	<4.1	6.1	17	5.7	16	12	<7.8	<11
$GP-4-10D_{\mathrm{f}}$	08/05/06	10	529	<3.8	4.2	18	<4.6	17	18	<7.2	<10
GP-4-10	11/08/06	10	900	<4.0	<3.5	4.1	<4.8	5.2	<8.3	<7.5	<11
GP-4-10D ₁	11/08/06	10	880	<1.8	<1.6	<1.9	<2.2	<2.2	<3.8	<3.4	<4.9
GP-4-10	03/06/07*	10	-	-	-	-	-	-	-	-	-
GP-4-10	05/17/07^	10	-	-	-	-	-	-	-	-	-
GP-4-10	12/12/07	10	1,600	<48	< 6.5	<7.7	<8.8	<27	<96	<14	<25
GP-4-10	02/14/08	10	-	-	-	-	-	-	-	-	-
GP-4-10	05/08/08	10	<1,800	<7.3	< 6.5	<7.7	<8.8	<27	-	<14	<25
GP-4-10	08/15/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-4-10 ^{1,2}	11/07/08	10	-	-	-	-	-	-	-	-	-
ESLs			26,000	9,400	85	63,000	420,000	150,000	1.9E+07	410	-
CHHSLs		!	-	4,000	36.2	135,000	pp	315,000	<u> </u>	180	! -

TABLE 4: SOIL GAS SAMPLE ANALYTICAL DATA

Vic's Auto, 245 8th Street, Oakland, California

Well ID	Date Collected	Sample Depth (ft bgs)	TPH-g (μg/m3)	MTBE (μg/m3)	Benzene (μg/m3)	Toluene (μg/m3)	Ethyl- benzene (µg/m3)	Xylenes (μg/m3)	Ethanol (μg/m3)	PCE (μg/m3)	2-propanol (μg/m3)
---------	-------------------	-----------------------------	------------------	-----------------	--------------------	--------------------	------------------------------	--------------------	--------------------	----------------	-----------------------

NOTES:

- not sampled/analyzed

2-propanol (i.e., isopropyl alcohol) tracer/leak check compound

ft bgs = feet below ground surface

 μ g/m3 = micrograms per cubic meter

TPH-g = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

PCE = tetrachloroethene

 $ESLs = Environmental \ Screening \ Levels \ \text{- for residential land use}$

CHHSLs = California Human Health Screening Levels

pp = CHHSL postponed

* = Sampling not possible due to seasonal wet soil conditions

 $^{\wedge}$ = No sample analysis due to presence of free moisture in sample tubing

D_f = after the probe/sample ID indicates a duplicate sample collected in the field

 D_l = after the probe/sample ID indicates a duplicate sample prepared and analyzed by the lab

- 1) On August 21, 2008, GP-3 and GP-4 were decommissioned during the installation of the HVDPE conveyance piping laterals
- 2) Per concurrence from ACHCSA in a letter dated October 3, 2008, quarterly soil gas sampling has been temporarily suspended during operation of the HVDPE system
- 3)
- 4)
- 5)

TPH-g by modified EPA Method TO-3 BTEX, MTBE, Ethanol, PCE, 2-propanol by modified EPA Method TO-15

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	TVH (ppmv)	CH4 (%)	O2 (%)	CO2 (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Xylenes (ppmv)
MW-1S	08/10/07		100%	OFF	21	-	-	-	-	3,400	ND<14	68	210	30	160
	09/28/07	1,2	OFF	OFF	20	-	-	-	-	-	- 1	-	-	-	-
	10/17/07		100%	100%	21	0	0.0	20.9	0.0	380	ND<14	26	58	5.7	46
	11/16/07		50%	50%	21	2,800	0.5	20.7	0.5	3,200	ND<14	69	220	20	110
	12/26/07		50%	50%	18	3,000	1.5	20.7	0.4	3,900	ND<27	79	210	41	210
	01/22/08		100%	OFF	18	160	0.0	19.7	0.3	660	ND<14	5.8	23	2.7	28
	02/07/08	4	OFF	OFF	21.5	0	0.0	20.9	0.0	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	0	XX	20.9	0.0	140	ND<0.68	1.3	6.9	0.78	6.9
	04/30/08		OFF	OFF	18	50	0	20.9	0.1	520	3.3	13	38	6.7	53
	05/29/08		OFF	OFF	19.5	-	-	-	-	-	-	-	-	-	-
	06/26/08	_	OFF	OFF	23	-	-	-	-	-	-	-	-	-	-
	07/30/08	7	OFF	OFF	17	310	0	18.3	1.1	-	-	-	-	-	-
	09/30/08		OFF	100%	16.5	5	0	20.9	0.4	65	0.71	0.44	2.2	0.65	12
	11/04/08		100% 100%	100% 100%	13 10	4,250 2,710	1.5 0.5	12.6 20.3	2.9 0.9	3,100	ND<180 ND<14	63 57	140	14 12	120
	12/02/08		100%	100%	10	2,710	0.3	20.3	0.9	3,300	ND<14	5/	150	12	110
MW-2S	08/10/07		100%	100%	21	-	-	-	-	11,000	ND<110	280	770	81	360
	09/28/07	1	100%	100%	20	5,900	2.5	20.6	0.4	5,100	ND<35	110	310	46	260
	10/17/07		100%	100%	21	1,450	1.0	20.9	0.1	1,900	ND<20	59	120	12	73
	11/16/07		100%	100%	21	4,600	2.5	20.7	0.5	5,800	ND<27	120	340	40	200
	12/26/07		100%	100%	18	2,600	1.5	20.9	0.4	3,100	ND<27	84	230	37	190
	01/22/08		100%	100%	18	1,000	0.5	17.7	0.6	3,000	ND<14	61	190	24	180
	02/07/08	5	100%	100%	21.5	1,000	0.5	20.9	0.2	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	100	XX	20.9	0.6	1,400	2.3	17	51	13	81
	04/30/08		100%	OFF	18	190	0	20.7	0.5	1,900	ND<6.8	22	75	16	110
	05/29/08		OFF	OFF	19.5	-	-	-	-	-	-	-	-	-	-
	06/26/08		OFF	OFF	23	-	-	-	-	-	- 1	-	-	-	-
	07/30/08	7	OFF	OFF	17	100	0.0	20.3	0.6	-	-	-	-	-	-
	09/30/08		OFF	100%	16.5	160	0.0	16.7	1.8	220	ND<0.068	0.44	3.1	1.0	17
	11/04/08		100%	100%	13	6,800	1.5	11.8	3.1	3,800	ND<14	78	170	18	150
	12/02/08		100%	100%	10	3,200	0.5	18.3	0.9	3,200	ND<14	66	170	14	130

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	TVH (ppmv)	CH4 (%)	O2 (%)	CO2 (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Xylenes (ppmv)
MW-5S	08/10/07		100%	100%	21	-	-	-	-	54	ND<0.68	0.60	2.7	0.60	3.7
	09/28/07	1	100%	100%	20	8,000	5.5	20.2	0.3	3,800	ND<60	70	150	19	120
	10/17/07		100%	100%	21	880	0.5	20.9	0.1	1,100	ND<14	27	56	5.3	36
	11/16/07		100%	100%	21	4,600	3.0	20.0	0.7	3,800	ND<110	64	170	21	170
	12/26/07		OFF	OFF	18	200	0.0	20.9	0.0	140	ND<0.68	0.45	3.7	1.5	14
	01/22/08		100%	100%	18	300	0.0	18.0	0.4	760	ND<4.5	3.3	16	2.4	28
	02/07/08	4	OFF	OFF	21.5	-	-	-	-	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	0	XX	19.9	0.3	580	ND<2.7	3	24	4.2	39
	04/30/08		OFF	OFF	18	0	0.0	19.4	1.0	2,000	ND<10	18	56	5.7	63
	05/29/08		OFF	OFF	19.5	-	-	-	-	-	-	-	-	-	-
	06/26/08		OFF	OFF	23	-	-	-	-	-	-	-	-	-	-
	07/30/08	7	OFF	50%	17	1,000	0.0	14.0	2.8	-	-	-	-	-	-
	09/30/08		OFF	100%	16.5	1,850	0.0	16.0	2.8	2,000	ND<14	27	61	6.2	87
	11/04/08		100%	100%	13	2,450	0.5	14.6	2.3	3,900	ND<27	30	100	6.1	150
	12/02/08		100%	100%	10	1,810	0.0	19.7	0.1	1,900	ND<27	ND<3.1	29	2.9	81
MW-6S	08/10/07		100%	100%	21	-	-	-	-	5,800	ND<30	69	280	24	140
	09/28/07	1	100%	100%	20	>11,000	8.0	19.7	0.5	6,800	ND<60	100	360	34	190
	10/17/07		100%	100%	21	1,350	0.5	20.9	0.1	1,700	ND<10	24	90	9.7	79
	11/16/07		100%	50%	21	6,300	4.5	19.2	1.0	6,400	ND<27	56	270	40	310
	12/26/07		100%	100%	18	4,600	2.5	18.5	1.3	4,200	ND<27	21	96	14	180
	01/22/08		50%	100%	18	1,050	0.5	15.6	1.0	1,900	ND<14	11	74	13	100
	02/07/08		-	-	21.5	-	-	-	-	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	15	xx	20.5	0.1	230	ND<1.4	1.2	9.2	2.4	16
	04/30/08		100%	100%	18	140	0.0	20.7	0.7	760	ND<6.8	3.5	18	3.2	36
	05/29/08		OFF	OFF	19.5	-	-	-	-	-	-	-	-	-	-
	06/26/08		OFF	100%	23	210	0.0	19.8	0.4	400	ND<10	2	18	3.1	24
	07/30/08	7	100%	100%	17	270	0.0	20.2	0.7	460	ND<4.5	1.7	14	2.2	19
	09/30/08		OFF	100%	16.5	570	0.0	17.4	2.0	640	ND<14	7.7	42	3.7	31
	11/04/07		100%	100%	13	580	0.0	17.4	1.2	900	ND<2.7	4.6	21	4.6	46
	12/02/08		100%	100%	10	460	0.0	20.6	0.3	710	ND<14	3.2	13	1.4	30

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	TVH (ppmv)	CH4 (%)	O2 (%)	CO2 (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Xylenes (ppmv)
MW-7S	08/10/07				21	-	-	-	-	19,000	ND<450	620	590	27	100
	09/28/07	1	100%	100%	20	11,000	19	20.0	0.5	13,000	ND<150	350	630	69	370
	10/17/07		100%	100%	21	0	0.0	20.9	0.0	390	ND<14	27	60	6	51
	11/16/07		100%	50%	21	10,000	8.0	20.5	0.4	7,700	ND<45	170	390	47	280
	12/26/07		100%	100%	18	5,500	3.0	20.4	0.5	4,700	ND<45	100	220	27	190
	01/22/08		100%	100%	18	2,050	1.0	18.2	0.4	3,900	ND<14	69	200	20	210
	02/07/08		-	-	21.5	-	-	-	-	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	390	XX	20.2	0.3	2,000	ND<5.0	25	81	11	78
	04/30/08		100%	100%	18	600	1.0	19.0	1.2	4,100	ND<14	66	150	15	150
	05/29/08		OFF	OFF	19.5	-	-	-		-	-	-	-	-	-
	06/26/08	_	OFF	100%	23	5,200	1.5	15.8	2.7	4,800	ND<30	56	71	4	110
	07/30/08	7	100%	100%	17	2,750	0.5	18.3	1.7	-	-	-	-	-	-
	09/30/08		OFF	100%	16.5	4,200	1.0	12.6	5.9	2,800	ND<30	57	72	4.2	110
	11/04/08		100%	100%	13	9,100	1.5 0.5	7.5	3.5	4,100	ND<14	53	87	4.3	130
	12/02/08		100%	100%	10	4,350	0.5	19.5	1.1	3,900	ND<27	44	89	4.1	110
MW-10S	11/21/07		100%	100%	19	>44,000	43.0	17.0	2.2	28,000	ND<68	300	800	63	230
W1W-105	12/26/07		100%	100%	19	3,900	2.5	17.0	0.5	6,300	ND<08 ND<14	55	350	64	300
	01/22/08		100%	100%	16.5	1,850	0.5	16.1	0.5	4,700	ND<14 ND<14	38	230	49	310
	02/07/08		10070	10070	-	-	-	-	0.5	-	- ND<14	-	-	- -	- 510
	03/18/08		100%	100%	14.5	270	XX	19.0	0.9	2,100	ND<14	13	73	31	190
	04/30/08		100%	100%	18	310	0.5	19.6	0.9	2,500	ND<14	11	76	33	230
	05/29/08		100%	100%	18	1,750	0.0	19.6	0.8	1,800	ND<6.8	13	47	17	120
	06/26/08		100%	100%	23	370	0.0	20.7	0.1	780	ND<1.4	4.1	15	4.9	38
	07/30/08	7	100%	100%	17	1,050	0.0	20.3	0.8	1,600	ND<14	16	50	9.5	95
	09/30/08		100%	0%	16.5	640	0.0	20.9	0.4	690	ND<4.0	10	29	5.1	53
	11/04/08		0%	100%	13	1,900	0.5	13.0	2.5	2,300	ND<14	36	89	8.1	120
	12/02/08		100%	100%	10	1,550	0.0	20.3	0.6	1,500	ND<14	26	73	8.4	71
	·		Ì			ŕ				,					

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	TVH (ppmv)	CH4 (%)	O2 (%)	CO2 (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Xylenes (ppmv)
MW-11S	11/21/07		100%	100%	19	36,600	26.5	19.2	2.2	20,000	ND<68	240	640	63	240
	12/26/07		50%	100%	18	1,350	0.5	20.9	0.2	3,400	ND<75	50	220	50	230
	01/22/08		100%	100%	16.5	1,000	0.0	19.3	0.2	3,000	ND<30	81	190	39	230
	02/07/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	130	XX	20.0	0.3	1,700	ND<14	26	66	26	150
	04/30/08		100%	100%	18	120	0.0	20.9	0.2	600	ND<5.0	6.7	23	5.9	49
	05/29/08		100%	100%	18	950	0.0	20.9	0.3	1,800	ND<30	24	47	18	120
	06/26/08	_	100%	100%	23	480	0.0	20.9	0.1	940	ND<15	12	28	8.4	57
	07/30/08	7	100%	100%	17	980	0.0	20.9	0.3	1,600	ND<30	22	50	13	100
	09/30/08		100%	0%	16.5	510 360	0.0	20.9 16.5	0.2	490	ND<10	11	22	3.8	40 57
	11/04/08 12/02/08		0% 100%	100%	13 10	320	0.0 0.0	20.9	1.4 0.2	820	ND<20	22	21 57	5.2 6.3	57 73
	12/02/08		100%	100%	10	320	0.0	20.9	0.2	1,400	ND<35	23	5/	0.3	13
MW-12S	11/21/07		50%	50%	19	110	0.0	20.9	0.7	1,400	ND<100	87	51	10	40
11111-125	12/26/07		50%	50%	18	720	0.0	20.9	0.1	1,200	ND<45	27	100	13	74
	01/22/08		100%	100%	16.5	630	0.0	19.3	0.2	1,100	ND<45	14	50	8.4	65
	02/07/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	0	xx	20.9	0.0	460	ND<30	42	32	4.2	36
	04/30/08		100%	100%	18	65	0.0	20.9	0.2	390	5	8.8	17	3.9	30
	05/29/08		100%	100%	18	150	0.0	20.9	0.3	490	ND<10	14	23	4.4	30
	06/26/08	_	100%	100%	23	140	0.0	20.9	0.1	300	4.1	5.1	14	2.6	22
	07/30/08	7	100%	100%	17	240 190	0.0	20.9 20.9	0.3 0.2	450	ND<5.0	4.5	20	3.8	32 28
	09/30/08 11/04/08		100% 0%	0% 100%	16.5 13	190 140	0.0 0.0	20.9 18	0.2	230 260	ND<5.0 ND<5.0	3.9 6.5	12 7.4	2.2 1.2	28 14
	12/02/08		100%	100%	10	150	0.0	20.5	0.6	660	ND<5.0 ND<5.0	7.3	29	4.5	66
AS	10/17/07		100%	100%	-	0	0.0	20.9	0.0	130	ND<1.4	4.3	11	1.4	12
	11/08/07		100%	100%	-	0	0.0	20.9	0.0	19	ND<0.68	0.60	1.8	0.18	3.2
	01/15/08		100%	100%	-	-	-	-	-	1,100	19	31	100	17	180
	01/31/08		100%	100%	-	-	-	-	-	69	ND<4.5	1.7	5.0	0.81	11
	02/07/08		100%	100%	-	0	0.0	20.9	0.0	31	1.4	0.47	1.5	0.21	4.1
	03/18/08		100%	100%	-	-	-	-	-	31	0.71	0.60	1.8	0.34	3.2
	04/30/08		100%	100%	-	10	0.0	20.9	0.0	37	ND<0.68	0.36	1.4	0.34	4.1
	05/29/08		100%	100%	-	60	0.0	20.9	0.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	0.16
	06/26/08	-	100%	100%	-	10	0.0	20.9	0.0	44	0.97	0.89	2.5	0.54	6.3
	07/30/08	7	100%	100%	-	0	0.0	20.9	0.0	41	ND<1.4	0.81	2.2	0.20	4.2
	09/30/08		100%	100%	-	0 0	0.0	20.9 20.9	0.0	21	- ND -0 -0	0.20	- 0.01	- 0.12	2.6
	11/04/08		100% 100%	100% 100%	-	0	0.0 0.0	20.9	0.1 0.1	21	ND<0.68	0.38 ND <0.077	0.91 0.22	0.13 ND <0.057	2.6
	12/02/09		100%	100%	-	U	v. 0	20.9	V.1	10	ND<0.68	ND<0.077	U.22	ND<0.057	0.79

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	TVH (ppmv)	CH4 (%)	O2 (%)	CO2 (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Xylenes (ppmv)
PRED	06/28/07		-	-	18.5	-	-	-	-	-	-	-	-	-	-
	07/11/07		-	-	21.5	10,750	-	-	-	6,600	ND<90	180	340	39	190
	07/27/07		-	-	20	>11,000	-	-	-	11,000	ND<75	170	330	38	160
	08/01/07		-	-	19	6,000	9.1	18.5	1.1	5,500	ND<70	140	250	16	71
	08/10/07		-	-	21	-	-	-	-	7,700	ND<90	210	410	41	190
	09/28/07	1	-	-	20	5,700	3.5	20.7	0.3	4,000	ND<50	90	170	9.3	42
	10/17/07		-	-	21	9,050	-	-	-	5,100	ND<60	130	210	8.6	51
	11/08/07		-	<u> </u>	21	0	0.0	20.9	0.0	4,000	ND<0.68	0.35	2.2	0.68	6.6
	11/16/07		-	-	21	3,050	2.0	20.7	0.4	3,700	ND<120	63	170	20	120
	11/16/07		-	-	21	6,100	4.5	20.3	0.7	6,000	ND<27	100	250	27	170
	11/21/07		-	-	19	12,000	13.5	19.4	1.2	2,500	ND<14	39	120	16	79
	12/04/07		-	-	20	10,500	9.5	18.8	0.9	7,900	ND<32	120	340	48	280
	12/26/07		-	-	18	3,650	2.0	20.9	0.5	4,100	ND<27	72	250	42	270
	01/08/08	3	-	-	18	-	-	-	-	-	-	-	-	-	-
	01/15/08		-	-	19	710	0.0	20.0	0.3	1,900	ND<14	29	89	16	100
	01/22/08		-	-	18	800	0.0	17.8	0.5	1,900	ND<14	34	100	13	100
	01/31/08		-	-	21	1,250	0.5	20.9	0.5	2,200	ND<14	36	120	19	160
	02/07/08		-	-	21.5	700	0.0	20.9	0.4	2,000	ND<35	34	110	10	130
	03/18/08		-	-	14.5	160	XX	15.3	0.9	630	ND<3.0	7.0	25	5.6	38
	04/30/08		-	-	18	280	0.5	20.2	0.0	2,100	ND<5.0	20	63	16	120
	05/29/08		-	-	19.5	1,500	0.0	19.6	0.8	2,100	ND<10	21	45	18	120
	06/26/08		-	-	23	280	0.5	20.2	0.0	860	ND<5.0	11	27	6.5	50
	07/30/08	7	-	-	17	1,350	0.0	19.3	1.1	2,200	ND<6.8	24	62	10	90
	09/30/08		-	-	16.5	1,650	0.5	16.1	1.8	1,100	ND<10	20	42	8.2	78
	11/04/08		-	-	13	2,500	0.5	16.1	1.8	2,700	ND<10	31	77	9.3	130
	12/02/08		=	-	10	1,100	0.0	20.5	0.6	2,200	ND<5.0	27	80	8.7	130

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	TVH (ppmv)	CH4 (%)	O2 (%)	CO2 (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Xylenes (ppmv)
POSTD	06/28/07		-	-	-	10,000	6.5	18.2	1.4	3,800	ND<60	120	160	22	110
	07/11/07		-	-	-	3,550	-	-	-	1,400	ND<14	36	82	12	67
	07/27/07		-	-	. I	4,550	-	-	-	3,400	ND<14	56	120	15	70
	08/01/07		-	-	-	5,200	-	-	-	2,500	ND<27	59	140	17	95
	08/10/07		-	-	! -	4,800	2.0	19.9	0.5	5,300	ND<45	130	290	37	180
	09/28/07		-	-	-	6,750	4.0	20.7	0.3	4,800	ND<60	100	210	23	120
	10/17/07		-	-	-	4,500	2.5	20.9	0.0	1,800	ND<14	41	110	14	100
	11/08/07		-	<u> </u>	. I	1,300	1.0	20.9	0.4	2,000	ND<15	42	100	12	88
	11/16/07		-	-	-	4,150	2.0	20.5	0.4	3,600	ND<14	58	190	25	180
	11/21/07		-	-		8,600	7.5	20.5	0.8	5,500	ND<25	75	210	28	130
	12/04/07		-	-	-	6,500	5.0	19.8	0.6	3,400	ND<16	44	120	22	120
	12/26/07		-	-	-	2,000	1.0	20.9	0.3	1,300	ND<45	26	96	15	100
	01/08/08		-	-	i -	1,200	0.5	20.9	0.3	1,700	ND<14	23	79	13	83
	01/15/08		-	-	-	45	0.0	20.7	0.0	620	ND<14	11	39	6.6	44
	01/22/08		-	-	-	280	0.0	20.2	0.0	1,100	ND<14	14	50	8.4	65
	01/31/08		-	-	-	470	0.0	20.9	0.1	770	ND<14	12	38	6.9	62
	02/07/08		-	-	-	120	0.0	20.9	0.0	690	ND<6.8	10	37	6.6	58
	03/18/08		-	-	-	75	XX	20.2	0.4	310	ND<3.5	3.9	12	3	20
	04/30/08		-	-	-	55	0.0	20.9	0.2	700	ND<2.0	7.6	23	5	42
	05/29/08		-	-	-	630	0.0	20.7	0.2	500	ND<3.5	5.4	12	4.1	29
	06/26/08		-	-	-	55	0.0	20.9	0.2	620	ND<10	7.8	25	5.4	45
	07/30/08	6,7	-	-	-	-	-	-	-	-	-	-	-	-	-
	09/30/08		-	-	: -	-	-	-	-	-	-	-	-	-	-
	11/04/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	12/02/08		-	-	-	-	-	-	-	-	-	-	-	-	-

Sample Port ID	Sample Date	Notes	Initial Valve Position	Final Valve Position	Manifold Vacuum (in-Hg)	TVH (ppmv)	CH4 (%)	O2 (%)	CO2 (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Xylenes (ppmv)
STACK	06/28/07		-	-	-	0	0.0	12.3	5.4	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	07/27/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	08/10/07		-	-	-	-	-	-	-	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	09/28/07		-	-	-	0	0.0	14.0	4.5	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	10/17/07		-		-	-	-	-	-	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	11/08/07		-	-	-	-	-	-	-	21	ND<0.68	0.24	1.5	0.29	2.4
	11/16/07		-	-	-	0	0.0	14.8	4.8	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	12/26/07		-	-	-	-	-	-	-	-	-	-	-	-	-
	01/18/08		-	-	-	-	-	-	-	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	02/07/08		-	-	-	0	0.0	19.0	1.7	-	-	-	-	-	-
	03/18/08		-	-	-	0	XX	18.0	1.9	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	04/30/08		-	-	-	0	0.0	17.7	2.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	05/29/08		-	-	-	0	0.0	17.7	2.5	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	06/26/08		-	-	-	0	0.0	17.9	1.9	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	07/30/08	7	-	-	-	0	0.0	17.0	1.8	27	ND<0.68	0.09	0.64	0.16	2.1
	09/30/08		-	-	-	0	0.0	16.1	2.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	11/04/08		-	-	-	0	0.0	15.7	2.9	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	12/02/08		-	-	-	0	0.0	17.7	2.3	52	ND<0.68	0.19	1.5	0.34	4.4
DL				<u> </u>		5.0	0.1	0.1	0.1	7.0	0.68	0.077	0.065	0.057	0.057

Vic's Auto, 245 8th Street, Oakland, California

Sample Port ID	Sample Date	Notes	Initial Valve Position	Valve	Manifold Vacuum (in-Hg)	TVH	CH4 (%)	O2 (%)	CO2 (%)	TPH-g (ppmv)	MTBE (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Xylenes (ppmv)
-------------------	----------------	-------	------------------------------	-------	-------------------------------	-----	------------	-----------	------------	-----------------	----------------	-------------------	-------------------	-----------------------------	-------------------

NOTES:

TPH-g = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

in-Hg = inches of mercury

ppmv = parts per million by volume

% = percent concentration by volume

PRED = pre-dilution sample port at combined inlet

POSTD = post-dilution sample part at thermal/catalytic oxidizer inlet

- not sampled/analyzed

- 1) Individual well water seperator trap used for the 1st time.
- 2) Vacuum leak detected at wellhead due to broken wellhead seal.
- 3) Pump failed, not strong enough to collect sample from PRED @ 18 in-Hg.
- 4) Opened 100% for field screening, turned OFF after screening, no lab sample collected.
- 5) Opened 100% for field screening, no lab sample collected.
- 6) Discontinued POSTD process sampling port starting in the 3rd Quarter, 2008 because it no longer provides any additional useful information.
- 7) HVDPE system shutdown most of the month of August for quarterly soil gas monitoring and pending repair of the rotary phase converter.
- 8)
- 9)
- 10)

xx = methane sensor damaged; pending replacement
TVH = total volatile hydrocarbons (calibrated w/ hexane)
CH4 = methane by infrared detection (0 to 100% by volume)
O2 = oxygen by electrochemical detection (0-40% by volume)
CO2 = carbon dioxide by infrared detection (0 to 20% by volume)
TVH, CH4, O2, and CO2 measured RKI Eagle gas detector

DL = detection limit for dilution factor of 1 TPH-g by EPA Method 8015C BTEX & MTBE by EPA Method 8021B

TABLE 6: GROUNDWATER TREATMENT SYSTEM SAMPLE ANALYTICAL DATA

Sample ID	Sample Date	Notes	TOG (mg/L)	TPH-g (µg/L)	MTBE (μg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)
INF	06/26/07	1	-	20,000	<1500	1,400	2,300	350	3,000
	06/27/07		-	25,000	1,300	2,300	3,400	490	3,100
	06/28/07		-	28,000	1,500	2,300	4,800	540	3,300
	07/12/07		-	8,300	150	660	1,500	120	1,300
	08/22/07	2	-	16,000	130	610	2,000	300	2,400
	10/17/07	3,4	-	25,000	<250	990	3,000	380	3,600
	11/07/07		-	21,000	<500	730	2,600	300	4,800
	12/12/07	5	-	75,000	<250	1,200	9,900	1,700	12,000
	01/08/08		-	12,000	320	260	1,100	170	2,900
	03/18/08	!!!	-	4,100	480	150	240	52 20	520
	04/01/08 04/30/08	! !	-	2,400 8,600	60 170	37 150	140 630	20	390
	04/30/08	į į	-	13,000	310	130	470	160 170	2,200 1,800
	05/29/08		-	7,600	260	130	360	82	1,300
	00/20/08		_	9,400	220	160	510	62 60	1,100
	09/30/08		_	6,100	270	240	370	49	780
	11/04/08			9,400	380	320	800	110	1,800
	12/02/08			8,300	150	140	460	60	1,700
POST-AS	06/26/07 06/27/07 06/28/07 07/12/07 08/22/07 10/17/07 11/07/07 12/12/07 01/08/08 03/18/08 04/01/08 04/30/08 05/29/08 06/26/08 07/30/08 09/30/08 11/04/08 12/02/08	2 3,4 5	- - - - - - - - - - - -	1,000 420 6,400 - 5,300 84 120 65,000 130 120 140 <50 100 70 130 94 < 50	92 45 570 - 100 12 41 <250 55 190 <5.0 11 20 27 16 15 27 6.3	19 7.8 610 - 610 0.90 0.71 210 0.85 2.5 5.6 0.56 <0.5 <0.5 1.1 0.85 <0.5 <0.5	34 13 890 - 2,000 2.6 1.9 3,400 2.8 3.5 0.60 <0.5 <0.5 1.1 3.3 1.6 <0.5 <0.5	6.8 2.1 59 - 300 <0.5 <0.5 1,300 <0.5 0.77 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	48 22 750 - 2,400 7 12 11,000 12 7.2 1.7 1.1 6.7 6.3 10 5 <0.5 1.5
POST-C1	06/26/07 08/22/07 10/17/07	1 2 3,4	- - -	<50 <50 <50	<5.0 <5.0 <5.0	<0.5 <0.5 <0.5	<0.5 <0.5 <0.5	<0.5 <0.5 <0.5	<0.5 <0.5 <0.5

TABLE 6: GROUNDWATER TREATMENT SYSTEM SAMPLE ANALYTICAL DATA

Vic's Auto, 245 8th Street, Oakland, California

Sample ID	Sample Date	Notes	TOG (mg/L)	TPH-g (µg/L)	MTBE (μg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)
EFF	06/26/07	1	< 5.0	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5
	08/22/07	2	-	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5
	10/17/07	3,4	-	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5
	11/07/07		-	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5
	12/12/07	5	-	< 50	17	< 0.5	< 0.5	< 0.5	< 0.5
	01/08/08		-	< 50	17	< 0.5	< 0.5	< 0.5	< 0.5
	03/18/08	6	< 5.0	< 50	50	< 0.5	< 0.5	< 0.5	< 0.5
	04/01/08		-	i 	-	-	-	-	-
	04/30/08		< 5.0	< 50	30	< 0.5	< 0.5	< 0.5	< 0.5
	05/29/08		-	< 50	27	< 0.5	< 0.5	< 0.5	< 0.5
	06/26/08		-	< 50	37	< 0.5	< 0.5	< 0.5	< 0.5
	07/30/08		-	< 50	30	< 0.5	< 0.5	< 0.5	< 0.5
	09/23/08		< 5.0	i -	-	-	-	-	-
	09/30/08		-	< 50	18	< 0.5	< 0.5	< 0.5	< 0.5
	11/04/08		-	< 50	25	<0.5	<0.5	<0.5	< 0.5
	12/02/08		-	<50	17	<0.5	<0.5	<0.5	<0.5
DL	-	_	5.0	50	5.0	0.5	0.5	0.5	0.5

NOTES:

- not sampled/analyzed

 $\mu g/L = micrograms \ per \ liter \ or \ parts \ per \ billion \ (ppb)$

mg/L = milligrams per liter or parts per million (ppm)

TOG = total oil and grease hydrocarbon

TPH-g = total petroleum hydrocarbons as gasoline

 $MTBE = methyl\ tertiary\text{-}butyl\ ether$

DL = detection limit for dilution factor of 1

TOG by EPA Method 1664 HEM-SGT

TPH-g by EPA Method 8015C

BTEX & MTBE by EPA Method 8021B

- 1) System startup and first dischrage to sanitary sewer
- 2) Bag filter (LCO8) pre-filter for sediment rremoval installed and started up on 08/17/07
- 3) 1,000-pound (PV-1000) carbon absorber (up to 75 psig) installed on 10/5/07 and started up on 10/9/07
- 4) 200-pound (ASC-200) carbon absorber (i.e., C-2) taken offline permanently on 10/25/07
- 5) Extraction wells MW-10, MW-11, and MW-12 brought online 11/20/07
- 6) Metal analysis no longer required per email from EBMUD, dated January 31, 2008
- 7)
- 8)
- 9)
- 10)

TABLE 7: SOIL GAS FIELD SCREENING DATA SUMMARY (TVH, CH4, O2, & CO2)

Soil Gas Probe ID	Date	Notes	Vacuum Influence (in-H2O)	Purge Vacuum (in-H2O)	TVH (ppmv)	CH4 (%)	O2 (%)	CO2 (%)
GP-1-5'	05/17/07	4	0.00	-	0.11	0.0	18.0	2.2
	06/12/07		0.00	-	0.0	0.0	18.6	2.4
	08/01/07		0.40	-	0.0	0.0	20.9	0.0
	08/10/07		0.35	-	0.0	0.0	20.9	0.0
	10/05/07		0.00	-	0.0	0.0	20.9	0.3
	11/07/07		0.24	1.50	0.0	0.0	20.9	0.0
	11/21/07		0.84	1.50	0.0	0.0	20.9	0.0
	03/28/08		< 0.10	>50	0.0	XX	20.9	0.0
	04/30/08	5	0.00	<1.00	0.0	0.0	20.9	0.1
	08/15/08		0.00	1.50	0.0	0.0	20.9	0.0
	11/11/08		0.20	1.10	0.0	0.0	20.9	0.0
GP-1-10'	05/17/07	4	0.00	-	-	-	-	-
	06/12/07		0.00	-	0.0	0.0	18.7	2.2
	08/01/07		0.44	-	0.0	0.0	20.9	0.0
	08/10/07		0.38	-	0.0		20.9	0.0
	10/05/07		0.00	-	0.0	0.0	20.9	0.3
	11/07/07		0.27	2.00	0.0	0.0	20.9	0.0
	11/21/07		0.59	1.50	0.0	0.0	20.9	0.0
	03/28/08	1	-	-	-	-	-	-
	04/30/08	5	0.14	<1.00	0.0	0.0	20.9	0.1
	08/15/08		0.00	1.00	0.0	0.0	18.5	0.1
	11/11/08		0.19	1.20	0.0	0.0	20.9	0.0
GP-2-5'	05/17/07	4	0.00	-	0.14	0.0	19.0	1.5
	06/12/07		0.00	-	0.0	0.0	19.0	1.7
	08/01/07		0.00	-	0.0	0.0	20.9	0.3
	08/10/07		0.04	-	0.0	0.0	20.9	0.2
	10/05/07		0.00	-	0.0	0.0	20.9	0.1
	11/07/07		0.08	4.00	0.0	0.0	20.9	0.0
	11/21/07		0.04	1.50	0.0	0.0	20.9	0.0
	03/28/08	1	-	-	-	-	-	-
	04/30/08	5	0.01	2.00	0.0	0.0	20.9	0.0
	08/15/08		0.00	3.00	0.0	0.0	20.9	0.0
	11/11/08		0.07	1.80	0.0	0.0	20.9	0.0
GP-2-10'	05/17/07	4	0.00	-	0.18	0.0	18.0	1.5
	06/12/07	2	0.00	-	-	-	-	-
	08/01/07		0.08	-	0.0	0.0	20.8	0.5
	08/10/07	•	0.00	-	0.0	0.0	20.9	0.2
	10/05/07		0.00	-	0.0	0.0	20.9	0.1
	11/07/07	•	< 0.10	24.0	0.0	0.0	20.9	0.0
	11/21/07		1.70	35.0	0.0		20.9	0.0
	03/28/08	1	-	-	-	-	-	-
	04/30/08	5	3.50	2.00	0.0	0.0	20.9	0.0
	08/15/08		0.00	3.00	0.0	0.0	20.9	0.0
	11/11/08		1.80	2.00	0.0	0.0	20.9	0.0

TABLE 7: SOIL GAS FIELD SCREENING DATA SUMMARY (TVH, CH4, O2, & CO2)

Soil Gas Probe ID	Date	Notes	Vacuum Influence (in-H2O)	Purge Vacuum (in-H2O)	TVH (ppmv)	CH4 (%)	O2 (%)	CO2 (%)
GP-3-5'	05/17/07	4	0.00	-	0.14	0.0	20.0	0.48
	06/12/07		0.00	-	0.0	0.0	20.9	0.4
	08/10/07		0.01	-	0.0	0.0	20.9	0.3
	10/05/07		0.00	-	0.0	0.0	20.9	0.2
	11/07/07	!	< 0.10	1.00	0.0	0.0	20.9	0.2
	11/21/07		0.05	1.00	0.0	0.0	20.9	0.0
	03/28/08		< 0.10	43.0	0.0	XX	20.5	0.1
	04/30/08	5	0.02	<1.00	0.0	0.0	20.9	0.1
	08/15/08		0.00	1.00	0.0	0.0	20.9	0.0
	11/11/08	6,7	-	-	-	-	-	-
GP-3-10'	05/17/07	4	0.00	-	0.37	0.0	2.4	3.4
	06/12/07		0.00	-	0.0	0.0	10.5	1.8
	08/10/07		0.16	-	0.0	0.0	16.8	2.2
	10/05/07		0.00	-	0.0	0.0	20.8	1.2
	11/07/07		0.30	55.0	0.0	0.0	20.9	0.5
	11/21/07		5.20	47.0	0.0	0.0	20.9	0.2
	03/28/08	3	1.00	>150	0.0	XX	20.0	0.0
	04/30/08	5	9.00	110	0.0	0.0	20.9	0.1
	08/15/08		0.00	50.0	-	-	20.9	0.0
	11/11/08	6,7	-	-	-	-	-	-
GP-4-5'	05/17/07	4	0.00	-	0.21	0.0	20.0	0.7
	06/12/07		0.00	-	0.0	0.0	20.8	0.6
	08/10/07		0.02	-	0.0	0.0	20.9	0.4
	10/05/07		0.00	-	0.0	0.0	20.9	0.5
	11/07/07		< 0.10	0.85	0.0	0.0	20.9	0.3
	11/21/07		0.00	0.50	0.0	0.0	20.9	0.0
	03/28/08		< 0.10	47.0	0.0	XX	20.0	0.0
	04/30/08	5	0.02	<1.00	0.0	0.0	20.9	0.2
	08/15/08		0.00	1.00	-	-	20.9	0.0
	11/11/08	6,7	-	-	-	-	-	-
GP-4-10'	05/17/07	4	0.00	-	-	-	-	-
	06/12/07	2	0.00	-	-	-	-	-
	08/10/07		0.08	-	0.0	0.0	20.4	0.2
	10/05/07		0.00	-	0.0	0.0	20.9	0.5
	11/07/07		< 0.1	80.0	0.0	0.0	20.9	0.3
	11/21/07	!	< 0.1	>50.0	0.0	0.0	20.9	0.0
	03/28/08	2,3	< 0.1	>150	0.0	xx	20.5	0.0
	04/30/08	1,5	0.20	>150	-	-	-	-
	08/15/08		0.00	>50.0	-	-	19.0	0.1
	11/11/08	6,7	-	-	-	-	-	-
DL	-	-	varies	varies	5.0	0.1	0.1	0.1

TABLE 7: SOIL GAS FIELD SCREENING DATA SUMMARY (TVH, CH4, O2, & CO2)

Vic's Auto, 245 8th Street, Oakland, California

Soil Gas Probe ID	Date	Notes	Vacuum Influence (in-H2O)	Purge Vacuum (in-H2O)	TVH (ppmv)	CH4 (%)	O2 (%)	CO2 (%)	
----------------------	------	-------	---------------------------------	-----------------------------	---------------	------------	-----------	------------	--

NOTES:

- not sampled/analyzed

in-H20 = inches of water

ppmv = parts per million by volume

% = percent concentration by volume

xx = methane sensor damaged; pending replacement

DL = detection limit for dilution factor of 1

TVH = total volatile hydrocarbons (calibrated w/ hexane)

CH4 = methane

O2 = oxygen

CO2 = carbon dioxide

TVH, CH4, O2, and CO2 measured w/ RKI Eagle gas detector

- 1) Soil gas sample collection not possible due to wet or saturated soil conditions
- 2) Moisture present within the sample tubing
- 3) High purge vacuum may indicate wet or saturated soil conditions
- 4) TPH-g by modified EPA Method TO-3 GC/FID and CH4, O2, and CO2 by modified method ASTM D-1946 GC/FID or GC/TCD
- 5) Soil gas probe screened for TVH, CH4, O2, and CO2 approximaltey one week prior to sampling for vapor intrusion evaluation
- 6) Nested soil gas probes GP-3 and GP-4 were abandoned on August 21, 2008 during the HVDPE conveyance lateral installation
- 7) GP-4 and possibly GP-3 will be re-installed once the construction activities at 708 Alice Street are completed
- 8)
- 9)
- 10)

TABLE 8: WELLHEAD VACUUM & DROP TUBE DEPTH DATA SUMMARY

Vic's Auto, 245 8th Street, Oakland, California

		MW-1			MW-2			MW-5			MW-6			MW-7	
Date	Casing Vacuum (in-Hg)	Stinger Vacuum (in-Hg)	Stinger Depth (ft toc)												
06/26/07	1.5	8.0	15.0	6.0	9.0	15.0	-	OFF	-	5.5	10.0	15.0	6.5	10.0	15.0
06/27/07	2.0	7.0	15.0	5.5	9.0	15.0	-	OFF	-	5.0	9.5	15.0	5.0	9.5	15.0
06/28/07	1.5	8.0	15.0	5.0	10.0	15.0	-	OFF	-	5.0	9.0	15.0	6.0	10.0	15.0
07/12/07	2.0	8.0	15.0	6.0	9.0	15.0	10.0	12.0	15.0	5.0	10.0	15.0	6.0	10.0	15.0
08/01/07	1.5	7.0	15.0	5.5	10.0	15.0	-	OFF	-	5.0	9.5	15.0	5.5	11.0	15.0
08/10/07	5.0	10.0	17.0	9.5	16.0	17.0	-	OFF	-	10.0	12.5	17.0	9.0	15.5	17.0
09/11/07	5.5	17.0	16.0	5.5	16.5	16.0	-	OFF	-	9.0	10.0	19.5	8.0	12.0	19.5
09/28/07	3.0	7.5	24.0	8.0	17.0	20.0	2.5	8.0	20.0	16.0	17.0	20.0	9.0	15.0	20.0
10/01/07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/21/07	3.0	10.0	25.0	11.0	15.0	21.0	n/a	OFF	-	12.0	12.0	20.0	О	BSTRUCTE	ED
12/26/07	-	OFF	-	0	BSTRUCTE	ED	n/a	OFF	-	18.0	13.5	20.0	11.5	15.5	20.0
01/15/08	-	OFF	-	11.0	14.0	21.0	n/a	OFF	-	16.5	11.5	20.0	12.0	14.0	20.0
02/07/08	5.0	9.5	25.0	10.0	13.0	20.0	n/a	OFF	-	15.5	14.0	19.0	15.5	21.0	20.0
03/18/08	9.0	10.0	25.0	5.5	11.5	19.0	n/a	9.5	21.0	8.0	9.5	20.0	8.5	12.0	21.0
04/24/08	7.0	7.0	25.0	3.0	7.0	19.0	-	7.0	21.0	5.0	5.0	21.0	4.0	7.0	21.0
05/29/08	0.0	0.0	25.0	0.0	0.0	19.0	n/a	0.0	21.0	0.0	0.0	21.0	0.0	0.0	21.0
06/26/08	0.0	0.0	25.0	0.0	0.0	20.0	n/a	0.0	22.0	0.0	0.0	21.0	0.0	0.0	21.0
07/30/08	OFF	OFF	25.0	OFF	OFF	20.0	OFF	OFF	22.0	5.0	15.0	21.0	4.5	15.0	21.0
09/30/08	OFF	OFF	25.0	OFF	OFF	20.0	n/a	8.0	22.0	OFF	OFF	21.0	OFF	OFF	21.0
11/04/08	3.0	8.0	25.0	3.0	8.0	20.0	n/a	8.0	22.0	5.0	10.0	21.0	5.0	10.0	21.0
12/02/08	2.5	8.0	25.0	5.0	9.0	20.0	n/a	12.0	22.0	7.0	10.0	21.0	6.0	11.0	21.0

NOTES:

in-Hg = inches of mercury (gauge pressure)

 $ft \ toc = dpeth \ in \ feet \ as \ measured \ from \ the \ top \ of \ the \ well \ casing$

n/a = casing vacuum gauges not installed at this well

TABLE 8: WELLHEAD VACUUM & DROP TUBE DEPTH DATA SUMMARY

Vic's Auto, 245 8th Street, Oakland, California

		MW-10			MW-11			MW-12							
Date	Casing Vacuum (in-Hg)	Stinger Vacuum (in-Hg)	Stinger Depth (ft toc)												
06/28/07	-	-	-	-	-	-	-	-	-						
07/12/07	-	-	-	-	-	-	-	-	-						
08/01/07	-	-	-	-	-	-	-	-	-						
08/10/07	-	-	-	-	-	-	-	-	-						
09/11/07	-	-	-	-	-	-	-	-	-						
09/28/07	-	-	-	-	-	-	-	-	-						
10/01/07	-	-	-	-	-	-	-	-	-						
11/21/07	n/a	13.0	18.0	n/a	11.0	19.0	n/a	14.0	19.0						
12/26/07	n/a	11.0	18.0	n/a	10.5	19.0	n/a	14.5	19.0						
01/15/08	n/a	10.0	18.0	n/a	9.0	19.0	n/a	12.0	19.0						
02/01/08	n/a	9.0	18.0	n/a	10.0	19.0	n/a	15.0	19.0						
03/18/08	n/a	7.5	18.0	n/a	9.0	19.0	n/a	9.0	20.5						
04/24/08	n/a	0.0	18.0	n/a	0.0	19.0	n/a	4.0	19.0						
05/29/08	n/a	11.0	20.0	n/a	14.0	20.0	n/a	13.0	20.0						
06/26/08	n/a	12.0	20.0	n/a	15.0	20.0	n/a	14.0	20.0						
07/30/08	n/a	10.0	20.0	n/a	13.0	20.0	n/a	12.0	20.0						
09/30/08	n/a	15.0	22.0	n/a	15.0	22.0	n/a	15.0	22.0						
11/04/08	n/a	10.0	22.0	n/a	15.0	22.0	n/a	15.0	22.0						
12/02/08	n/a	10.0	22.0	n/a	11.0	22.0	n/a	11.0	22.0						

NOTES:

in-Hg = inches of mercury (gauge pressure)

ft toc = dpeth in feet as measured from the top of the well casing

n/a = casing vacuum gauges not installed at this well

TABLE 9: HVDPE PERFORMANCE & MASS REMOVAL DATA SUMMARY

Sample Date	Notes	Possible Runtime (days)	Possible Runtime (hrs)	Hour Meter Reading	Actual Runtime (days)	Actual Runtime (hrs)	System Runtime (%)	Inlet Temp (°F)	Inlet Vac (in-Hg)	Well Velocity (fpm)	Well Flow (scfm)	PRED TPH-g (ppmv)	Mass Removal Rate (lbs/day)	Total Mass Removed (pounds)	Total Mass Removed (gallons)
06/28/07	1 Startup	-	-	10	-	-	-	60	18	850	42	-	-	0	0
07/11/07		13	312	53	2	43	14%	60	22	1,725	85	6,600	224	402	67
07/27/07		16	384	103	2	51	13%	60	20	1,700	83	11,000	368	1,180	197
08/01/07		5	120	160	2	57	47%	60	19	1,900	93	5,500	206	1,668	278
08/10/07	2,3	9	216	350	8	189	88%	60	22	1,800	88	7,700	273	3,820	637
09/28/07	4	49	1176	896	23	546	46%	60	20	1,700	83	4,000	134	6,865	1,144
10/17/07		19	456	1,239	14	343	75%	60	21	1,100	54	5,100	110	8,446	1,408
11/08/07		22	528	1,709	20	470	89%	60	22	1,100	54	4,000	87	10,141	1,690
11/16/07		8	192	1,874	7	166	86%	60	21	1,100	54	6,000	130	11,038	1,840
11/21/07	5	5	120	1,994	5	120	100%	60	20.5	1,500	74	2,500	74	11,407	1,901
12/04/07		13	312	2,231	10	236	76%	60	20	1,150	56	7,900	179	13,168	2,195
12/26/07		22	528	2,566	14	335	63%	60	18	1,300	64	4,100	105	14,633	2,439
01/15/08		20	480	3,016	19	451	94%	60	19	1,200	59	1,900	45	15,476	2,579
01/22/08	6,7	7	168	3,064	2	48	29%	60	18	1,500	74	1,900	56	15,589	2,598
01/31/08		9	216	3,276	9	212	98%	60	20	1,250	61	2,200	54	16,067	2,678
02/07/08		7	168	3,443	7	167	99%	60	22	1,100	54	2,000	43	16,368	2,728
03/18/08	8,9	40	960	3,653	9	210	22%	60	15	1,400	69	630	17	16,520	2,753
04/01/08		14	336	3,952	12	299	89%	60	19	1,500	74	2,100	62	17,292	2,882
04/30/08		29	696	4,591	27	639	92%	60	19	1,900	93	2,100	79	19,383	3,231
05/29/08		29	696	4,978	16	387	56%	60	19.5	900	44	2,100	37	19,983	3,331
06/26/08		28	672	5,489	21	511	76%	60	23	1,200	59	860	20	20,416	3,403
07/30/08		34	816	6,184	29	694	85%	60	17	1,600	79	2,200	69	22,422	3,737
09/30/08		62	1488	6,673	20	489	33%	60	9	2,000	98	1,100	43	23,304	3,884
11/04/08		35	840	7,062	16	389	46%	60	11	1,200	59	2,700	64	24,339	4,057
12/02/08		28	672	7,697	26	635	94%	60	10	1,200	59	2,200	52	25,715	4,286
AVG	-	-	-	-	-	-	70%	60	11	1,200	59	2,450	58	-	-

TABLE 9: HVDPE PERFORMANCE & MASS REMOVAL DATA SUMMARY

Vic's Auto, 245 8th Street, Oakland, California

Sample Date	Notes	Possible Runtime (days)	Possible Runtime (hrs)	Hour Meter Reading	Actual Runtime (days)	Actual Runtime (hrs)	System Runtime (%)	Inlet Temp (°F)	Inlet Vac (in-Hg)	Well Velocity (fpm)	Well Flow (scfm)	PRED TPH-g (ppmv)	Mass Removal Rate (lbs/day)	Total Mass Removed (pounds)	Total Mass Removed (gallons)	
----------------	-------	-------------------------------	------------------------------	--------------------------	-----------------------------	----------------------------	--------------------------	-----------------------	-------------------------	---------------------------	------------------------	-------------------------	--------------------------------------	--------------------------------------	---------------------------------------	--

NOTES:

ppmv = parts per million by volume hrs = hours Flow = Velocity x Cross Sectional Area of the Pipe TPH-g = total petroluem hydrocarbons as gasoline - not analyzed/applicable Cross Sectional Area of 3" Pipe = 0.0491 ft^2 TPH-g by EPA Method 8015C fpm = feet per minute Well Flow = Well Velocity * 0.0491

in-Hg = inches of mercury (gauge pressure) scfm = standard cubic feet per minute PRED = TPH-g influent concentration

1) System installed and started up on June 26, 2007

2) Propane delivery missed; system shutdown on 08/06/07

3) Propane delivery missed; system shutdown on 08/21/07

4) System down between 09/11 and 09/24/08 due to electrical problems

5) System expanded; MW-10, MW-11 and MW-12 extraction added online

6) Propane delivery missed; system shutdown on 01/02/08

7) Propane delivery missed; system shutdown on 01/22/08

8) System shutdown most of February to evaluate free product recovery

9) Catalyst module installed and started up in March

10)

MASS REMOVAL RATE (MRR) ESTIMATE ASSUMPTIONS:

 $MRR \; Estimate = (20,000*10^{\circ}-6)*(50scfm)*(1440min/day)*(28.32L/ft^{\circ}3)*(1mol/22.4L)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(100g/mol)*(1lb/454g)*(11b/454g$

Negligible change in air density, constant concentration and average molecular weight

1 mole occupies 22.4 Liters at STP

STP is 21° C and 1 atm $16t^{\circ} = 28.38 \text{ liters}$ MWgas = 100 grams/mole (weathered gasoline) 1 lb = 454 grams 1 day = 1440 minutes $1 \text{ gallon gas} \sim 6 \text{ pounds}$

AVG = average values in red for the current reporting period

TABLE 10: THERMAL/CATALYTIC OXIDIZER PERFORMANCE & MASS REMOVAL DATA SUMMARY

Vic's Auto, 245 8th Street, Oakland, California

Sample Date	Notes	Possible Runtime (days)	Possible Runtime (hrs)	Hour Meter Reading	Actual Runtime (days)	Actual Runtime (hrs)	System Runtime (%)	Preheat Temp (°F)	Exhaust Temp (°F)	Total Velocity (fpm)	Total Flow (scfm)	POSTD TPH-g (ppmv)	STACK TPH-g (ppmv)	Abatement Efficiency (%)	TPH-g Destruction Rate (lbs/day)	Total TPH-g Destroyed (pounds)	Total TPH-g Destroyed (gallons)	Total TPH-g Destroyed (btu)
06/28/07	1 Startup	-	-	10	0.4	10	-	1,430	1,427	2,150	106	3,800	3.5	99.91%	161	65	11	1,233,826
07/11/07		13	312	53	2	43	14%	1,478	1,392	2,625	129	1,400	3.5	99.75%	72	195	32	3,701,491
07/27/07		16	384	103	2	51	13%	1,428	1,386	2,600	128	3,400	3.5	99.90%	174	562	94	10,692,358
08/01/07		5	120	160	2	57	47%	1,425	1,377	2,800	137	2,500	3.5	99.86%	138	890	148	16,916,123
08/10/07	2,3	9	216	350	8	189	88%	1,411	1,341	2,000	98	5,300	3.5	99.93%	209	2,535	422	48,204,535
09/28/07	4	49	1176	896	23	546	46%	1,471	1,438	3,000	147	4,800	3.5	99.93%	284	8,984	1,497	170,844,523
10/17/07		19	456	1,239	14	343	75%	1,409	1,365	2,400	118	1,800	3.5	99.81%	85	10,201	1,700	193,992,681
11/08/07		22	528	1,709	20	470	89%	1,412	1,342	2,000	98	2,000	21	98.95%	79	11,742	1,957	223,297,250
11/16/07		8	192	1,874	7	166	86%	1,408	1,347	2,000	98	3,600	3.5	99.90%	142	12,721	2,120	241,905,549
11/21/07	5	5	120	1,994	5	120	100%	1,412	1,308	2,400	118	5,500	3.5	99.94%	260	14,022	2,337	266,642,477
12/04/07		13	312	2,231	10	236	76%	1,416	1,312	2,050	101	1,300	3.5	99.73%	52	14,538	2,423	276,461,730
12/26/07		22	528	2,566	14	335	63%	1,408	1,352	2,200	108	1,700	3.5	99.79%	74	15,566	2,594	296,020,076
01/15/08		20	480	3,016	19	451	94%	1,411	1,357	2,100	103	620	3.5	99.44%	26	16,048	2,675	305,174,194
01/22/08	6,7	7	168	3,064	2	48	29%	1,407	1,348	2,400	118	1,100	3.5	99.68%	52	16,152	2,692	307,153,643
01/31/08		9	216	3,276	9	212	98%	1,348	1,267	2,150	106	770	3.5	99.55%	33	16,440	2,740	312,628,082
02/07/08		7	168	3,443	7	167	99%	1,409	1,333	2,000	98	690	3.5	99.49%	27	16,628	2,771	316,215,556
03/18/08	8,9	40	960	3,653	9	210	22%	705	794	2,300	113	310	3.5	98.87%	14	16,751	2,792	318,555,075
04/01/08		14	336	3,952	12	299	89%	703	751	3,100	152	500	3.5	99.30%	31	17,131	2,855	325,777,446
04/30/08		29	696	4,591	27	639	92%	709	792	2,700	133	700	3.5	99.50%	37	18,122	3,020	344,619,107
05/29/08		29	696	4,978	16	387	56%	703	769	1,800	88	500	3.5	99.30%	18	18,408	3,068	350,052,986
06/26/08		28	672	5,489	21	511	76%	802	841	2,500	123	620	3.5	99.44%	31	19,057	3,176	362,409,874
07/30/08		34	816	6,184	29	695	85%	705	797	2,800	137	-	3.5	-	-	-	-	-
09/30/08		62	1488	6,673	20	489	33%	759	855	3,200	157	-	3.5	-	-	-	-	-
11/04/08		35	840	7,062	16	389	46%	702	832	2,600	128	-	3.5	-	-	-	-	-
12/02/08		28	672	7,697	26	635	94%	704	812	2,100	103	-	52.0	-	-	-	-	-
AVG	-	-	-	-	-	-	70%	703	822	2,350	115	-	27.8	-	-	-	-	-

NOTES:

ppmv = parts per million by volume TPH-g = total petroluem hydrocarbons as gasoline TPH-g by EPA Method 8015C

hrs = hours

not analyzed/applicable
 fpm = feet per minute

scfm = standard cubic feet per minute btu = british thermal units Flow = Velocity x Cross Sectional Area of the Pipe Cross Sectional Area of 3" Pipe = 0.0491 ft^2 Total Flow = Total Velocity * 0.0491 POSTD = TPH-g influent concentration

DL = detection limit

1/2 the DL was used for abatement efficiency calculations DL for THP-g by modified EPA Method 8015 = 7.0 ppmv

- 1) System installed and started up on June 26, 2007
- 2) Propane delivery missed; system shutdown on 08/06/07
- 3) Propane delivery missed; system shutdown on 08/21/07
- 4) System down between 09/11 and 09/24/08 due to electrical problems
- 5) System expanded; MW-10, MW-11 and MW-12 extraction added online

- 6) Propane delivery missed; system shutdown on 01/02/08
- 7) Propane delivery missed; system shutdown on 01/22/08
- 8) System shutdown most of February to evaluate free product recovery
- 9) Catalyst module installed and started up in March

10)

MASS REMOVAL RATE (MRR) ESTIMATE ASSUMPTIONS:

 $MRR\ Estimate = (20,000*10^{-}6)*(50scfm)*(1440min/day)*(28.32L/ft^{A}3)*(1mol/22.4L)*(100g/mol)*(1lb/454g)$

Negligible change in air density, constant concentration and average molecular weight

1 mole occupies 22.4 Liters at STP

STP is 21°C and 1 atm

1 ft^3 = 28.32 liters

 $\begin{aligned} MWgas &= 100 \ grams/mole \ (weathered \ gasoline) \\ 1 \ day &= 1440 \ minutes \end{aligned}$

1 lb = 454 grams 1 gallon gas ~ 6 pounds 1 gallon gas ~ 114,100 btu

AVG = average values in red for the current reporting period

TABLE 11: AIR STRIPPER PERFORMANCE & MASS REMOVAL DATA SUMMARY

Sample Date	Notes	Hour Meter Reading	Actual Runtime (days)	Blower VFD (Hz)	Back Pressure (in-H2O)	Outlet Velocity (fpm)	Outlet Flow (scfm)	Effluent TPH-g Conc. (ppmv)	Influent TPH-g Conc. (µg/L)	Effluent TPH-g Conc. (µg/L)	Removal Efficiency (%)
06/26/07	1	0	-	45	25	2,600	128	-	20,000	1,000	95.0%
06/27/08		5	0.20	45	25	2,600	128	-	25,000	420	98.3%
06/28/07		10	0.20	25	10	1,300	64	-	28,000	6,400	77.1%
07/03/07		-	-	40	20	2,300	113	-	-	-	-
07/11/07		-	-	40	20	2,300	113	-	-	-	-
07/11/07		-	-	20	5	900	44	-	-	-	-
07/12/07		70	3	20	5	900	44	-	8,300	-	-
07/12/07		70	0	15	4	600	29	-	8,300	-	-
07/27/07		-	-	20	6	900	44	-	-	-	-
08/01/07		-	-	20	6	900	44	-	-	-	-
08/10/07		-	-	10	2	200	10	-	-	-	-
08/07/07		-	-	15	3	600	29	-	-	-	-
08/21/07		-	-	20	18	900	44	-	-	-	-
08/22/07		530	19	15	5	600	29	-	16,000	5,300	66.9%
09/28/07		-	-	25	16	1,300	64	-	-	-	-
10/17/07		1,239	30	25	15	1,300	64	130	25,000	84	99.7%
10/23/07		-	-	25	15	1,300	64	-	-	-	-
10/25/07		-	-	20	15	900	44	-	-	-	-
11/07/07		1,709	20	20	16	900	44	-	21,000	120	99.4%
11/08/07		-	-	20	16	900	44	19	-	-	-
11/16/07		-	-	20	16	900	44	-	-	-	-
11/20/07		-	-	20	18	900	44	-	-	-	-
11/21/07		-	-	20	18.5	900	44	-	-	-	-
11/27/07		-	-	20	20	900	44	-	-	-	-
12/04/07		-	-	20	19	900	44	-	-	-	-
12/12/07	3	2,366	27	20	18	900	44		75,000	65,000	13.3%
12/14/07		-	-	20	18	900	44	-	-	-	<u> </u>
	i	-	-					į			į

TABLE 11: AIR STRIPPER PERFORMANCE & MASS REMOVAL DATA SUMMARY

Vic's Auto, 245 8th Street, Oakland, California

Sample Date	Notes	Hour Meter Reading	Actual Runtime (days)	Blower VFD (Hz)	Back Pressure (in-H2O)	Outlet Velocity (fpm)	Outlet Flow (scfm)	Effluent TPH-g Conc. (ppmv)	Influent TPH-g Conc. (µg/L)	Effluent TPH-g Conc. (μg/L)	Removal Efficiency (%)
12/25/07		-	-	20	20	900	44	-	-	-	-
12/26/07		-	-	20	20	900	44	-	-	-	-
01/08/08		2,815	19	20	19.5	900	44	-	12,000	130	98.9%
01/15/08		-	-	20	19.0	900	44	1,100	-	-	-
01/24/08		-	-	20	19.0	900	44	-	-	-	-
01/31/08		-	-	20	18.5	900	44	-	-	-	-
01/31/08		-	-	20	12.5	900	44	-	-	-	-
02/07/08		-	-	20	15	900	44	31	-	-	-
02/12/08		-	-	20	15	900	44	-	-	-	-
03/18/08		3,653	35	20	15	900	44	31	4,100	120	97.1%
03/28/08		-	-	20	16	900	44	-	-	-	
04/01/08		3,953	12	20	15	900	44	-	2,400	140	94.2%
04/30/08		4,591	27	20	15	900	44	37	8,600	25	99.7%
05/29/08		4,978	16	20	17.5	900	44	ND<7.0	13,000	100	99.2%
06/26/08		5,489	21	20	20	1,300	64	44	7,600	70	99.1%
07/30/08		6,184	29	30	17.5	1,200	59	41	9,400	130	98.6%
09/30/08		6,673	20	30	19	1,200	59	-	6,100	94	98.5%
11/04/08	4	7,062	16	30	16	1,200	59	21	9,400	ND<50	99.7%
12/02/08	5	7,697	26	30	17	1,200	59	10	8,300	ND<50	99.7%
AVG	-	-	-	30	17	1,200	59	-	8,850	ND<50	99.7%

NOTES:

Hz = hertz (used to control flow rate)

in-H2O = inche of water

 $scfm = standard\ cubic\ feet\ per\ minute$

ppmv = parts per million by volume

 $\mu g/L = micrograms per Liter of water$

1) System started up and first discharge to the sanitary sewer	6)
2) Air stripper cleaned due to high backpressure	7)
3) Slug of free product may have been processed by air stripper	8)
4) First time air stripper effluent was non-detect for TPH-g	9)
5) Second time air stripper effluent was non-detect for TPH-g	10)

TABLE 12: ACTIVATED CARBON ABSORBER PERFORMANCE & MASS REMOVAL DATA SUMMARY

Sample Date	Notes	Hour Meter Reading	Actual Runtime (days)	Flow Totalizer (gallons)	Gallons Pumped/ Treated	Average Flow Rate (gpd)	Average Flow Rate (gph)	Average Flow Rate (gpm)	Bag filter *Inlet Pressure (psig)	Bag filter *Outlet Pressure (psig)	GAC-1 ** Inlet Pressure (psig)	GAC-2 **Inlet Pressure (psig)	Bag filter Changed? (Y/N)	GAC Back- washed? (Y/N)	GAC Changed? (Y/N)	TPH-g Influent Conc. (µg/L)	TPH-g Effluent Conc. (µg/L)	Removal Efficiency (%)	Mass Removal Rate (lbs/day)	Total Mass Removed (lbs)	Total Mass Removed (gallons)
06/26/07	1	0	-	0	-	-	-	-	-	-	1.5	<1.0	-	N	N	1,000	25	97.50%	-	-	-
06/27/07		5	0.2	780	780	3,868	161	2.69	-	-	1.5	<1.0	-	N	N	420	25	94.05%	0.0127	0.0026	0.00
06/28/07		10	0.2	1,300	520	2,579	107	1.79	-	-	1.5	<1.0	-	N	N	6,400	25	99.61%	0.1369	0.0302	0.01
07/03/07		13	0.2	1,800	500	3,166	132	2.20	-	-	1.5	<1.0	-	N	N	-	-	-	-	-	-
07/09/07		25	0.5	4,310	2,510	5,171	215	3.59	-	-	2	<1.0	-	N	N	-	-	-	-	-	- 1
07/10/07		28	0.1	5,000	690	5,224	218	3.63	-	-	3	<1.0	-	N	N	-	-	-	-	-	-
07/11/07		53	1.0	7,280	2,280	2,240	93	1.56	-	-	3	<1.0	-	N	N	-	-	-	-	-	-
07/12/07		70	0.7	7,400	120	162	7	0.11	-	-	5	<1.0	-	Y	N	-	-	-	-	-	-
07/27/07		103	1.4	8,580	1,180	860	35.8	0.60	-	-	2	<1.0	-	N	N	-	-	-	-	-	- I
07/30/07		121	0.7	9,200	620	844	35	0.59	-	-	2	<1.0	-	N	N	-	-	-	-	-	-
08/01/07		160	1.6	13,400	4,200	2,560	107	1.78	-	-	5	<1.0	-	Y	N	-	-	-	-	-	-
08/07/07		279	4.9	14,470	1,070	217	9.0	0.15	-	-	2	<1.0	-	N	N	-	-	-	-	-	-
08/17/08	2	445	6.9	25,000	10,530	1,522	63.4	1.06	2	2.5	2.5	<1.0	Y	N	N	-	-	-	-	-	- 1
08/21/07		506	2.6	33,000	8,000	3,135	131	2.18	7	2.5	2.5	<1.0	Y	N	N	-	-	-	-	-	-
08/22/07		530	1.0	34,110	1,110	1,110	46	0.77	2	2.5	2.5	<1.0	N	N	N	5,300	25	99.53%	0.0488	1.47	0.25
08/23/07		554	1.0	36,710	2,600	2,590	108	1.80	2	2.5	2.5	<1.0	N	N	N	-	-	-	-	-	; - I
08/27/07		648	3.9	45,800	9,090	2,311	96	1.60	10	>7	>7	-	Y	Y	Y	-	-	-	-	-	- 1
08/31/07		744	4.0	50,820	5,020	1,255	52	0.87	2	2.5	2.5	<1.0	N	N	N	-	-	-	-	-	-
09/05/08		862	4.9	57,100	6,280	1,277	53	0.89	10	2.5	2.5	<1.0	Y	N	N	-	-	-	-	-	-
09/24/07		896	1.4	65,360	8,260	6,004	250	4.17	10	2.5	2.5	<1.0	Y	N	N	-	-	-	-	-	-
10/01/07		1,088	8.0	99,000	33,640	4,205	175	2.92	15	>10	>10	2	Y	N	Y	-	-	-	- 0.0000	-	-
10/17/07	3	1,239	6.3	140,710	41,710	6,609	275	4.59	11	4	4	2	N	N	N	84	25	70.24%	0.0032	1.52	0.25
10/23/07		1,384	6.0	173,260	32,550	5,389	225	3.74	24	7.5	7.5	2.5	N	N	N	-	-	-	-	<u> </u>	-
10/25/07	4	1,395	0.5	175,600	2,340	4,918	205	3.42	>30 / 7.5	8 / 8	8 / 8	>5 / >5	Y	N	N	-	-	-	- 0.0000	-	-
11/07/07		1,709	13	223,380	47,780	3,661	153	2.54	14	14.5	14.5	OFFLINE	Y	N	N	120	25	79.17%	0.0029	1.59	0.26
11/08/07		1,730	0.9	227,190	3,810	4,354	181	3.02	16	16.5	16.5	OFFLINE	N	N	N	-	_	_	-	-	-
11/13/07		1,809	3.3	244,360	17,170	5,220	217.5	3.62	14	14.5	15	OFFLINE	N	N	N N	-	-	-	-	i -	· -
11/16/07 11/20/07	5	1,874 1,969	2.7 3.9	259,600	15,240 19,590	5,566	232 208	3.87 3.46	17 19	17.5 19.5	18 20	OFFLINE OFFLINE	N N	N N	N N	-	-	-	-	-	-
11/20/07	5	1,969	3.9 1.0	279,190 287,450	8,260	4,983 8,260	208 344	5.46 5.74	19	19.5 19.5	20	OFFLINE	N N	N N	N N	-	-	-	-	-	· [
11/21/07		2,107		320,320	8,260 32,870	6,921	344 288	5.74 4.81	-	!	!	!	N Y		!	-	_	_	-	_	-
11/27/07			4.7	320,320	7,720	6,921 7,504	288 313		20.5	21.5 18.5 / 5.5	21.5 19 / 6.0	OFFLINE	Y	N Y	N N	-	-	-	-	-	-
12/04/07		2,131 2,230	1.0	355,820	7,720 27,780	· · · · · · · · · · · · · · · · · · ·	282	5.21	18 / 4.5 17 / 7	18.5 / 5.5 17.5 / 7.5	19 / 6.0	OFFLINE OFFLINE	Y	Y Y	N N	-	-	-	-	i -	-
12/04/07		,	4.1 5.7	391,500	1 1	6,763 6,296		4.70 4.37	20 / 5	17.5 / 7.5	17.5 / 7.5	OFFLINE	Y	Y Y	N N	65,000	- 25	00.060/	3.4067	02.55	15.42
12/12/07		2,366 2,379	5.7 0.6	391,300	35,680 3,760	6,296 6,670	262 278	4.63	20 / 5	4.0	10 / 4.5 4.5	OFFLINE	N N	Y N	N N	65,000	25	99.96%	3.4007	92.55	15.42
12/14/07		2,545	6.9	440,900	3,760 45,640	6,603	276 275	4.63	13	13.5	4.3 14	OFFLINE	N N	N N	N N	_	-	-	_	-	_
12/20/07		2,343	0.7	++0,700	45,040	0,003	213	4.37	13	13.3	14	OFFLINE	14	IN	14		-	_	_	_	_

TABLE 12: ACTIVATED CARBON ABSORBER PERFORMANCE & MASS REMOVAL DATA SUMMARY

Vic's Auto, 245 8th Street, Oakland, California

Sample Date	Notes	Hour Meter Reading	Actual Runtime (days)	Flow Totalizer (gallons)	Gallons Pumped/ Treated	Average Flow Rate (gpd)	Average Flow Rate (gph)	Average Flow Rate (gpm)	Bag filter *Inlet Pressure (psig)	Bag filter *Outlet Pressure (psig)	GAC-1 ** Inlet Pressure (psig)	GAC-2 **Inlet Pressure (psig)	Bag filter Changed? (Y/N)	GAC Back- washed? (Y/N)	GAC Changed? (Y/N)	TPH-g Influent Conc. (µg/L)	TPH-g Effluent Conc. (µg/L)	Removal Efficiency (%)	Mass Removal Rate (lbs/day)	Total Mass Removed (lbs)	Total Mass Removed (gallons)
01/08/08		2,815	11.2	512,760	71,860	6,398	267	4.44	18.5	19	19	OFFLINE	OFFLINE	N	N	130	25	80.77%	0.0056	92.66	15.44
01/15/08		3,016	8.4	541,920	29,160	3,472	145	2.41	19	20	20	OFFLINE	OFFLINE	N	N	-	-	-	-	-	-
01/22/08		3,064	2.0	550,780	8,860	4,424	184	3.07	16.5 / 4	17 / 4	17 / 4	OFFLINE	OFFLINE	Y	N	-	-	-	-	-	-
01/31/08		3,276	8.8	608,890	58,110	6,580	274	4.57	16 / 8	16.5 / 8.5	16.5 / 8.5	OFFLINE	OFFLINE	Y	N	-	-	-	-	-	-
02/07/08		3,443	6.9	657,140	48,250	6,950	290	4.83	19	19.5	19.5	OFFLINE	OFFLINE	N	N	-	-	-	-	-	-
02/12/08		3,559	4.8	685,990	28,850	5,957	248	4.14	25.5	26	26	OFFLINE	OFFLINE	N	N	-	-	-	-	-	-
03/18/08		3,653	3.9	715,480	29,490	7,523	313	5.22	16.5	17	17	OFFLINE	OFFLINE	Y	N	120	25	79.17%	0.0060	92.82	15.47
03/28/08		3,851	8.2	760,730	45,250	5,499	229	3.82	4	4.5	4.5	OFFLINE	OFFLINE	N	N		-	-		-	-
04/01/08		3,953	4.3	771,940	11,210	2,637	110	1.83	9.5	10	10	OFFLINE	OFFLINE	N	N	2,400	25	98.96%	0.0522	94.52	15.75
04/30/08		4,591	26.6	858,530	86,590	3,254	136	2.26	17	17.5	17.5	OFFLINE	OFFLINE	N	N	8,600	25	99.71%	0.2324	103.03	17.17
05/29/08		4,978	16.1	931,605	73,075	4,532	189	3.15	23	23.5	23.5	OFFLINE	OFFLINE	N	N	13,000	25	99.81%	0.4896	110.93	18.49
06/26/08		5,489	21.3	1,039,610	108,005	5,075	211	3.52	25	26	26	OFFLINE	OFFLINE	N	N	7,600	25	99.67%	0.3201	117.74	19.62
07/30/08		6,184	28.9	1,061,870	22,260	769	32	0.53	26	26.5	26.5	OFFLINE	OFFLINE	N	N	9,400	25	99.73%	0.0601	119.48	19.91
09/30/08		6,673	20.4	1,111,770	49,900	2,449	102	1.70	23	24.5	24.5	OFFLINE	OFFLINE	N	N	6,100	25	99.59%	0.1239	122.00	20.33
11/04/08		7,062	16.2	1,181,610	69,840	4,305	179	2.99	22	22.5	22.5	i	OFFLINE	N	N	9,400	25	99.73%	0.3360	127.45	21.24
12/02/08		7,697	26.5	1,281,070	99,460	3,759	157	2.61	28	28.5	28.5	OFFLINE	OFFLINE	N	N	8,300	25	99.70%	0.2590	134.31	22.38
AVG	-	-	-	-	-	4,032	168	2.8	-	-	-	-	-	-	-	8,850	25	99.72%	0.2975	-	-

NOTES:

gpd = gallons per day

gph = gallons per hour

gpm = gallons per minute psig = pounds per square inch

 $\mu g/L = micrograms per Liter of water (ppb)$

lbs/day = pounds per day GAC = granular activated carbon

Conc. = concentration

TPH-g = Total Petroleum Hydrocarbons as Gasoline

TPH-g by EPA Method 8015C

Minimum EBMUD wastewater discharge permit reporting requirements are:

- monthly flow totalizer readings
- volume of groundwater treated during this reporting period
- total volume of groundwater treated to date
- description of any operationsl changes during this reporting period

Mass Removal Rate (lbs/day) = $(1 \text{ gal/min})*(1,000\mu\text{g/L} - 25\mu\text{g/L})*(3.785\text{L/gallon})*(1440/\text{min/day})*(2.2lbs/10^9\mu\text{g})$

Total Mass Removed (lbs) = $(1 \text{ gallon})*(1,000\mu\text{g/L} - 25\mu\text{g/L})*(3.785\text{L/gallon})*(2.2lb\text{s}/10^9\mu\text{g})$

1 gallon of gas = ~ 6 pounds

1/2 the DL was used for removal efficiency and mass removal calculations

DL for THP-g by modified EPA Method $8015C = 50 \mu g/L$

AVG = average values in red for the current reporting period

^{**}GAC inlet and outlet pressures are recorded before and after the vessel is backwashed using the following convention: (pressure before / pressure after)

System startup and first dischrage to sanitary sewer	
Bag filter (LCO8) pre-filter for sediment removal installed and started up on 08/17/07	
3) 1,000-pound (PV-1000) carbon absorber (up to 75 psig) installed on 10/5/07 and started up on 10/9/07	

^{4) 200-}pound (ASC-200) carbon absorber (i.e., C-2) taken offline permanently on 10/25/07

^{*}Bag filter inlet and outlet pressures are recorded before and after the bag filter is changed using the following convention: (pressure before / pressure after)

⁵⁾ Extraction wells MW-10, MW-11, and MW-12 brought online 11/20/07

⁶⁾ 7) 8)

⁹⁾

TABLE 13: HVDPE PROCESS MONITORING SCHEDULE

Vic's Auto, 245 8th Street, Oakland, California

Field Point Name	Sample Port Description/Location	TPH-g (SW8015Cm)	BTEX &MTBE (SW8021B)	TVH (ppmv)	CH4 (%)	O2 (%)	CO2 (%)
MW-1S	Sample Port at DPE Manifold	M	M	M	M M	M	M M
MW-2S MW-5S	Sample Port at DPE Manifold Sample Port at DPE Manifold	M M	M M	M M	M M	M M	M M
MW-6S	Sample Port at DPE Manifold	M	M	M	M	M	M
MW-7S	Sample Port at DPE Manifold	M	M	M	M	M	M
MW-10S	Sample Port at DPE Manifold	M	M	M	M	M	M
MW-11S	Sample Port at DPE Manifold	M	M	M	M	M	M
MW-12S	Sample Port at DPE Manifold	M	M	M	M	M	M
PRED	Influent Vapor Sample Port	M	M	M	M	M	M
POSTD	Oxidizer Inlet Sample Port	M	M	M	M	M	M
AS	Stipper Outlet Vapor Sample Port	M	M	M	M	M	M
STACK	Stack Gas Discharge Sample Port	M	M	M	M	M	M
GP-1-5'	Permanent Soil Gas Probe	-	-	Q	Q	Q	Q
GP-1-10'	Permanent Soil Gas Probe	-	-	Q	Q	Q	Q
GP-2-5'	Permanent Soil Gas Probe	-	-	Q	Q	Q	Q
GP-2-10'	Permanent Soil Gas Probe	-	-	Q	Q	Q	Q
GP-3-5'	Permanent Soil Gas Probe	-	-	Q	Q	Q	Q
GP-3-10'	Permanent Soil Gas Probe	-	-	Q	Q	Q	Q
GP-4-5'	Permanent Soil Gas Probe	-	-	Q	Q	Q	Q
GP-4-10'	Permanent Soil Gas Probe	-	-	Q	Q	Q	Q
INF	Influent Water Sample Port	M	M	-	-	-	-
POST-AS	Water Sample Port After Stripper	M	M	-	-	-	-
POST-C1	Water Sample Port After C-1	M	M	-	-	-	-
EFF	Effluent Water Sample Port	M	M	-	-	-	-

NOTES:

W = weekly

BW = bi-weekly

M = monthly

A = annual

SA = semi-annual

AN = as neededSP = sample port

 $HC = total \ volatile \ hydrocarbon$ $ppmv = parts \ per \ million \ by \ volume$

% = percent concentration by volume

TVH = total volatile hydrocarbons (calibrated w/ hexane)

CH4 = methane

O2 = oxygen

CO2 = carbon dioxide

TVH, CH4, O2, and CO2 measured $\ensuremath{\text{w}}/$ RKI Eagle gas detector

^{*}Additional water analysis for Total Oil and Grease Hydrocarbon by Method HEM-1664SGT required every 6 months by EBMUD permit

^{**}POSTD and STACK required every month by BAAQMD permit

^{***}Soil gas sampling for vapor intrusion evaluation is conducted quarterly with routine groundwater monitoring events

APPENDIX A MONITORING WELL FIELD SAMPLING FORMS

Monitoring Well Number: MW-1

Project Name:	Vic's Automotive	Date of Sampling:	11/7/2008
Job Number:	116907	Name of Sampler:	A. Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA				
Well Casing Diameter (2"/4"/6")		4		
Wellhead Condition	OK	▼		
Elevation of Top of Casing (feet above msl)		32.55		
Depth of Well		28.00		
Depth to Water (from top of casing)		17.40		
Depth to Free Product (from top of casing)	Not detected			
Water Elevation (feet above msl)	15.15			
Well Volumes Purged	3			
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	20.6			
Actual Volume Purged (gallons)	22.0			
Appearance of Purge Water	Clear at 2 gallons			
Free Product Present?	No	Thickness (ft): -		

GROUNDWATER SAMPLES Number of Samples/Container Size Three (3) 40mL VOAs Vol Removed Temperature ORP DO PΗ Time Conductivity Comments (deg C) (meV) (gal) 8:56 1 17.88 424 1.01 7.00 -91.4 Silty dark 2 416 0.86 7.00 Clear 17.90 -87.2 3 17.98 412 0.43 -84.3 Clear 6.99 4 18.02 411 0.20 6.97 -89.3 Clear 7 18.05 409 0.19 6.95 -102.3 Clear 10 18.07 408 0.96 -83.4 Clear 6.94 16 18.07 407 1.43 -68.3 Clear 6.92 16 18.14 423 0.84 6.93 -82.5 Clear 19 18.13 409 1.33 6.92 -65.8 Clear 1.17 9:17 21 18.14 409 6.92 -67.8 Clear

Dark and silty with strong hydrocarbon odors noted		

Monitoring Well Number: MW-2

Project Name:	Vic's Automotive	Date of Sampling:	11/7/2008
Job Number:	116907	Name of Sampler:	A. Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA			
Well Casing Diameter (2"/4"/6")		2	
Wellhead Condition	OK	•	
Elevation of Top of Casing (feet above msl)		33.24	
Depth of Well		28.00	
Depth to Water (from top of casing)	18.79		
Water Elevation (feet above msl)	14.45		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	4.4		
Actual Volume Purged (gallons)	5.0		
Appearance of Purge Water	Clears quickly		
Free Product Present?	No	Thickness (ft): -	

GROUNDWATER SAMPLES							
Number of Samples/Container Size			Three (3) 40mL VOAs				
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
12:18	1	18.59	413	0.37	6.71	-43.3	Silty dark
	2	18.69	405	0.26	6.65	-71.8	Clear
	3	18.71	430	0.29	6.58	-82.6	Clear
	4	18.71	433	0.29	6.55	-89.8	Clear
12:22	5	18.71	432	0.27	6.53	-92.5	Clear

Dark and silty with strong hydrocarbon odors noted		

Monitoring Well Number: MW-3

Clear

Clear

-51.8

-44.4

Project Name:	Vic's Automotive	Date of Sampling:	11/7/2008
Job Number:	116907	Name of Sampler:	A. Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA			
Well Casing Diameter (2"/4"/6")		4	
Wellhead Condition	OK		
Elevation of Top of Casing (feet above msl)	34.25		
Depth of Well	25.00		
Depth to Water (from top of casing)	19.60		
Water Elevation (feet above msl)	14.65		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	10.5		
Actual Volume Purged (gallons)	11		
Appearance of Purge Water	Light brown, fast clearing		
Free Product Present?	No	Thickness (ft):	-

Number of Samples/Container Size Three (3) 40mL VOAs Vol Removed Temperature ORP Time Conductivity DO РΗ Comments (meV) (gal) (deg C) 1.47 9:53 19.72 498 6.57 -20.4 Light brown 2 0.36 -21.2 Clear 19.91 488 6.49 3 20.08 461 0.34 6.48 -39.6 Clear -53.1 20.23 447 0.58 6.44 Clear 4 5 20.22 470 0.42 6.43 -60.4 Clear 0.39 -61.2 6 20.20 484 6.44 Clear 7 20.17 494 0.42 6.44 -60.2 Clear 8 20.16 495 0.51 6.43 -58.7 Clear

GROUNDWATER SAMPLES

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

0.57

0.71

6.42

6.42

495

495

9

10.5

10:02

20.14

20.13

Started light brown with no hydrocarbon odors noted		

Monitoring Well Number: MW-4

Project Name:	Vic's Automotive	Date of Sampling:	11/7/2008
Job Number:	116907	Name of Sampler:	A. Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA			
Well Casing Diameter (2"/4"/6")		4	
Wellhead Condition	OK	▼	
Elevation of Top of Casing (feet above msl)		34.42	
Depth of Well		25.00	
Depth to Water (from top of casing)	20.42		
Water Elevation (feet above msl)	14.00		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	8.9		
Actual Volume Purged (gallons)	9.0		
Appearance of Purge Water	Light brown, fast clearing		
Free Product Present?	No	Thickness (ft): -	

GROUNDWATER SAMPLES							
Number of Sample	Number of Samples/Container Size			Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
12:25	1	18.07	263.00	5.05	6.65	-17.7	Light brown
	2	18.23	239.00	6.57	6.52	-23.8	Clear
	3	18.34	234.00	6.14	6.42	-26.7	Clear
	4	18.36	240.00	5.82	6.40	-26.7	Clear
	5	18.31	237.00	5.45	6.40	-28.5	Clear
	6	18.31	238.00	5.22	6.40	-29.8	Clear
	7	18.27	242.00	4.52	6.44	-46.3	Clear
	8	18.26	233.00	4.87	6.41	-39.3	Clear
12:33	9	18.26	240.00	4.50	6.40	-38.8	Clear

Started light brown with no hydrocarbon odors noted					

Monitoring Well Number: MW-5

Project Name:	Vic's Automotive	Date of Sampling:	11/7/2008
Job Number:	116907	Name of Sampler:	A. Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA					
Well Casing Diameter (2"/4"/6")		4			
Wellhead Condition	ОК				
Elevation of Top of Casing (feet above msl)		33.33			
Depth of Well	22.00				
Depth to Water (from top of casing)	17.99				
Water Elevation (feet above msl)	15.34				
Well Volumes Purged	3				
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	7.8				
Actual Volume Purged (gallons)	8.0				
Appearance of Purge Water	Clear				
Free Product Present?	? No Thickness (ft): -				

GROUNDWATER SAMPLES							
Number of Sample	Number of Samples/Container Size			Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
9:27	1	19.93	434	1.01	6.59	-33.4	Clear
	2	20.32	431	0.28	6.54	-51.0	Clear
	3	20.45	407	0.18	6.57	-77.2	Clear
	4	20.32	360	0.25	6.68	-89.8	Clear
	5	20.23	362	2.76	6.73	-38.9	Clear
	6	20.12	362	1.64	6.76	-20.1	Clear
	7	20.22	360	1.20	6.72	-27.7	Clear
	8	20.23	360	1.05	6.70	-34.9	Clear
9:35	9.5	20.12	360	1.01	6.69	-38.2	Clear

Monitoring	Well Number:	MW-6
	WEIL MUILINGL.	IVI V V - C

Project Name:	Vic's Automotive	Date of Sampling:	11/7/2008
Job Number:	116907	Name of Sampler:	A. Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA					
Well Casing Diameter (2"/4"/6")		4			
Wellhead Condition	ОК				
Elevation of Top of Casing (feet above msl)		32.82			
Depth of Well	22.00				
Depth to Water (from top of casing)	17.33				
Depth to Free Product (from top of casing)	Not detected				
Water Elevation (feet above msl)	15.49				
Well Volumes Purged	3				
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	9.1				
Actual Volume Purged (gallons)	10.0				
Appearance of Purge Water	Light dark, fast clearing				
Free Product Present?	? No Thickness (ft): -				

GROUNDWATER SAMPLES							
Number of Sample	Number of Samples/Container Size			Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
8:33	1	19.66	408	0.78	6.37	-85.8	Clear
	2	20.01	421	0.76	6.43	-99.2	Clear
	3	19.99	409	0.66	6.53	-117.7	Clear
	4	19.92	402	0.78	6.56	-121.1	Clear
	5	19.83	439	0.78	6.64	-124.0	Clear
	7	19.74	395	0.96	6.63	-53.8	Clear
	9	19.81	397	0.54	6.61	-63.4	Clear
9:01	10	19.80	395	0.54	6.62	-66.7	Clear

Light dark with hydrocarbon odors noted
Well went dry at 5 gallons at 8:37 AM
Well recharged at 8:49 AM
Well went dry again at 10 gallons at 9:01 AM

Monitoring W	ell Number:	MW-7
--------------	-------------	------

Project Name:	Vic's Automotive	Date of Sampling:	11/7/2008
Job Number:	116907	Name of Sampler:	A. Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA						
Well Casing Diameter (2"/4"/6")		4				
Wellhead Condition	OK					
Elevation of Top of Casing (feet above msl)		33.07				
Depth of Well		22.00				
Depth to Water (from top of casing)	18.18					
Depth to Free Product (from top of casing)	Not detected					
Water Elevation (feet above msl)	14.89					
Well Volumes Purged	3					
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	7.4					
Actual Volume Purged (gallons)	8.0					
Appearance of Purge Water	Clear					
Free Product Present?	P No Thickness (ft): -					

GROUNDWATER SAMPLES							
Number of Samples/Container Size			Three (3) 40n	nL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
11:33	1	19.02	456	5.53	6.75	-50.2	Clear
	2	19.31	451	3.27	6.75	-69.4	Clear
	3	19.45	449	2.22	6.76	-82.9	Clear
	4	19.32	403	0.72	6.91	-62.5	Clear
	5	19.36	405	0.70	6.86	-67.2	Clear
	6	19.38	411	0.75	6.84	-70.2	Clear
	7	19.34	397	1.32	6.89	-77.7	Clear
12:13	8	19.35	402	1.27	6.87	-76.0	Clear

Clear with strong hydrocarbons odor noted
Well went dry at 3 gallons at 11:35 AM
Well went dry again at 6 gallons at 12:02 PM

Monitoring Well Number: MW-8

Ī	Project Name:	Vic's Automotive	Date of Sampling:	11/7/2008
	Job Number:	116907	Name of Sampler:	A. Nieto
ı	Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA						
Well Casing Diameter (2"/4"/6")		4"				
Wellhead Condition	ОК					
Elevation of Top of Casing (feet above msl)		33.00				
Depth of Well		22.00				
Depth to Water (from top of casing)	17.28					
Depth to Free Product (from top of casing)	None					
Water Elevation (feet above msl)	15.72					
Well Volumes Purged	3					
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	9.2					
Actual Volume Purged (gallons)	10.0					
Appearance of Purge Water	Light brown, clears at 2 gallons					
Free Product Present?	ent? No Thickness (ft): -					

GROUNDWATER SAMPLES Number of Samples/Container Size Three (3) 40mL VOAs Vol Removed Temperature ORP DO PΗ Time Conductivity Comments (deg C) (meV) (gal) 10:07 1 19.23 204 2.02 -19.2 Light brown 7.13 2 193 7.08 -6.2 Clear 19.52 0.96 3 0.76 7.00 -12.9 Clear 19.75 185 4 19.87 186 0.44 6.90 -29.7 Clear 5 19.91 195 1.55 6.86 -39.8 Clear 6 195 5.22 6.91 -36.7 Clear 19.91 7 19.85 188 4.97 7.08 -2.5 Clear 8 19.82 183 4.57 7.15 -18.7 Clear 9 19.87 183 4.57 7.08 -25.4 Clear 7.13 10:36 10 19.85 184 5.04 -35.3 Clear

Light brown with no hydrocarbon odors		
Well went dry at 6 gallons at 10:12 AM		

Monitoring Well Number: MW-9

Project Name:	Vic's Automotive	Date of Sampling:	11/7/2008
Job Number:	116907	Name of Sampler:	A. Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA					
Well Casing Diameter (2"/4"/6")		2"			
Wellhead Condition	OK	▼			
Elevation of Top of Casing (feet above msl)		32.00			
Depth of Well		22.73			
Depth to Water (from top of casing)	15.84				
Depth to Free Product (from top of casing)	None				
Water Elevation (feet above msl)	16.16				
Well Volumes Purged	3				
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	3.3				
Actual Volume Purged (gallons)	4.0				
Appearance of Purge Water	Milky gray, clears by 2 gallons				
Free Product Present?	? No Thickness (ft): -				

GROUNDWATER SAMPLES							
Number of Samples/Container Size				Three (3) 40n	nL VOAs		
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
7:24	1	20.49	510	0.75	6.40	-131.2	Milky gray
	2	20.49	544	0.73	6.47	-139.1	Clear
	3	20.38	623	1.12	6.49	-147.3	Clear
7:27	4	20.35	637	0.95	6.51	-148.7	Clear

Mikly gray with strong hydrocarbon odors noted					

Monitoring Well Number: MW-10

Project Name:	Vic's Automotive	Date of Sampling:	11/7/2008
Job Number:	116907	Name of Sampler:	A. Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA							
Well Casing Diameter (2"/4"/6")	4						
Wellhead Condition	OK						
Elevation of Top of Casing (feet above msl)		31.17					
Depth of Well	22.00						
Depth to Water (from top of casing)	not measured						
Water Elevation (feet above msl)	-						
Well Volumes Purged	-						
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	-						
Actual Volume Purged (gallons)	-						
Appearance of Purge Water							
Free Product Present?	? - Thickness (ft): -						

	GROUNDWATER SAMPLES							
Number of Sampl	es/Container S	Size						
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments	

Wellheads were removed and wells now located beneath new residential construction - routine sampling not possible						

Monitoring Well Number: MW-11

Project Name:	Vic's Automotive	Date of Sampling:	11/7/2008
Job Number:	116907	Name of Sampler:	A. Nieto
Project Address:	245 8th Street, Oakland		

MONITORING WELL DATA							
Well Casing Diameter (2"/4"/6")	4						
Wellhead Condition	OK						
Elevation of Top of Casing (feet above msl)		31.78					
Depth of Well	22.00						
Depth to Water (from top of casing)	not measured						
Water Elevation (feet above msl)	-						
Well Volumes Purged	-						
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	-						
Actual Volume Purged (gallons)	-						
Appearance of Purge Water	-						
Free Product Present?	? - Thickness (ft): -						

	GROUNDWATER SAMPLES							
Number of Sampl	es/Container S	Size						
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments	

W	/ellheads were removed and wells now located beneath new residential construction - routine sampling not possible

Monitoring Well Number: MW-12

Project N	ame:	Vic's Automotive	Date of Sampling:	11/7/2008
Job Nu	nber:	116907	Name of Sampler:	A. Nieto
Project Ad	dress:	245 8th Street, Oakland		

MONITORING WELL DATA						
Well Casing Diameter (2"/4"/6")		4				
Wellhead Condition	ОК					
Elevation of Top of Casing (feet above msl)		32.02				
Depth of Well	22.00					
Depth to Water (from top of casing)	not measured					
Water Elevation (feet above msl)	-					
Well Volumes Purged	-					
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	-					
Actual Volume Purged (gallons)	-					
Appearance of Purge Water	-					
Free Product Present?	? - Thickness (ft): -					

GROUNDWATER SAMPLES							
Number of Sample	es/Container S	Size					
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments

V	Wellheads were removed and wells now located beneath new residential construction - routine sampling not possible							

Monitoring Well Number: MW-13

Project Name:	Vic's Automotive	Date of Sampling:	11/7/2008
Job Number:	116907	Name of Sampler:	A. Nieto
Project Address:	245 8th Street, Oakland		

MONITORIN	G WELL DA	TA
Well Casing Diameter (2"/4"/6")		2"
Wellhead Condition	OK	▼
Elevation of Top of Casing (feet above msl)		32.00
Depth of Well		22.00
Depth to Water (from top of casing)		15.61
Water Elevation (feet above msl)		16.39
Well Volumes Purged		3
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)		3.2
Actual Volume Purged (gallons)		4.0
Appearance of Purge Water		Clears quickly
Free Product Present?	No	Thickness (ft): -

	GROUNDWATER SAMPLES												
Number of Sampl	es/Container S	Size		Three (3) 40n	nL VOAs								
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments						
8:31	1	20.18	430	2.41	6.84	-11.6	Clear						
	2		447	1.68	6.79	-33.7	Clear						
	3	20.22	435	0.77	6.81	-46.8	Light brown						
8:34	4	20.11	413	0.53	6.79	-54.0	Light brown						

Brown with no hydrocarbon odors noted	

APPENDIX B SOIL GAS FIELD SAMPLING FORMS

NO SOIL GAS FIELD FORMS

QUARTERLY SOIL GAS SAMPLING HAS BEEN TEMPORARILY SUSPENED DURING OPERATION OF THE HVDPE SYSTEM

APPENDIX C

LABORATORY ANALYTICAL REPORTS W/ CHAIN OF CUSTODY DOCUMENTATION

"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #116907; Vic's Auto (Q4,	Date Sampled: 11/07/08
2500 Camino Diablo, Ste. #200	2008)	Date Received: 11/07/08
Walnut Creek, CA 94597	Client Contact: Ricky Bradford	Date Reported: 11/13/08
wallat crook, cri 71377	Client P.O.:	Date Completed: 11/12/08

WorkOrder: 0811279

November 13, 2008

Dear Ricky:

Enclosed within are:

- 1) The results of the 10 analyzed samples from your project: #116907; Vic's Auto (Q4, 2008),
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager

McCampbell Analytical, Inc.

		McCAMPBELL ANALYTICAL INC.												CHAIN OF CUSTODY RECORD																		
		1538 Wille	w Pass	Road, Pit	tsbu	rg, CA	9456	5						T	U	RN Al	RO	UN	D T	IM	ΗE								7.00			P
	Telep	hone: (925) 252	-9262			F	ax: (92	25) 2	252-9	269				EL	DF	Requir	ed?	66	Ves	Г	l No		RUSI		24 F Requ			18 H			HR No	5 DAY
	Report To: Ric			В	ill T	o: sam								EDF Required? Yes No											_	Oth	_	٦	Comn	nents		
		Company: AEI Consultants																				T			\Box			T				
	2500 Camino Diablo, Suite 200																		4													
		lnut Creek, CA				il: rbra	de la companya della companya della companya de la companya della	NAME AND ADDRESS OF THE PARTY O	icons	ulta	ins.	com		<u>@</u>																		
	Project No: 11	25) 944-2899, ex	t. 148		-	(925) 9 ct Nan		_	Auto	(0)	1 2	008		8021																- 1		
			t. Oakla				iic. VI	C S A	×utt	(Q	*, 4	000	_	15C/																		
	Project Location: 245 8 th Street, Oakland, CA 94607 Sampler Signature:												W80																			
	3.2	// METHOL											& MBTEX (SW8015C/8021B)	0						-												
					ner	aine	\vdash		T	+	L	ERV	LD	BTE	0150																	
	SAMPLE ID	FIELD POINT NAME			of Containers	Type Containers								& M	TPH-d (SW8015C)																	
			Date	Time	CC	be C	Water	_	Sludge	Other		HNO,	Other	TPH-g	P-H															-		
	22	1.0			#	Ty	Wat	Ai	S	5 3	HC		ō	TP	TP																	
(+)	MW-1	MW-1	11/7/08	9:45	3	VOA	X			_	()	-		X																	1	
+	MW-2	MW-2		12.59	3	VOA	X			_ 2	()	(X																		
+	MW-3	MW-3		10:40	3	VOA	X			3	₹ 3	ξ.		X								_										
(4)	MW-4	MW-4		1:15	3	VOA	X			3	4 3	Ç.		X																		
(4)	MW-5	MW-5		1030	3	VOA	X			3	¥ >	4		X										_								
(4)	MW-6	MW-6		9:30	3	VOA	X			3	¥ 3	Ç.		X																		
(+)	MW-7	MW-7		12.80	3	VOA	X			_ 2	()	(X								1	_									
(4)	MW-8	MW-8		11:40	3	VOA	X			_ 2	()	<		Х																	Nev	Well
(4)	MW-9	MW-9		7:85	3	VOA	X			12	X 2	<		Х																	Nev	Well
	MW≥10	MW 10			3	₩OA	X			3	¥ 3	€		X																	Not S	ampled
	MW H	- MW-11		_	3	VOA	X			_	¥ 3	+		X										L								ampled
	-MW-12	MW-12			3	₩	X			3	¥ 3	Ç.		X																	-	ampled
(4)	MW-13	MW-13	1	7:50	3	VOA	X			2	X 2	<		Х																	New	Well
	Relinquished By: Date: Time: Received By:											/	-	6	>					00						W	OAS	10	&G	l M	ETALS	OTHER
	Relinquished By:	(fr	Date:	Time:	Received By:									1	ICE	on co	25	4.	7	1			RESE			ON					217103	JIMEN
	recinquisite by:		Date. Time: Received by:								lì	HE	AD SPA	CE	ARS	ENT	, ,	J.	.CC	PPRO	IN	ERS	V	Į	27.20	_						
15	Relinquished By:		Date:	Time:	Rec	eived B	y:	_						lî	DE	CHLOR	INA	TEL	IN	LA	B V	14	PER	SER	VED	IN	LAI	3/	0	_		
	20																															

1534 Willow Pass Rd

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

	g, CA 94565-1701			Work	Order:	0811	279	ClientCode: AEL									
(723) 23	,2 ,202		WriteOn	∠ EDF		Excel	[Fax	[✓ Email		Hard	Сору	Thir	dParty	☐ J-1	flag
	ants o Diablo, Ste. #200 k, CA 94597	cc: PO:		eiconsultants.com s Auto (Q4, 2008)			AE 25 Wa	alnut Cr		4 94597	7)	Dat	uested e Rece e Prini	ived:	5 d 11/07/2 11/07/2	
							ı		Req	1	1	See le	i e	1			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0811279-001	MW-1		Water	11/7/2008 9:45		Α	Α										
0811279-002	MW-2		Water	11/7/2008 12:55		Α										1	
0811279-003	MW-3		Water	11/7/2008 10:40		Α										Ī	
0811279-004	MW-4		Water	11/7/2008 13:15		Α											
0811279-005	MW-5		Water	11/7/2008 10:30		Α											
0811279-006	MW-6		Water	11/7/2008 9:30		Α											
0811279-007	MW-7		Water	11/7/2008 12:40		Α											
0811279-008	MW-8		Water	11/7/2008 11:40		Α											
0811279-009	MW-9		Water	11/7/2008 7:45		Α											
0811279-010	MW-13		Water	11/7/2008 7:50		Α											
Test Legend: 1 G-MB [*] 6 11	TEX_W 2 7 12	PREDF REP	PORT	8				9					_	5 10			
												P	repare	d by: Sa	amantl	ha Arbu	ckle

Comments:

AEI Consultants

Client Name:

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

Date and Time Received:

11/7/2008 6:07:56 PM

Sample Receipt Checklist

Project Name: #116907; Vic's Auto (Q	4, 2008)			Checkli	ist completed and reviewed by:	Samantha Arbuckle
WorkOrder N°: 0811279 Matrix	Water			Carrier:	Client Drop-In	
	Chain of	Custo	ody (C	OC) Informat	<u>tion</u>	
Chain of custody present?	Ye	es 🖸	7	No \square		
Chain of custody signed when relinquished and	d received? Ye	es [/	No 🗆		
Chain of custody agrees with sample labels?	Υe	es 🖸	7	No 🗌		
Sample IDs noted by Client on COC?	Ye	es 🖸	/	No 🗆		
Date and Time of collection noted by Client on Co	OC? Ye	es 🖸	/	No 🗆		
Sampler's name noted on COC?	Υe	es 🖸	/	No 🗆		
	Samp	ole Re	eceipt	<u>Information</u>		
Custody seals intact on shipping container/cool	_	_		No 🗆	NA 🔽	
Shipping container/cooler in good condition?	Υe	es 🖸	/	No 🗆		
Samples in proper containers/bottles?	Υe	es 🖸	/	No 🗆		
Sample containers intact?	Υe	es 🖸	/	No 🗆		
Sufficient sample volume for indicated test?	Υe	es 🖸	7	No 🗌		
<u>Sa</u>	mple Preservat	ion a	ınd Ho	ld Time (HT)	Information	
All samples received within holding time?	Υe		7	No 🗌		
Container/Temp Blank temperature	Co	ooler T	Гетр:	4.7°C	NA 🗆	
Water - VOA vials have zero headspace / no b	ubbles? Ye	es 🖸	/	No 🗆	No VOA vials submitted \Box	
Sample labels checked for correct preservation	n? Ye	es 🖸	/	No 🗌		
TTLC Metal - pH acceptable upon receipt (pH<2)? Ye	es [No 🗆	NA 🗹	
Samples Received on Ice?	Ye	es 🖸	/	No 🗆		
	(Ice Type: \	WET I	CE)			
* NOTE: If the "No" box is checked, see comm	ents below.					
	=====	===	=	====		======
Client contacted:	Date contacted:				Contacted by:	
Comments:						

"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #116907; Vic's Auto	Date Sampled: 11/07/08
2500 Camino Diablo, Ste. #200	(Q4, 2008)	Date Received: 11/07/08
	Client Contact: Ricky Bradford	Date Extracted: 11/10/08-11/12/08
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed 11/10/08-11/12/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0811279

Extraction method. 5w5050b Analytical methods. 5w6021b/6015Cm work Order. 0811279											
Lab ID	Client ID	Client ID Matrix TPH(g)		MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	
001A	MW-1	W	15,000,d1	290	460	1400	84	2700	10	107	
002A	MW-2	W	680,d1	72	110	38	3.1	75	1	104	
003A	MW-3	W	150,d1	ND	0.70	6.5	1.3	26	1	89	
004A	MW-4	W	100,d1	ND	2.8	7.7	1.1	15	1	92	
005A	MW-5	W	5000,d1	ND<17	66	400	29	1200	3.3	98	
006A	MW-6	W	54,000,d1	ND<500	610	7000	1700	8900	100	101	
007A	MW-7	W	4200,d1	ND<50	580	570	44	400	10	100	
008A	MW-8	W	430,d1	ND	2.9	26	6.1	86	1	101	
009A	MW-9	W	53,000,d1	ND<500	13,000	350	1800	3100	100	105	
010A	MW-13	W	61,d1	380	2.8	1.4	0.55	0.87	1	103	
	rting Limit for DF =1; eans not detected at or	W	50	5	0.5	0.5	0.5	0.5	μ	g/L	
	eans not detected at or we the reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005	mg	g/Kg	

^{*} water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in μ g/wipe, product/oil/non-aqueous liquid samples in mg/L.

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

⁺The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 39532 WorkOrder: 0811279

EPA Method SW8021B/8015Cm Extraction SW5030B Spiked Sample ID: 0811275-001A												
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	1
Analyte	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)	ND	60	107	104	2.39	89.4	91.4	2.21	70 - 130	20	70 - 130	20
MTBE	ND	10	99.1	94.2	5.07	98.8	89.9	9.44	70 - 130	20	70 - 130	20
Benzene	ND	10	113	113	0	86.6	95.1	9.37	70 - 130	20	70 - 130	20
Toluene	ND	10	112	114	2.21	96.6	106	9.42	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	116	119	2.37	94.7	105	9.92	70 - 130	20	70 - 130	20
Xylenes	ND	30	114	113	0.615	105	115	9.10	70 - 130	20	70 - 130	20
%SS:	97	10	91	97	7.36	96	103	6.60	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 39532 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0811279-001A	11/07/08 9:45 AM	11/12/08	11/12/08 6:49 AM	0811279-002A	11/07/08 12:55 PM	11/12/08	11/12/08 1:34 AM
0811279-003A	11/07/08 10:40 AM	11/10/08	11/10/08 8:53 PM	0811279-004A	11/07/08 1:15 PM	11/10/08	11/10/08 9:54 PM
0811279-005A	11/07/08 10:30 AM	11/12/08	11/12/08 8:49 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

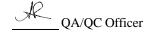
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 39537 WorkOrder: 0811279

EPA Method SW8021B/8015Cm Extraction SW5030B Spiked Sample ID: 0811320-002B												
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
Analyto	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex ^f)	ND	60	102	106	3.43	80.5	83.8	3.99	70 - 130	20	70 - 130	20
MTBE	ND	10	97.2	112	14.2	112	101	10.6	70 - 130	20	70 - 130	20
Benzene	ND	10	111	111	0	93.2	86.4	7.57	70 - 130	20	70 - 130	20
Toluene	ND	10	109	111	1.74	104	94.5	9.50	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	114	114	0	100	90.1	10.4	70 - 130	20	70 - 130	20
Xylenes	ND	30	111	111	0	112	99.7	11.5	70 - 130	20	70 - 130	20
%SS:	93	10	95	99	3.46	97	97	0	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 39537 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0811279-006A	11/07/08 9:30 AM	11/12/08	11/12/08 12:18 AM	0811279-007A	11/07/08 12:40 PM	11/12/08	11/12/08 9:19 AM
0811279-008A	11/07/08 11:40 AM	11/12/08	11/12/08 3:35 AM	0811279-009A	11/07/08 7:45 AM	11/12/08	11/12/08 6:19 AM
0811279-010A	11/07/08 7:50 AM	11/11/08	11/11/08 1:26 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

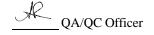
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #116907; Vic's Auto (Q4,	Date Sampled: 11/07/08
2500 Camino Diablo, Ste. #200	2008)	Date Received: 11/07/08
Walnut Creek, CA 94597	Client Contact: Ricky Bradford	Date Reported: 11/13/08
Wallat Crook, Cri 71077	Client P.O.:	Date Completed: 11/18/08

WorkOrder: 0811279

November 18, 2008

Dear	Ric	ky:

Enclosed within are:

- 1) The results of the 1 analyzed sample from your project: #116907; Vic's Auto (Q4, 2008),
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager

McCampbell Analytical, Inc.

McCAMPBELL ANALYTICAL INC.							CHAIN OF CUSTODY RECORD									,															
	1538 Wille	ow Pass	Road, Pi	ttsb	arg, C	A 945	65						7	TUR	N A	RC	U	ND	TI	MI	C							ŀ			1
Telen	hone: (925) 252	-9262	•		F	ax: (9	25)	252-	9269	0			F2	DED			0 6	-		_	BT.	R	USH		4 HR		48 I			2 HR	5 DAY
Report To: Ric		3202	F	r III	o: san		20)			_		\dashv	E.	DF R	cequ	irea	$\overline{}$	naly		_		+	PDI	Re	equir	ea?	_	her	_	No	nonte
Company: AE				,,,,,	U. San	ic							_		-	Т	1	lary	313	ICC	ues		П	Т	T	+		nei		Comi	nents
	00 Camino Diab	lo, Suite	200			5000 OIL	-11-	1 - 7 -						1	200				1.			1									
W	alnut Creek, CA	94597	E	-Ma	il: rbr	adford	@ac	eicons	sulta	tns.	com				SMS/																
	25) 944-2899, ex	t. 148			(925)								(SW8015C/8021B)		3																
	Project No: 116907 Project Name: Vic's Auto (Q4, 200 Project Location: 245 8 th Street, Oakland, CA 94607						008)		C/80	0	300																				
	27.5	t, Oakla	ind, CA	1460	7							-	8015	6	er P.B.																
Sampler Signa	ture:	r 7	fur				_	_	_	ME	тно		SWS					1								1					
		SAM	PLING	2	ers	M	ATI	RIX			SERV			00	SH.																
SAMPLE ID	FIELD POINT NAME	Date	Time	# of Containers	Type Containers	Water	Air	Sludge	Other	HCI	HNO,	Other	TPH-g & MBTEX	TPH-d (SW8015C)	ONE STO 18																
MW-1	MW-1	11/7/08	9:45	3	VOA	х			1	X 2	X		X				T	\top	\top	1	\top		\Box	\top	1	$^{+}$	\vdash				
MW-2	MW-2	1	12:55	3	VOA	х				X X	X		X				T		+	+	1		\Box	\forall		\vdash					-
MW-3	MW-3		10:40	3	VOA	Х	+		-	X 2	-		X					1	t		-			+		\vdash	\vdash				
MW-4	MW-4		1:15	3	VOA	Х	\vdash		_	X 3	-		X		+	+		+	+	1	1				+	\vdash	\vdash				
MW-5	MW-5		10:30	3	VOA	Х	1		_	X 3	_		X		1	+	t	1	+	+	+					1					
MW-6	MW-6		9:30	3	VOA	Х	_		1;	X 7	Ç.		X				T	1	T		\perp			+	+	+					
MW-7	MW-7		12:40	3	VOA	X	\vdash		7	x y	ζ.		X				T	1	T		1				\top	\vdash					
MW-8	MW-8		11:40	3	VOA	Х			1	x 2	K		X				T	1	T						+	\top				Nev	Well
MW-9	MW-9		7:40	3	VOA	X		\Box	1	X 2	ζ.		X	1	X		T			_	\vdash					\vdash				Nev	Well
MW=T0	MW-10-			3	₩	X		\vdash	1;	X 3	Ç	П	X		1		T		T	+	+			1	+	†				_	ampled
MW H	-M₩=171			3	VOA	X			3	X >	Ç.		×													T				-	ampled
-MW-12	MW-12			3	VOA	X		\Box	3	X 3	ζ		X							1 8	1					†				-	ampled
MW-13	MW-13	1	7:50	3	VOA	X	T		1	X >	<		X			1			T	1	1			1	\top	†	T				Well
Relinquished By: Relinquished By:	New	Date: 11/7/08 Date:	Time:	1	eived B	W	10	~	_	2		ICE/1º VES 4.7°C PRESERVATION O&G METALS GOOD CONDITION APPROPRIATE CONTAINERS																			
Relinquished By:		Date:	Time:	Rec	eived B	y:					DECHLORINATED IN LAB THE PERSERVED IN LAB																				

1534 Willow Pass Rd Pittsburg, CA 94565-1701

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

(925) 252-9262				1	WorkOr	der:	081127	A	C	ClientC	ode: A	EL				
		Write	On EDF		Excel	[Fax	5	✓ Email		Hard	Сору	Third	Party	☐ J-1	flag
eport to:					E	Bill to:						Req	uested	TAT:	5	days
Ricky Bradford AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597 (925) 283-6000 FAX (925) 944-2895	Email: cc: PO: ProjectNo:		eiconsultants.cor s Auto (Q4, 2008			AE 250 Wa	alnut Cr	ıltants iino Dia eek, CA	blo, Ste 94597 sultants			Dat	te Recei te Add-O te Print	On:	11/07 11/13 11/13	/2008
								Requ	ested T	ests (See leg	end be	elow)			
ab ID Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12

Test Legend:

0811279-009

1 MTBE_W	2	3	4	5
6	7	8	9	10
11	12]		

Prepared by: Samantha Arbuckle

Comments: MTBE added on 11/13/08 on a std tat per R.B/email

MW-9

Water

11/7/2008 7:45

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #116907; Vic's Auto	Date Sampled: 11/07/08
2500 Camino Diablo, Ste. #200	(Q4, 2008)	Date Received: 11/07/08
	Client Contact: Ricky Bradford	Date Extracted: 11/14/08
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed 11/14/08

Methyl tert-Butyl Ether*

Extraction method SW5030B Analytical methods SW8260B Work Order: 0811279

Extraction method	SW5030B	Analytic	lytical methods SW8260B Work C		112/9
Lab ID	Client ID	Matrix	Methyl-t-butyl ether (MTBE)	DF	% SS
009B	MW-9	W	400	50	91
	porting Limit for DF =1;	W	0.5	με	g/L
	means not detected at or bove the reporting limit	S	NA		A

* water and vapor samples are reported in μ g/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP
extracts are reported in mg/L, wipe samples in ug/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 39618 WorkOrder 0811279

EPA Method SW8260B	5030B					S	piked San	nple ID:	: 0811396-0	002C		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
, and y to	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Methyl-t-butyl ether (MTBE)	ND	10	101	106	5.44	85.3	86.8	1.86	70 - 130	30	70 - 130	30
%SS1:	88	25	90	90	0	97	99	1.50	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 39618 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0811279-009B	11/07/08 7:45 AM	1 11/14/08	11/14/08 9:46 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

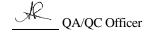
% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #116907; Vic's Auto (Q4, 2008)	Date Sampled:	11/07/08
2500 Camino Diablo, Ste. #200	2008)	Date Received:	11/07/08
Walnut Creek, CA 94597	Client Contact: Ricky Bradford	Date Reported:	11/13/08
(and cross, 622 > 163 /	Client P.O.:	Date Completed:	11/18/08

WorkOrder: 0811279

November 20, 2008

Dear	Ric	ky:

Enclosed within are:

- 1 analyzed sample from your project: #116907; Vic's Auto (Q4, 2008), 1) The results of the
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager

McCampbell Analytical, Inc.

1985 E 11	McCAM	PBELI	L ANAI	LYI	TICA	LIN	VC.				1			3.8				C	HA	II	1)F	CI	US'	ГС	D	YI	RE	CC	RI	D		
179	1538 Wille	ow Pass	Road, Pi	ttsbu	ırg, C	A 945	565							T	U	RN	AR	OUN	(D	ΤI	MI	C				Ļ	-			*			H
Telen	hone: (925) 252	-9262			F	ax: (925	0 25	52-9	269				EL	NE.	Dag	uired	19 6	CV	00	п	No	F	RUSI		24			48 H			HR	5 DAY
Report To: Ric		7202	В	T III	o: san		-	, ==			_		_	EL	л	Req	uirec		aly				t	LI)F J	xeq.	uire	_	Otl	Yes	٦	No Comn	nents
Company: AE					o. san									П		150		1	1	313		T	Ť	T	Т	T				T	\forall	Comi	ichts
	00 Camino Diab	lo, Suite	200	- 1												SO 25	10			9.2											- 1		
Wa	alnut Creek, CA	94597	E	-Ma	il: rbr	adfor	d@	aeic	onsu	ultat	ns.c	om				N Z	1														-		
	25) 944-2899, ex	t. 148			(925)	_	-	_						(SW8015C/8021B)		13/	- 08			1											- 1		
Project No: 11					ct Nar	ne: '	Vie'	's A	uto	(Q4	1, 20	008)		C/80		350	=														-		
	on: 245 8th Stree	et, Oakla	ind, CA 9	1460	7	-		7777					-	8015		30	1														-		
Sampler Signa	ture:		/UN					-	_	_	ME	НО	n	SW		OG	0														-		
		SAMI	PLING	sr.s	lers	N	1A7	FRI	X			ERV			50	12/2	8200							,							-		
SAMPLE ID	FIELD POINT NAME	Date	Time	# of Containers	Type Containers	Water	Soil	Air	Other	Ice	HCI	HNO ₃	Other	TPH-g & MBTEX	TPH-d (SW8015C)	VTBE 154 8	MABE BYR													-			
MW-1	MW-1	1//7/08	9:45	3	VOA	Х				Х	X			Х		dom 12																	
MW-2	MW-2		12:55	3	VOA	X				X	X			X																			
MW-3	MW-3		10:40	3	VOA	Х				X	X			Х																			
MW-4	MW-4		1:15	3	VOA	Х				X	X			Х													-						
MW-5	MW-5		10:30	3	VOA	X				×	X			X								T											
MW-6	MW-6		9:30	3	VOA	Х				×	X			Х		-	X						T										
MW-7	MW-7		12:40	3	VOA	Х			1	X	X			х			7			T	T		T							\top	7		
MW-8	MW-8		11:40	3	VOA	Х	+		+	X	X			Х			\top						T							\top	1	New	Well
MW-9	MW-9		7:40	3	VOA	X	1			X	X			Х		X					1		T							T		New	Well
MW≥10	MW 10-			3	VOA	X	1			×	X			×								T	T							T	7	Not S	ampled
MW H	-MW=11			3	VOA	X	+		1	×	X			X			1			T			T								1	-	ampled
-MW-12	MW-12			3	VOA	X		\top	T	×	X			X						T	T		T								1	Not S	ampled
MW-13	MW-13	1	7:50	3	VOA	Х			-	X	X			X								T										New	Well
Relinquished By: Relinquished By:	New	Date:	Time:	1	eived B	1		a		-	1	/			CE	/t°_	65	34	.7	00						ATIC	ON_	OAS	o	&G	М	ETALS	ОТНЕВ
Relinquished By:		Date:	Time:	Rec	eived B	y:			_	_		_		H	IEA	DS	PACI ORIN	E AB	SEN	Т	1		CO	NTA	INI	ERS VED	V	1	3/	٥			

1534 Willow Pass Rd

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

—/(A)	rg, CA 94565-1701 52-9262				1	WorkOr	der: 08	81127	В		Client(Code: A	EL				
			Write	eOn 🗹 EDF		Excel		Fax		🗸 Email		Hard	Сору	Thi	irdParty	□	J-flag
	ants no Diablo, Ste. #200 ek, CA 94597	cc: PO:		eiconsultants.con 's Auto (Q4, 2008		В	AEI (2500 Walr	Cam	ıltants iino Dia eek, C <i>i</i>	ablo, St A 94597 nsultant	,)	Dai Dai	•		11/0 11/1	5 days 07/2008 14/2008 14/2008
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	Req	uested 5	Tests (See leg	gend b	elow)	10	11	12
	T		T	_	ПОІЦ		2	3	*	_ J					<u> </u>		<u> </u>
0811279-006	MW-6		Water	11/7/2008 9:30	ΙШ	В										<u></u>	

Test Legend:

1	MTBE_W	2	3	4	5	
6		7	8	9	10	-
11		12				

Prepared by: Samantha Arbuckle

Comments: MTBE added on 11/13/08 on a std tat per R.B/email--MTBE added 11/14/08 STD.TAT per email.

"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #116907; Vic's Auto	Date Sampled: 11/07/08
2500 Camino Diablo, Ste. #200	(Q4, 2008)	Date Received: 11/07/08
	Client Contact: Ricky Bradford	Date Extracted: 11/17/08
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed 11/17/08

Methyl tert-Butyl Ether*

Extraction method SW5030B Analytical methods SW8260B Work Order: 0811279

traction method SW5	030B	Analytical me	thods SW8260B	Work Order: 08	11279
Lab ID	Client ID	Matrix	Methyl-t-butyl ether (MTBE)	DF	% S
006B	MW-6	w	ND<5.0,a3	10	101
					-
	ng Limit for DF =1;	W	0.5	μ	g/L
	ns not detected at or	S	NA	N	ΙA

above the reporting limit	5	1471	1171
* water and vapor samples are reported in µg/L, soil/slu-	dge/solid samp	les in mg/kg, product/oil/non-aqueous liquid samples and al	1 TCLP & SPLP
extracts are reported in mg/L, wipe samples in µg/wipe.	,		

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

a3) sample diluted due to high organic content / matrix interference.

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 39658 WorkOrder 0811279

EPA Method SW8260B	Extra	ction SW	5030B					S	piked San	nple ID:	: 0811447-0	003C
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
, and y to	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Methyl-t-butyl ether (MTBE)	ND	10	106	105	0.922	104	101	2.97	70 - 130	30	70 - 130	30
%SS1:	102	25	101	105	3.06	102	102	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 39658 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0811279-006B	11/07/08 9:30 AM	11/17/08	11/17/08 8:08 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

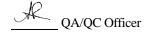
% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



McCampbell Analytical, Inc. "When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #116907; Vic's	Date Sampled: 12/02/08
2500 Camino Diablo, Ste. #200	Automotive	Date Received: 12/02/08
Walnut Creek, CA 94597	Client Contact: Ricky Bradford	Date Reported: 12/09/08
Wallat Crook, CH 71077	Client P.O.: WC081081	Date Completed: 12/08/08

WorkOrder: 0812051

December 09, 2008

Dear l	Ricky:
--------	--------

Enclosed within are:

- 3 analyzed samples from your project: #116907; Vic's Automotive, 1) The results of the
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager

McCampbell Analytical, Inc.

	McCA	MPBEL	L ANA	LY	TICA	LI	NC.						T					(CH	A	IN	0	F (CU	ST	O	DY	Y F	RE	CC	R	D		
	1538 W	Villow Pass	Road, F	ittsb	urg, C	A 94	565							T	UR	N.	AR	Ol	JN	D T	II	1E						h						
Telen	hone: (925)	252-9262			F	ax:	925)	252	2-92	69				EL	FR		. i e o	42		Vo		T. N			JSH PD		24 F			48 H	IR Yes		2 HR lNo	5 DA
Report To: Ric				Rill '	To: san			_		08	16	8)	+	ED	'F K	eq	une		Ana					_	r Di	FK	equ	III e		Otl		-	Com	ments
Company: AE				Dill	10. 341	iic	10	*	VO C	~ 0	10	01	+	T						ilys		cqu	CSL							Oti	101		Com	nents
	00 Camino D		e 200													RS			rved		0.8)													
	alnut Creek,			E-M	ail: rbr	adfo	rd@a	eico	nsul	tatn	s.co	m		E		ò	E		rese		A 20			Zn)			Se)					(pay		
Telephone: (9	25) 944-2899			Fax:	(925)	944-	2895					100	54	150		dn-u	M-SC		O p	8.	(E)			ž			56 26		0B)			eser		
AEI Project N					ect Nai	me:	Vic's	Au	ton	otiv	e		9	3/80		Clea	HE		E	7 200	ese	0		Hg			C, H	Zn)	/826			dun		
Project Locati		b		A 94	607								- 5	0211		e e	999)PE	EP/	ngar	S. D	_	u. Po			3	7p, Z	(SW			per (
Sampler Signa	ture: 💢	m Sig		_		_				_			- 0.00	SWS		lca	00	8.00	Ħ	ron	, Ma	40C	omu	0,0	00.8)		Ba,	ž	list		10	Am		
	0	SAMPI	LĬNG	2	ers	1	MAT	RIX	(HOD RVE	D	EX ((Cm)	w/Si	ase H	1 (B2	50 m	I (sno	sium	M25	ate C	(Cd.	PA 2		g, As	d, Cr,	arget	0B)	W10	Liter		
SAMPLE ID	FIELD POINT NAME	Date	Time	# of Containers	Type Containers	Water	Soil	Sludge	Other				Other Canada	TPH-g & MBTEX (SW8021B/8015Cm)	TPH-d (SW8015Cm)	TRPH (E418.1) w/ Silica Gel Clean-up by IRS	Total Oil & Grease HC (1664 HEM-SGT)	*Dissolved Lead (E200.8)	*For Lead Use 250 ml HDPE (HNO ₃ preserved)	Dissolved (Ferrous) Iron (EPA 200.8)	Calcium, Magnesium, Manganese (EPA 200.8)	TDS and TSS (SM2540C & D)	Heterotrophic Plate Count	EBMUD 7 Metals (Cd, Cr, Cu, Pb, Hg,	CAM 17 Metals (EPA 200.8)	PP13 Metals	RCRA 8 Metals (Ag, As, Ba, Cd, Cr, Hg, Pb,	LUFT 5 Metals (Cd, Cr, Ni, Pb,	HVOCs - 8010 target list (SW8260B)	MTBE (SW8260B)	**Flash Point (SW1010)	**For FP Use 1 Liter Amber (unpreserved)		
INF	INF	12-2-08	1150	3		X				X	X			X																				
POST-AS	POST-AS	12-2-08	1140	3		X				X	X			X																				
POST-C1	POST-C1					X				X	X		1																					
EFF	EFF	12-2-08	113D	3		X				X	X		1	X																				
Relinquished By:	38	Date: 12/2/08/	Time:	1	reived By	110		2/		8				It G	CE/t's	, <u>e</u>	3. 2	2 DIT	TION	N	_) <	es			SER			N_	OAS	0	&G	M	HETALS	ОТНЕ
Relinquished By:		Date:	Time:	Rec	eived By	:					_		-	H	EAI ECH) SI	PAC	E A	BSI	ENT	LAT	10_ B_	5 6	ON	TAI	INE	RS_		EAE	? \ B_)	_		

1534 Willow Pass Rd (925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsburg, CA 94565-1701 WorkOrder: 0812051 ClientCode: AEL WriteOn **✓** EDF Excel Fax ✓ Email HardCopy ThirdParty J-flag Bill to: Report to: Requested TAT: 5 days rbradford@aeiconsultants.com Denise Mockel Ricky Bradford Email: **AEI Consultants AEI Consultants** cc: Date Received: 12/02/2008 PO: 2500 Camino Diablo, Ste. #200 WC081081 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597 ProjectNo: #116907; Vic's Automotive Walnut Creek, CA 94597 Date Printed: 12/02/2008 (925) 283-6000 FAX (925) 283-6121 dmockel@aeiconsultants.com Requested Tests (See legend below) 2 3 5 6 7 8 9 10 12 Lab ID Client ID Matrix Collection Date Hold 1 11 0812051-001 INF Water 12/2/2008 11:50 Α Α 0812051-002 POST-AS 12/2/2008 11:40 Α Water 0812051-003 **EFF** Water 12/2/2008 11:30 Α

Test Legend:

1 G-MBTEX_W	2 PREDF REPORT	3	4	5
6	7	8	9	10
11	12			
				Prepared by: Rosa Venegas

Comments:

Sample Receipt Checklist

Client Name:	AEI Consultants				Date	and Time Received:	12/2/08 4:	15:01 PM
Project Name:	#116907; Vic's Automo	tive			Chec	cklist completed and	reviewed by:	Rosa Venegas
WorkOrder N°:	0812051 Matrix	<u>Water</u>			Carri	ier: <u>Client Drop-In</u>		
		<u>Chain c</u>	of Cu	stody (C	OC) Inform	nation_		
Chain of custody	present?		Yes	V	No 🗆			
Chain of custody	signed when relinquished ar	nd received?	Yes	V	No 🗆			
Chain of custody	agrees with sample labels?		Yes	✓	No 🗌			
Sample IDs noted	by Client on COC?		Yes	V	No \square			
Date and Time of	collection noted by Client on C	COC?	Yes	~	No 🗆			
Sampler's name r	noted on COC?		Yes	✓	No 🗆			
		<u>Sa</u>	mple	Receipt	Informatio	o <u>n</u>		
Custody seals int	tact on shipping container/coo	oler?	Yes		No 🗆		NA 🔽	
Shipping containe	er/cooler in good condition?		Yes	V	No 🗆			
Samples in prope	er containers/bottles?		Yes	~	No 🗆			
Sample containe	rs intact?		Yes	✓	No 🗆			
Sufficient sample	e volume for indicated test?		Yes	✓	No 🗌			
	<u>S</u> :	ample Preserv	<u>vatior</u>	n and Ho	old Time (H	T) Information		
All samples recei	ved within holding time?		Yes	✓	No 🗌			
Container/Temp E	Blank temperature		Coole	er Temp:	8.2°C		NA 🗆	
Water - VOA vial	ls have zero headspace / no	bubbles?	Yes	✓	No 🗆	No VOA vials subn	nitted	
Sample labels ch	necked for correct preservation	n?	Yes	✓	No 🗌			
TTLC Metal - pH	acceptable upon receipt (pH<	2)?	Yes		No 🗆		NA 🔽	
Samples Receive	ed on Ice?		Yes	✓	No 🗆			
		(Ice Type	: WE	TICE)			
* NOTE: If the "N	No" box is checked, see com	ments below.						
	=======			===:				======
Client contacted:		Date contacte	ed:			Contacted	d by:	
Comments:								

AEI Consultants	Client Project ID: #116907; Vic's Automotive	Date Sampled: 12/02/08
2500 Camino Diablo, Ste. #200	Automotive	Date Received: 12/02/08
	Client Contact: Ricky Bradford	Date Extracted: 12/05/08-12/08/08
Walnut Creek, CA 94597	Client P.O.: WC081081	Date Analyzed 12/05/08-12/08/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Analytical methods SW8021B/8015Cm Extraction method SW5030B Work Order: 0812051 Lab ID Client ID Matrix TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes DF % SS 001A 1700 INF W 8300,d1 150 140 460 60 90 002A W ND 1 103 POST-AS ND 6.3 ND ND 1.5 003A EFF W ND ND ND ND 1 98 ND 17

water and vapor samples and all ICLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe,
oroduct/oil/non-aqueous liquid samples in mg/L.

50

5

0.05

0.5

0.005

0.5

0.005

0.5

0.005

0.5

0.005

 μ g/L

mg/Kg

Reporting Limit for DF = 1;

ND means not detected at or

above the reporting limit

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

⁺The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 39831 WorkOrder: 0812051

EPA Method SW8021B/8015Cm Extraction SW5030B Spiked Sample ID: 0812078-002A													
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	1	
, and, y to	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH(btexf	ND	60	102	99.9	2.05	104	98.6	5.67	70 - 130	20	70 - 130	20	
MTBE	ND	10	91.5	95.9	4.73	101	98.6	2.66	70 - 130	20	70 - 130	20	
Benzene	ND	10	89.5	94.1	4.97	97.6	93.4	4.34	70 - 130	20	70 - 130	20	
Toluene	ND	10	92.5	94.1	1.69	96.4	93	3.56	70 - 130	20	70 - 130	20	
Ethylbenzene	ND	10	99.1	98.3	0.791	100	96.7	3.62	70 - 130	20	70 - 130	20	
Xylenes	ND	30	110	109	0.756	110	107	2.71	70 - 130	20	70 - 130	20	
%SS:	94	10	90	92	1.69	95	91	3.91	70 - 130	20	70 - 130	20	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 39831 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0812051-001A	12/02/08 11:50 AM	12/05/08	12/05/08 2:19 AM	0812051-002A	12/02/08 11:40 AM	12/08/08	12/08/08 5:34 PM
0812051-003A	12/02/08 11:30 AM	12/05/08	12/05/08 3:58 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

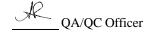
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #116907; Vic's	Date Sampled: 12/02/08
2500 Camino Diablo, Ste. #200	Automotive	Date Received: 12/02/08
Walnut Creek, CA 94597	Client Contact: Ricky Bradford	Date Reported: 12/09/08
Wallat Crook, CH 71077	Client P.O.: WC081080	Date Completed: 12/09/08

WorkOrder: 0812050

December 09, 2008

Dear	Ricl	ky:

Enclosed within are:

- 1) The results of the 11 analyzed samples from your project: #116907; Vic's Automotive,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager

McCampbell Analytical, Inc.

08/2050

McCAMPBELL ANALYTICAL INC.						CHAIN OF CUSTODY RECORD																												
	1538 Willo	w Pass l	Road, Pi	ttsbu	ırg, C	A 94	565						-	T	UF	N.	AR	0	UN	DI	TIN	1E												
Telen	hone: (925) 252		*****				(925	25	2-92	269			-	EI	DE I	200		.19		/wa	. г	T. NI			SH		24 F			48 H			2 HR	5 DAY
Report To: Ric		7202	F	BIII T	o: san				WC		210	80		EI	JF I	ceq	uire	ear		Yealys		_		_	PDI	R	equ	ire	11.	Ot			No Comr	nents
	Company: AEI Consultants						1				_		-	alys	15 14	Cqu	CSL							Oti	ici									
	00 Camino Diab	lo, Suite	200													IRS	& Grease (5520 E&F/B&F)		preserv															- ug/L and ppmv
	alnut Creek, CA			-Ma	il: rbr	adfo	rd@a	eic	onsu	ltatı	ns.co	m		(iii)		p by	&F/															hov		ld p
Telephone: (9)	The state of the s				(925)								4	015C		an-n	20 E		w/ HNO ₃										(SW8260B)			unpreserved		an
AEI Project N					ct Nar	ne:	Vic'	s A	uton	noti	ve		-	B/8(0	e (55		/M :										W82			Idun		l/gn
	on: 245 8th Str			946	007			- 17					\dashv	(SW8021B/8015C		w/ Silica Gel Clean-up by IRS	ireas	200.8)	HDPE													nber		
Sampler Signature: SAMPLING & 2 MATRIX DESCRIPTION OF THE PROPERTY OF THE PROP						\exists	(SW	9	Silica	8 0	7E2(ml H										et lis		010	r An		unit							
SAMPLE ID SAMPLING Sampling Solid								LEX	5Cm)	/M (n Oil	(TTLC)	250 ml								00		targ	60B)	SWI	Lite		oth						
SAMPLE ID	FIELD POINT			tain	ntai									MBTI	W801	118.1	oleun		Use								victal	Metals	- 8010 target list	(SW8260B)	oint (Use 1		Report in both units
SAMILEID	NAME	Date	Time	Con	ပိ	er		90	e e			3	12	8	(S) p	1.054	Petr	l Le	Lead								17.	10	Cs-	E (S	sh P	FP		ort
	. A.			Jo #	Lype	Water	Soil	Sludge	Other	Ice	HCI	HNO3	Other	TPH-g	TPH-d (SW801	TRPH (E418.1)	Total Petroleum Oil	*Total Lead	*For Lead Use								CAM 17 Metals	LUFT	HVOCs -	MTBE	**Flash Point (SW1010)	**For FP Use 1 Liter Amber	90	Rep
MW-1S	MW-1S	12-2-08	1050	1	ТВ		_	X		\vdash			+	X										+	+	+								X
MW-2S	MW-2S		1045	1	ТВ		_	X	+				1	Ì										\forall										X
MW-5S	MW-5S		1015	1	ТВ		-	X	+				\exists	1																				×
MW-6S	MW-6S		1020	1	ТВ		_	X		T			\neg											1										X
MW-7S	MW-7S		1025	1	ТВ		1	X						1											T									X
MW-10S	MW-10S		1030	1	TB		1	X							1																			X
MW-11S	MW-11S		1035	1	TB		7	K																										X
MW-12S	MW-12S		1040	1	TB		7	K													-													X
POSTD	POSTD.			1	TB			K						1																				X
PRED	PRED		1100	1	TB		2	K						1																				X
AS	AS		1055	1	TB		2	K																										X
STACK	STACK	4	11.05	1	TB		2	K						¥																				X
Relinquished By:	2000	Date:		Rec	cived B	7				/	=																					1	ī	
20m 866 1220 1430 Muner V 8			\sqcup	ı	CE/	t°	1	4			0	1	P	RES	SER	VA'	TIC		OAS	0	&G	N	IETALS	OTHER										
Relinquished By: Date: Time: Received By:					(GOC	D C			TIO		e.	JA	A	PPI	ROP	RIA	ATE		0	5													
Relinquiched Ry				\dashv							ENT IN		B	C		TAI RSF			IN	LAI	3													
Relinquished By: Date: Time: Received By:				DECHLORINATED IN LAB PERSERVED IN LAB																														
				_1																														

1534 Willow Pass Rd

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Pittsbur (925) 25	g, CA 94565-1701 52-9262					WorkOrder: 0812050 ClientCo							EL				
,			WriteOn	✓ EDF		Excel		Fax		✓ Email		Hard	Сору	Thir	dParty	J-flag	
Report to: Ricky Bradfo	ord	Email:	rbradfard@aa	iconsultants.com			Bill to:	enise Mo	ookol				Requ	uested	TAT:	5 c	days
AEI Consultants cc: 2500 Camino Diablo, Ste. #200 PO: WC081080 Walnut Creek, CA 94597 ProjectNo: #116907; Vic (925) 283-6000 FAX (925) 944-2895							AE 25 W	El Consu 00 Cam alnut Cre	ultants iino D eek, (s riablo, St CA 94597 onsultan	7			e Rece e Prini		12/02/2 12/02/2	
Lat ID	Olland ID		Madala	Oallandan Data						quested				1			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0812050-001	MW-1S		Air	12/2/2008 10:50		Α	Α										
0812050-002	MW-2S		Air	12/2/2008 10:45		Α											
0812050-003	MW-5S		Air	12/2/2008 10:15		Α											
0812050-004	MW-6S		Air	12/2/2008 10:20		Α											
0812050-005	MW-7S		Air	12/2/2008 10:25		Α											
0812050-006	MW-10S		Air	12/2/2008 10:30		Α											
0812050-007	MW-11S		Air	12/2/2008 10:35		Α											
0812050-008	MW-12S		Air	12/2/2008 10:40		Α											
0812050-009	PRED		Air	12/2/2008 11:00		Α											
0812050-010	AS		Air	12/2/2008 10:55		Α							<u> </u>				
0812050-011	STACK		Air	12/2/2008 11:05		Α											
Test Legend:																	
1 G-MBT	EX_AIR 2	PREDF R	EPORT	3				4					Γ	5			
6	7			8	-			9						10			
11	12												_				
-	npIDs: 001A, 002A, 003A, 004	1A, 005A, 00	6A, 007A, 008A,	009A, 010A, 011A	contai	n testgr	oup.						Prepa	red by:	Rosa '	Venegas	<u>s</u>

Comments:

Sample Receipt Checklist

Client Name:	AEI Consultants			Date a	nd Time Received:	12/2/08 3:	28:55 PM
Project Name:	#116907; Vic's Automo	tive		Check	list completed and r	eviewed by:	Rosa Venegas
WorkOrder N°:	0812050 Matrix	<u>Air</u>		Carrier	: Client Drop-In		
		Chain of Cu	istody (COC) Informa	<u>tion</u>		
Chain of custody	present?	Yes	V	No 🗆			
Chain of custody	signed when relinquished and	d received? Yes	V	No 🗆			
Chain of custody	agrees with sample labels?	Yes	V	No 🗌			
Sample IDs noted	by Client on COC?	Yes	V	No \square			
Date and Time of	collection noted by Client on C	OC? Yes	V	No 🗆			
Sampler's name r	noted on COC?	Yes	V	No 🗆			
		Sample	Receip	t Information			
Custody seals int	tact on shipping container/coo	er? Yes		No 🗆		NA 🔽	
Shipping containe	er/cooler in good condition?	Yes	V	No 🗆			
Samples in prope	er containers/bottles?	Yes	~	No \square			
Sample containe	rs intact?	Yes	✓	No \square			
Sufficient sample	volume for indicated test?	Yes	✓	No 🗆			
	<u>Sa</u>	mple Preservatio	n and H	old Time (HT)	Information		
All samples recei	ved within holding time?	Yes	✓	No 🗆			
Container/Temp E	Blank temperature	Coole	er Temp:			NA 🗹	
Water - VOA vial	s have zero headspace / no b	ubbles? Yes		No \square	No VOA vials subm	itted 🗹	
Sample labels ch	necked for correct preservation	n? Yes	V	No 🗌			
TTLC Metal - pH	acceptable upon receipt (pH<2	Yes		No 🗆		NA 🔽	
Samples Receive	ed on Ice?	Yes		No 🔽			
* NOTE: If the "N	lo" box is checked, see comm	nents below.		· — — — —			
Client contacted:		Date contacted:			Contacted	by:	
Comments:							

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #116907; Vic's Automotive	Date Sampled: 12/02/08
2500 Camino Diablo, Ste. #200	Automotive	Date Received: 12/02/08
	Client Contact: Ricky Bradford	Date Extracted: 12/02/08-12/04/08
Walnut Creek, CA 94597	Client P.O.: WC081080	Date Analyzed 12/02/08-12/04/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0812050 Lab ID Client ID Matrix TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes DF % SS 001A MW-1S A 12,000,d1 ND<50 180 560 480 101 002A MW-2S A 11,000,d1 ND<50 210 650 61 550 20 120 003A MW-5S 6900,d1 ND<100 ND<10 110 13 350 40 A 84 004A MW-6S Α 2500,d1 ND<50 10 49 6.4 130 20 108 005A MW-7S 14,000,d1 ND<100 140 340 18 470 40 120 Α 006A MW-10S A 5300,d1 ND<50 85 280 37 310 20 106 007A MW-11S 4800,d1 ND<120 75 220 28 320 2 107 Α 008A MW-12S Α 2400,d1 ND<15 2.4 110 20 290 2 115 009A PRED 7700,d1 ND<20 Α 87 310 38 590 2 120 010A 37,d1 ND 0.85 ND 100 AS Α ND 3.5 011A STACK A 180,d1 ND 0.62 5.8 1.5 19 103 Reporting Limit for DF = 1; Α 0.25 2.5 0.25 0.25 0.25 $\mu g/L$ ND means not detected at or 1.0 0.05 0.005 0.005 0.005 0.005 mg/Kg above the reporting limit

^{*} water and vapor samples are reported in $\mu g/L$, soil/sludge/solid samples in mg/kg, wipe samples in $\mu g/wipe$, product/oil/non-aqueous liquid samples in mg/L.

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

⁺The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant

AEI Consultants

Client Project ID: #116907; Vic's
Automotive

Date Sampled: 12/02/08

Date Received: 12/02/08

Client Contact: Ricky Bradford

Date Extracted: 12/02/08-12/04/08

Walnut Creek, CA 94597

Client P.O.: WC081080

Date Analyzed 12/02/08-12/04/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with MTBE and BTEX in ppmv*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0812050

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1S	A	3300,d1	ND<14	57	150	12	110	20	101
002A	MW-2S	A	3200,d1	ND<14	66	170	14	130	20	120
003A	MW-5S	A	1900,d1	ND<27	ND<3.1	29	2.9	81	40	84
004A	MW-6S	A	710,d1	ND<14	3.2	13	1.4	30	20	108
005A	MW-7S	A	3900,d1	ND<27	44	89	4.1	110	40	120
006A	MW-10S	A	1500,d1	ND<14	26	73	8.4	71	20	106
007A	MW-11S	A	1400,d1	ND<35	23	57	6.3	73	2	107
008A	MW-12S	A	660,d1	ND<5.0	7.3	29	4.5	66	2	115
009A	PRED	A	2200,d1	ND<5.0	27	80	8.7	130	2	120
010A	AS	A	10,d1	ND	ND	0.22	ND	0.79	1	100
011A	STACK	A	52,d1	ND	0.19	1.5	0.34	4.4	1	103

ppm (mg/L) to ppmv (ul/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.											
Reporting Limit for DF =1;	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L		
ND means not detected at or above the reporting limit	S	NA	NA	NA	NA	NA	NA	1	mg/Kg		

^{*} vapor samples are reported in μ L/L, soil/sludge/solid samples in mg/kg, wipe samples in μ g/wipe, product/oil/non-aqueous liquid samples in mg/L, water samples and all TCLP & SPLP extracts are reported in μ g/L.



[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

⁺The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant

W.O. Sample Matrix: Air

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

BatchID: 39831

WorkOrder: 0812050

QC SUMMARY REPORT FOR SW8021B/8015Cm

QC BOWNIART REFORT FOR 5W 6021D/0013Cm

QC Matrix: Water

EPA Method SW8021B/8015Cm	Extra	ction SW	5030B					S	Spiked San	nple ID	: 0812078-0	02A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
Tillalyto	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)	ND	60	102	99.9	2.05	104	98.6	5.67	70 - 130	20	70 - 130	20
MTBE	ND	10	91.5	95.9	4.73	101	98.6	2.66	70 - 130	20	70 - 130	20
Benzene	ND	10	89.5	94.1	4.97	97.6	93.4	4.34	70 - 130	20	70 - 130	20
Toluene	ND	10	92.5	94.1	1.69	96.4	93	3.56	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	99.1	98.3	0.791	100	96.7	3.62	70 - 130	20	70 - 130	20
Xylenes	ND	30	110	109	0.756	110	107	2.71	70 - 130	20	70 - 130	20
%SS:	94	10	90	92	1.69	95	91	3.91	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 39831 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0812050-002A	12/02/08 10:45 AM	12/03/08	12/03/08 3:59 AM	0812050-002A	12/02/08 10:45 AM	12/03/08	12/03/08 3:59 AM
0812050-003A	12/02/08 10:15 AM	12/02/08	12/02/08 10:01 PM	0812050-003A	12/02/08 10:15 AM	12/02/08	12/02/08 10:01 PM
0812050-004A	12/02/08 10:20 AM	12/02/08	12/02/08 10:31 PM	0812050-004A	12/02/08 10:20 AM	12/02/08	12/02/08 10:31 PM
0812050-005A	12/02/08 10:25 AM	12/02/08	12/02/08 9:31 PM	0812050-005A	12/02/08 10:25 AM	12/02/08	12/02/08 9:31 PM
0812050-006A	12/02/08 10:30 AM	12/02/08	12/02/08 7:01 PM	0812050-006A	12/02/08 10:30 AM	12/02/08	12/02/08 7:01 PM
0812050-007A	12/02/08 10:35 AM	12/04/08	12/04/08 3:53 PM	0812050-007A	12/02/08 10:35 AM	12/04/08	12/04/08 3:53 PM
0812050-008A	12/02/08 10:40 AM	12/03/08	12/03/08 4:29 AM	0812050-008A	12/02/08 10:40 AM	12/03/08	12/03/08 4:29 AM
0812050-009A	12/02/08 11:00 AM	12/03/08	12/03/08 4:59 AM	0812050-009A	12/02/08 11:00 AM	12/03/08	12/03/08 4:59 AM
0812050-010A	12/02/08 10:55 AM	12/03/08	12/03/08 5:29 AM	0812050-010A	12/02/08 10:55 AM	12/03/08	12/03/08 5:29 AM
0812050-011A	12/02/08 11:05 AM	12/04/08	12/04/08 4:21 AM	0812050-011A	12/02/08 11:05 AM	12/04/08	12/04/08 4:21 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

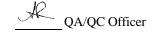
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Air	QC Matrix: Water	BatchID: 40004	WorkOrder: 0812050

EPA Method SW8021B/8015Cm	Extra	ction SW	5030B					S	Spiked San	nple ID	: 0812030-0	07A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
7 tildiyte	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btexf)	ND	60	114	111	2.64	91.6	92.7	1.16	70 - 130	20	70 - 130	20
MTBE	ND	10	93.3	94.3	1.01	95.7	94.9	0.845	70 - 130	20	70 - 130	20
Benzene	ND	10	94.3	92.9	1.44	94.2	93.2	1.05	70 - 130	20	70 - 130	20
Toluene	ND	10	95.6	96.2	0.556	96.2	96.1	0.167	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	96.5	94.7	1.86	96.3	95.5	0.900	70 - 130	20	70 - 130	20
Xylenes	ND	30	109	107	1.65	110	108	1.64	70 - 130	20	70 - 130	20
%SS:	96	10	101	102	0.761	100	102	1.79	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 40004 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0812050-001A	12/02/08 10:50 AM	12/02/08	12/02/08 11:01 PM	0812050-001A	12/02/08 10:50 AM	12/02/08	12/02/08 11:01 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

QA/QC Officer

"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #116907; Vic's Automotive	Date Sampled:	11/04/08
2500 Camino Diablo, Ste. #200	Automotive	Date Received:	11/05/08
Walnut Creek, CA 94597	Client Contact: Ricky Bradford	Date Reported:	11/10/08
	Client P.O.:	Date Completed:	11/07/08

WorkOrder: 0811162

November 10, 2008

Dear Ricky:	•
-------------	---

Enclosed within are:

- 1) The results of the 11 analyzed samples from your project: #116907; Vic's Automotive,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager

McCampbell Analytical, Inc.

	McCAM	PBELI	ANA	LY	ΓICA	LI	NC.											8	Cŀ	IA	IN	0	F	CU	JST	ГО	D	YI	RE	C	OR	D		1000
	1538 Willo	w Pass	Road, Pi	ttsbı	urg, C	A 94	1565							TURN AROUND TIME						4														
Telen	hone: (925) 252	-9262			Fax: (925) 252-9269								EI	OF F			.19	1	/v		7.8	J.	R	USH		24 1			48 H					
Report To: Ric			F	Rill T	o: san		(===	,				_	\dashv	EI)r r	ceq	uire		An						PD	FR	F Required? Yes					Comi	nents	
Company: AE					Or Date								1									Led	1030							-	101		Comi	
250	00 Camino Diab	lo, Suite	200													by IRS	Grease (5520 E&F/B&F)		preserv.															- ug/L and ppmv
	alnut Creek, CA	94597			il: rbr				onsu	ltatı	ns.co	m		Û		p by	&F/)3 pr													ved		ld p
Telephone: (9:					(925)		-						4	0150		an-ue	520 E		w/ HNO3										60B)			eser		au
AEI Project No	o. 116907 on: 245 8 th Str				ect Nai	ne:	Vic	s A	uton	noti	ve	_	\dashv	B/8		Cle	e (53		/M 2						-				W82			Idum		l/gn
Sampler Signa		_	Jand, CA		507					_			\dashv	(SW8021B/8015Cm)		a Ge	reas	00.8	IDPE										(S)		_	Amber unpreserved		
Sampler Signa	ture.	_	PLING	0		Т	BAAT	EDI	v	N	4ET	HOL)		0	<u> </u>	够	(TTLC/E200.8)	듵										et lis		010	er Ar		unit
		SAMI	LING	ers	ner	H	MA	IKI	A	PR	ESE	ŘVI	ED	MBTEX	150	/w/	n	F	250								.00	20	targ	60B	SWI	Life		oth
SAMPLE ID	FIELD POINT			of Containers	Type Containers									& MB	TPH-d (SW8015Cm)	TRPH (E418.1)	Total Petroleum Oil	D pes	*For Lead Use 250 ml HDPE								CAM 17 Metals	LUFT 5 Metals	HVOCs - 8010 target list (SW8260B)	(SW8260B)	**Flash Point (SW1010)	**For FP Use 1 Liter.		Report in both units
	NAME	Date	Time	Ü	o C	Water	_	All	ler ler		_	03	ler	S 6-1	S) P-I	H (E	l Pet	*Total Lead	Lea								117	T 5 1	SCs-		ash F	r FP		port
				# of	T.	Wa	Soil	All	Other	lce	HCI	HNO3	Other	TPH-g	TPH	TRP	Tota	*Tol	*For								CAN	LUF	HVC	MTBE	14.* E	**Fc		Rel
MW-1S	MW-1S	11/4/08	1400	1	ТВ			X					\neg	X																	7			X
MW-2S	MW-2S	1	1350	1	TB			X						X																				X
MW-5S	MW-5S		1250	1	TB			X						X																				x
MW-6S	MW-6S		1300	1	TB			X						X																				x
MW-7S	MW-7S		1310	1	TB			X					1	X																				X
MW-10S	MW-10S		1320	1	ТВ			X					1	X																				X
MW-11S	MW-11S		1330	1	ТВ			X				T	7	X																				X
MW-12S	MW-12S		1340	1	ТВ			X				\top		V				T									1							X
POSTD	POSTD			1	TB			X					7																					X
PRED	PRED		1410	1	TB			X					1	X																				x
AS	AS		1415	1	ТВ			X						X																				x
STACK	STACK	J	1425	1	ТВ			X				\forall		X	\forall	7		1																x
		,	1100									1	1					T																
Relinquished By:		Date:	Time:	Rec	eived B	V:	-					_	1			4	0	. ^										_				_		
amo	90 -	11 15/04	1250		10		n	-	2	/	-	5			CIE W	1.	X						/	nn r	CEP	****	TIO		DAS	0	&G	M	ETALS	OTHER
Relinquished By:	V #	Date:	Time:	Rec	eived B	y:						GOOD CONDITION APPROPRIATE																						
															EAL							D	(CON	TA	INE	RS_		_	9				
Relinquished By:		Date:	Time:	Rec	eived B	y:								D	ECI	1LC	KI	NA.	TED	IN	LA	В		g PE	ERSI	RV	ED	IN	LAE			-		
CE-TIS A STATE OF THE PARTY OF THE				7112																														

1534 Willow Pass Rd

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

— // A \	g, CA 94565-1701 52-9262					Work	Order	: 08111	162	(Client	Code: A	EL				
			WriteOn	✓ EDF		Excel		Fax		✓ Email		Hard	Сору	Thir	dParty	☐ J -1	flag
	ants to Diablo, Ste. #200 ek, CA 94597	cc: PO:	rbradford@ae #116907; Vic's	iconsultants.com			AE 25 W	enise Mo El Consu 600 Cam alnut Cre	iltants ino D eek, 0	s iablo, St CA 9459 [°] onsultan	7		Date	uested e Rece e Prin	ived:	5 o 11/05/2 11/05/2	
									Re	quested	Tests	(See leg	end b	elow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
0811162-001	MW-1S		Air	11/4/2008 14:00		Α	Α										
0811162-002	MW-2S		Air	11/4/2008 13:50		Α											
0811162-003	MW-5S		Air	11/4/2008 12:50		Α											
0811162-004	MW-6S		Air	11/4/2008 13:00		Α											
0811162-005	MW-7S		Air	11/4/2008 13:10		Α											
0811162-006	MW-10S		Air	11/4/2008 13:20		Α											
0811162-007	MW-11S		Air	11/4/2008 13:30		Α											
0811162-008	MW-12S		Air	11/4/2008 13:40		Α											
0811162-009	PRED		Air	11/4/2008 14:10		Α											
0811162-010	AS		Air	11/4/2008 14:15		Α											
0811162-011	STACK		Air	11/4/2008 14:25		Α											
Test Legend: 1 G-MBT	EX_AIR 2 7	PREDF RI	EPORT	3 8				9					=	5 10			
11	12												L				
	mpIDs: 001A, 002A, 003A, 004	A, 005A, 006	6A, 007A, 008A,	009A, 010A, 011A	contai	n testgr	oup.						Prepa	red by:	Maria	Venega	ıs

Comments:

Sample Receipt Checklist

Client Name:	AEI Consulta	ints			Date a	and Time Received:	11/5/2008	1:58:20 PM
Project Name:	#116907; Vid	s's Automotive			Check	klist completed and r	eviewed by:	Maria Venegas
WorkOrder N°:	0811162	Matrix Air			Carrie	er: <u>Client Drop-In</u>		
		<u>Chai</u>	n of Cu	stody (COC) Informa	ation		
Chain of custody	/ present?		Yes	V	No 🗆			
Chain of custody	signed when re	linquished and received?	Yes	V	No 🗆			
Chain of custody	agrees with sar	nple labels?	Yes	✓	No 🗌			
Sample IDs noted	d by Client on CO	C?	Yes	V	No 🗆			
Date and Time of	f collection noted	by Client on COC?	Yes	V	No 🗆			
Sampler's name r	noted on COC?		Yes	✓	No \square			
		<u>s</u>	Sample	Receip	t Information	<u>1</u>		
Custody seals in	tact on shipping	container/cooler?	Yes		No 🗆		NA 🔽	
Shipping contain	er/cooler in good	condition?	Yes	V	No 🗆			
Samples in prope	er containers/bot	tles?	Yes	V	No 🗆			
Sample containe	ers intact?		Yes	✓	No 🗆			
Sufficient sample	e volume for indic	cated test?	Yes	✓	No 🗌			
		Sample Prese	rvatio	n and H	old Time (HT) Information		
All samples recei	ived within holdir	g time?	Yes	✓	No 🗌			
Container/Temp I	Blank temperatur	e	Coole	er Temp:			NA 🗹	
Water - VOA via	ls have zero hea	dspace / no bubbles?	Yes		No 🗆	No VOA vials subm	itted 🗹	
Sample labels ch	necked for correc	et preservation?	Yes	V	No 🗌			
TTLC Metal - pH	acceptable upon	receipt (pH<2)?	Yes		No 🗆		NA 🔽	
Samples Receive	ed on Ice?		Yes		No 🗸			
* NOTE: If the "N	No" box is check	ed, see comments below.		===	====:	=====	====	======
Client contacted:		Date contac	cted:			Contacted	by:	
Comments:								

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #116907; Vic's Automotive	Date Sampled: 11/04/08
2500 Camino Diablo, Ste. #200	Automotive	Date Received: 11/05/08
	Client Contact: Ricky Bradford	Date Extracted: 11/05/08-11/06/08
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed 11/05/08-11/06/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0811162 Lab ID Client ID Matrix TPH(g) MTBE Benzene Toluene Ethylbenzene Xylenes DF % SS 001A MW-1S A 11,000,d1 ND<500 200 530 63 510 99 002A MW-2SA 14,000,d1 ND<50 250 650 79 660 20 95 99 003A MW-5S 14,000,d1 ND<100 440 27 650 40 120 A 004A MW-6S Α 3200,d1 ND<10 15 79 20 200 4 114 005A MW-7S 15,000,d1 ND<50 170 330 19 580 20 96 Α 006A MW-10S A 8200,d1 ND<50 120 340 36 540 20 101 007A MW-11S 2900,d1 ND<60 73 79 23 250 10 Α 117 MW-12S 008A Α 930,d1 ND<15 2.1 28 5.2 62 4 108 009A PRED 9500,d1 ND<30 100 Α 300 41 570 6.7 86 010A 74,d1 0.56 AS Α ND 1.2 3.5 11 93 011A STACK A ND ND ND ND ND ND 95 Reporting Limit for DF = 1; Α 2.5 0.25 0.25 0.25 0.25 μ g/L ND means not detected at or 1.0 0.05 0.005 0.005 0.005 0.005 mg/Kg above the reporting limit

* water and vapor samples are reported in µg/L	, soil/sludge/solid samples in mg/kg,	wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in
mg/L.		

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

⁺The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant

AEI Consultants	Client Project ID: #116907; Vic's Automotive	Date Sampled:	11/04/08
2500 Camino Diablo, Ste. #200	Automotive	Date Received:	11/05/08
,	Client Contact: Ricky Bradford	Date Extracted:	11/05/08-11/06/08
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed	11/05/08-11/06/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with MTBE and BTEX in ppmv*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0811162

001A MW-1S A 3100,d1 ND<180 63 140 14 120 20 9 002A MW-2S A 3800,d1 ND<14 78 170 18 150 20 9 003A MW-5S A 3900,d1 ND<27 30 110 6.1 150 40 12 004A MW-6S A 900,d1 ND<2.7 4.6 21 4.6 46 4 11 005A MW-7S A 4100,d1 ND<14 53 87 4.3 130 20 9 006A MW-10S A 2300,d1 ND<14 36 89 8.1 120 20 10 007A MW-11S A 820,d1 ND<20 22 21 5.2 57 10 11 008A MW-12S A 260,d1 ND<5.0 6.5 7.4 1.2 14 4 10	Dittituetro	minetion Biresea			1 mary trear	memous Bwoozi	Broote cin		World Graer	001.	.102
002A MW-2S A 3800,d1 ND<14 78 170 18 150 20 9 003A MW-5S A 3900,d1 ND<27 30 110 6.1 150 40 12 004A MW-6S A 900,d1 ND<2.7 4.6 21 4.6 46 4 11 005A MW-7S A 4100,d1 ND<14 53 87 4.3 130 20 9 006A MW-10S A 2300,d1 ND<14 36 89 8.1 120 20 10 007A MW-11S A 820,d1 ND<20 22 21 5.2 57 10 11 008A MW-12S A 260,d1 ND<5.0 6.5 7.4 1.2 14 4 10 009A PRED A 2700,d1 ND<10 31 77 9.3 130 6.7 8 0	Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
003A MW-5S A 3900,d1 ND<27	001A	MW-1S	A	3100,d1	ND<180	63	140	14	120	20	99
004A MW-6S A 900,d1 ND<2.7	002A	MW-2S	A	3800,d1	ND<14	78	170	18	150	20	95
005A MW-7S A 4100,d1 ND<14	003A	MW-5S	A	3900,d1	ND<27	30	110	6.1	150	40	120
006A MW-10S A 2300,d1 ND<14	004A	MW-6S	A	900,d1	ND<2.7	4.6	21	4.6	46	4	114
007A MW-11S A 820,d1 ND<20	005A	MW-7S	A	4100,d1	ND<14	53	87	4.3	130	20	96
008A MW-12S A 260,d1 ND<5.0	006A	MW-10S	A	2300,d1	ND<14	36	89	8.1	120	20	101
009A PRED A 2700,d1 ND<10	007A	MW-11S	A	820,d1	ND<20	22	21	5.2	57	10	117
010A AS A 21,d1 ND 0.38 0.91 0.13 2.6 1 9	008A	MW-12S	A	260,d1	ND<5.0	6.5	7.4	1.2	14	4	108
	009A	PRED	A	2700,d1	ND<10	31	77	9.3	130	6.7	86
011A STACK A ND ND ND ND ND 1 9	010A	AS	A	21,d1	ND	0.38	0.91	0.13	2.6	1	93
	011A	STACK	A	ND	ND	ND	ND	ND	ND	1	95

ppm (mg/L) to p	pmv (ul/	L) conversion f	or TPH(g) assur	nes the molecula	ar weight of gas	oline to be equa	l to that of hexa	ne.	
Reporting Limit for DF =1;	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
ND means not detected at or above the reporting limit	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

^{*} vapor samples are reported in $\mu L/L$, soil/sludge/solid samples in mg/kg, wipe samples in $\mu g/wipe$, product/oil/non-aqueous liquid samples in mg/L, water samples and all TCLP & SPLP extracts are reported in $\mu g/L$.



[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

⁺The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant

1534 Willow Pass Road, Pittsburg, CA 94565-1701

Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Air QC Matrix: Water BatchID: 39340 WorkOrder: 0811162

EPA Method: SW8021B/8015Cm	Extra	ction: SW	5030B					5	Spiked Sar	nple ID	: 0811099-0	001C				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)							
7 thaty to	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD				
TPH(btex)	ND	60	91.5	99.8	8.77	113	106	6.65	70 - 130	20	70 - 130	20				
MTBE	ND	10	108	96.3	11.3	102	106	4.38	70 - 130	20	70 - 130	20				
Benzene	ND	10	93.5	100	7.06	115	116	1.08	70 - 130	20	70 - 130	20				
Toluene	ND	10	103	111	7.45	115	115	0	70 - 130	20	70 - 130	20				
Ethylbenzene	ND	10	99.7	110	9.38	115	118	2.95	70 - 130	20	70 - 130	20				
Xylenes	ND	30	108	109	0.986	111	114	3.07	70 - 130	30 20 70 - 130 2						
%SS:	94	10	95	100	5.10	99	97	1.78	70 - 130 20 70 - 130 20							

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 39340 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0811162-001A	11/04/08 2:00 P	M 11/05/08	11/05/08 6:40 PM	0811162-001A	11/04/08 2:00 PI	11/05/08	11/05/08 6:40 PN
0811162-002A	11/04/08 1:50 P	N 11/05/08	11/05/08 7:10 PM	0811162-002A	11/04/08 1:50 PM	11/05/08	11/05/08 7:10 PN
0811162-003A	11/04/08 12:50 P	N 11/05/08	11/05/08 7:41 PN	0811162-003A	11/04/08 12:50 PI	11/05/08	11/05/08 7:41 PN
0811162-004A	11/04/08 1:00 P	11/06/08	11/06/08 10:47 PN	0811162-004A	11/04/08 1:00 PI	11/06/08	11/06/08 10:47 PN
0811162-005A	11/04/08 1:10 P	N 11/05/08	11/05/08 8:41 PN	0811162-005A	11/04/08 1:10 PM	11/05/08	11/05/08 8:41 PN
0811162-006A	11/04/08 1:20 P	N 11/05/08	11/05/08 9:11 PN	0811162-006A	11/04/08 1:20 PI	11/05/08	11/05/08 9:11 PN
0811162-007A	11/04/08 1:30 P	N 11/05/08	11/05/08 10:12 PM	0811162-007A	11/04/08 1:30 PM	11/05/08	11/05/08 10:12 PN
0811162-008A	11/04/08 1:40 P	N 11/05/08	11/05/08 10:42 PM	0811162-008A	11/04/08 1:40 PM	11/05/08	11/05/08 10:42 PN
0811162-009A	11/04/08 2:10 P	N 11/05/08	11/05/08 11:12 PM	0811162-009A	11/04/08 2:10 PM	11/05/08	11/05/08 11:12 PN
0811162-010A	11/04/08 2:15 P	N 11/06/08	11/06/08 6:59 PN	0811162-010A	11/04/08 2:15 PM	11/06/08	11/06/08 6:59 PN

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

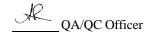
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contractive forms of the following reasons: a) the sample is inhomogenous and forms of the following reasons: a) the sample is inhomogenous and forms of the following reasons: a) the sample is inhomogenous and forms of the following reasons: a) the sample is inhomogenous and forms of the following reasons: a) the sample is inhomogenous and forms of the following reasons: a) the sample is inhomogenous and forms of the following reasons: a) the sample is inhomogenous and forms of the following reasons: a) the sample is inhomogenous and forms of the following reasons: a) the sample is inhomogenous and forms of the following reasons: a) the sample is inhomogenous and forms of the following reasons: a) the sample is inhomogenous and forms of the following reasons: a) the followi significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



1534 Willow Pass Road, Pittsburg, CA 94565-1701

Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Air QC Matrix: Water BatchID: 39446 WorkOrder: 0811162

EPA Method: SW8021B/8015Cm	Extra	ction: SW	5030B					5	Spiked Sar	nple ID	: 0811181-0)13A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)							
7 thaty to	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD				
TPH(btex)	ND	60	94.7	90.4	4.69	88.5	84.8	4.25	70 - 130	20	70 - 130	20				
MTBE	ND	10	99.1	102	3.00	98.5	105	6.55	70 - 130	20	70 - 130	20				
Benzene	ND	10	92.3	91.5	0.946	87	91.8	5.29	70 - 130	20	70 - 130	20				
Toluene	ND	10	91.8	91	0.852	78.4	85.7	8.81	70 - 130	20	70 - 130	20				
Ethylbenzene	ND	10	95.3	94.3	1.00	88	92.3	4.77	70 - 130	20	70 - 130	20				
Xylenes	ND	30	105	104	1.04	84.3	90.9	7.55	70 - 130	- 130 20 70 - 130 20						
%SS:	95	10	94	93	1.38	97	97	0	70 - 130 20 70 - 130 20							

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 39446 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0811162-011A	11/04/08 2:25 P	M 11/06/08	11/06/08 12:12 AN	0811162-011A	11/04/08 2:25 PI	11/06/08	11/06/08 12:12 AN

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

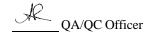
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contractions of the following reasons: a) the sample is inhomogenous AND contractions of the following reasons: a) the sample is inhomogenous AND contractions of the following reasons: a) the sample is inhomogenous AND contractions of the following reasons: a) the sample is inhomogenous AND contractions of the following reasons: a) the sample is inhomogenous AND contractions of the following reasons: a) the sample is inhomogenous AND contractions of the following reasons: a) the sample is inhomogenous AND contractions of the following reasons: a) the sample is inhomogenous AND contractions of the following reasons: a) the sample is inhomogenous AND contractions of the following reasons: a) the sample is inhomogenous AND contractions of the following reasons: a) the followin significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



"When Ouality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Web: www.mccampbell.com E-mail: main@mccampbell.com Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants	Client Project ID: #116907; Vic's Automotive	Date Sampled:	11/04/08
2500 Camino Diablo, Ste. #200	Automotive	Date Received:	11/05/08
Walnut Creek, CA 94597	Client Contact: Ricky Bradford	Date Reported:	11/11/08
(and cross, 622 > 163 /	Client P.O.:	Date Completed:	11/10/08

WorkOrder: 0811163

November 11, 2008

Dear	Ric	ky:

Enclosed within are:

- 3 analyzed samples from your project: #116907; Vic's Automotive, 1) The results of the
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager

McCampbell Analytical, Inc.

	McCA	MPBEL	L ANA	LY	TICA	LI	NC.					4						-	CH	[A]	IN	OF	CU	JST	ГО	D	Y F	RE	CC	R	D	8	1
	McCAMPBELL ANALYTICAL INC. 1538 Willow Pass Road, Pittsburg, CA 94565											T	UF	N.	AR	O	UN	D T	II	1E									1		A		
Tolon	Telephone: (925) 252-9262 Fax: (925) 252-9269 port To: Ricky Bradford Bill To: same															10	4	47	_	7. N.	R	USE	I	24 I	IR		18 H			2 HR	5 DAY		
				D:11.7			(320	, 2.	12-91	207		_	-	E	DF 1	c eq	uire					No		PD	FF	Requ	nre	a?	Ot	Yes	_	No	ments
Company: AE				BIII	to: san	ie													Alla	ilys	SI	equesi						\vdash	Ou	ilei		Com	ments
			e 200					-					\neg	3)				0															
				E-M	ail: rbr	adfo	rd@	aeic	onsu	Itat	ns.co	m		0211			SGT	/HC				3	Zn)			Se.					(pa/		
					_		-	_						SW8			EM	S (W				N N	Z,Z			8. Pb		(B)			esen		
The second of th									utor	noti	ive			Jm/			まま	mber				(w/ F	五			S, H	0	/826			nubr		
Project Locati	on: 245 8 th	Street, Oa	kland, C	A 94	607									(SW8015Cm/SW8021B)			991)	er Aı			(8.)PE	P. P.			2,	Pb, Zn)	(SW			per (
Sampler Signa	ture:	And in case of the last of the	_			_				_				3W8			HC	Lib			E200	Ħ	0,5			Ba	Z	list		9	Am	ling	
POST-AS POST-AS 1 1 50 3 3 3 3 3 X X X X X									X	Cm)		Grease HC (1664 HEM-SGT)	Use			(TTLC/E200.8)	20 m	(Cd.	(7.00		g, As	d, Cr,	arget	0B)	W10	Liter	Read						
SAMPLE ID	POINT	Date	Time	# of Container	Type Contain	Water	Soil	All	Other			HNO ₃	Other	TPH-g & MBTI	TPH-d (SW8015Cm)		**Total Oil & G	**For TOG HC Use 1 Liter Ambers (w/ HCl)			*Total Lead (T7	*For Lead Use 250 ml HDPE (w/ HNO ₃)	EBMUD 7 Metals (Cd, Cr, Cu, Pb, Hg, Ni,	CAM 17 Metals (200.7)	PP13 Metals	RCRA 8 Metals (Ag, As, Ba, Cd, Cr, Hg, Pb,	LUFT 5 Metals (Cd,	HVOCs - 8010 target list (SW8260B)	MTBE (SW8260B)	**Flash Point (SW1010)	**For FP Use 1 Liter Amber (unpreserved)	Flow Totalizer Reading	
INF	INF	11/04/08	1445	3	3VOA	Х				X	X			X																-			
POST-AS	POST-AS		1450	3	3VOA	X				X	X			X																			
POST-C1	POST-C1			3	3VOA	X				X	X																						
EFF	EFF	1)	1455	35		X				X	X			X																			
					ZirtiviD		1						1																				
																		-															
							\top	+		\vdash																							
										\vdash																1							
								+		\vdash																							
							+	+	+	\vdash																							
,							+	+	+	+			-																	-			
		-					+	+	-				-																				
-							+	+	-	\vdash			-						Н														
Relinquished By:		Date:	Time:	Rec	cived By			_		_			\dashv					_			_				_								
Do hat	/ .	11/5/08	1250-			950	-/		7	~						L	1	7/	/			. 4						OAS	10	&G	N	IETALS	OTHER
Relinguished By:	70	Date:	Time:	Rec	eived By	:	_			-		_			CE/		ON	DIT	rio	VI .	/					ATI		V					
					•										HEA						-		CON	NTA	INE	CRS	1						
Relinquished By:		Date:	Time:	Rec	eived By	:									DEC											VED	IŃ	LAI	3		-		

_____ 1534 Willow Pass Rd

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

	g, CA 94565-1701 52-9262					Work	Order	: 08111	163	(ClientC	Code: A	EL					
			WriteOn	✓ EDF		Excel		Fax		✓ Email		Hard	Сору	Th	irdParty	☐ J	-flag	
Report to: Ricky Bradfo	ord	Email: r	rbradford@ae			Bill to: De	enise Mo	ockel				Req	uested	I TAT:	5	days		
	o Diablo, Ste. #200 ek, CA 94597	cc: PO: ProjectNo: #	#116907; Vic's		AEI Consultants 2500 Camino Diablo, Ste. #200									Date Received: Date Printed:				
									Req	uested	Tests	(See le	gend b	elow)	•			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12	
0811163-001	INF		Water	11/4/2008 14:45		Α	Α											
0811163-002	POST-AS		Water	11/4/2008 14:50		Α												
0811163-003	EFF		Water	11/4/2008 14:55		Α												

Test Legend:

1 G-MBTEX_W	2 PREDF REPORT	3	4	5
6	7	8	9	10
11	12			
				Prepared by: Maria Venegas

Comments:

Sample Receipt Checklist

Client Name:	AEI Consultants				Date	and Time Received:	11/05/08 4	:14:20 PM
Project Name:	#116907; Vic's Automo	otive			Che	cklist completed and ı	reviewed by:	Maria Venegas
WorkOrder N°:	0811163 Matrix	<u>Water</u>			Carr	ier: <u>CA OverNight</u>		
		<u>Chain c</u>	of Cu	stody (C	OC) Inforn	<u>nation</u>		
Chain of custody	present?		Yes	V	No 🗆			
Chain of custody	signed when relinquished ar	nd received?	Yes	V	No 🗆			
Chain of custody	agrees with sample labels?		Yes	✓	No 🗌			
Sample IDs noted	by Client on COC?		Yes	V	No 🗆			
Date and Time of	collection noted by Client on C	COC?	Yes	~	No 🗆			
Sampler's name r	noted on COC?		Yes	✓	No \square			
		<u>Sa</u>	mple	Receipt	Informatio	o <u>n</u>		
Custody seals int	tact on shipping container/coo	oler?	Yes		No 🗆		NA 🔽	
Shipping containe	er/cooler in good condition?		Yes	V	No 🗆			
Samples in prope	er containers/bottles?		Yes	✓	No 🗆			
Sample containe	rs intact?		Yes	✓	No 🗆			
Sufficient sample	e volume for indicated test?		Yes	✓	No 🗌			
	<u>S</u> .	ample Preserv	vatior	n and Ho	old Time (H	T) Information		
All samples recei	ved within holding time?		Yes	✓	No 🗌			
Container/Temp B	Blank temperature		Coole	er Temp:	4.2°C		NA \square	
Water - VOA vial	ls have zero headspace / no	bubbles?	Yes	✓	No 🗆	No VOA vials subm	nitted 🗆	
Sample labels ch	necked for correct preservation	n?	Yes	✓	No 🗌			
TTLC Metal - pH	acceptable upon receipt (pH<	2)?	Yes		No 🗆		NA 🗹	
Samples Receive	ed on Ice?		Yes	~	No 🗆			
		(Ice Type	: WE	TICE)			
* NOTE: If the "N	No" box is checked, see com	ments below.						
	=======	=====		===		======		======
Client contacted:		Date contacte	ed:			Contacted	l by:	
Comments:								

AEI Consultants	Client Project ID: #116907; Vic's Automotive	Date Sampled: 11/04/08
2500 Camino Diablo, Ste. #200	Automotive	Date Received: 11/05/08
	Client Contact: Ricky Bradford	Date Extracted: 11/07/08-11/10/08
Walnut Creek, CA 94597	Client P.O.:	Date Analyzed 11/07/08-11/10/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Analytical methods SW8021B/8015Cm Extraction method SW5030B Work Order: 0811163 Xylenes Lab ID Client ID Matrix TPH(g) MTBE Benzene Toluene Ethylbenzene DF % SS 001A 1800 INF W 9400,d1 380 320 800 110 113 002A POST-AS W ND ND ND ND 1 ND 27 96 003A EFF W ND ND ND ND 1 98 ND 25

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wip	e,
product/oil/non-aqueous liquid samples in mg/L.	

[#] cluttered chromatogram; sample peak coelutes with surrogate peak.

W

50

1.0

5

0.05

0.5

0.005

0.5

0.005

0.5

0.005

0.5

0.005

 μ g/L

mg/Kg

Reporting Limit for DF = 1;

ND means not detected at or

above the reporting limit

⁺The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 39446 WorkOrder 0811163

EPA Method SW8021B/8015Cm	Extra	Extraction SW5030B							Spiked Sample ID: 0811181-013A				
Analyte	Sample	Spiked	MS	MSD	MSD MS-MSD LCS LCSD LCS-LCSD				Acce	Acceptance Criteria (%)			
Analyto	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH(btex ^f)	ND	60	94.7	90.4	4.69	88.5	84.8	4.25	70 - 130	20	70 - 130	20	
MTBE	ND	10	99.1	102	3.00	98.5	105	6.55	70 - 130	20	70 - 130	20	
Benzene	ND	10	92.3	91.5	0.946	87	91.8	5.29	70 - 130	20	70 - 130	20	
Toluene	ND	10	91.8	91	0.852	78.4	85.7	8.81	70 - 130	20	70 - 130	20	
Ethylbenzene	ND	10	95.3	94.3	1.00	88	92.3	4.77	70 - 130	20	70 - 130	20	
Xylenes	ND	30	105	104	1.04	84.3	90.9	7.55	70 - 130	20	70 - 130	20	
%SS:	95	10	94	93	1.38	97	97	0	70 - 130	20	70 - 130	20	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

BATCH 39446 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0811163-001A	11/04/08 2:45 PM	11/08/08	11/08/08 5:40 AM	0811163-002A	11/04/08 2:50 PM	11/10/08	11/10/08 11:33 PM
0811163-003A	11/04/08 2:55 PM	I 11/07/08	11/07/08 9:13 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

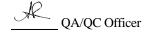
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



APPENDIX D REGULATORY CORRESPONDENCE

ALAMEDA COUNTY HEALTH CARE SERVICES

AGENCY



DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

October 3, 2008

Mr. Richard Lum and Ms. Linda Lum 2188 Hillside Drive San Leandro, CA 94577-6369

Mr. Victor Lum Vic's Automotive 245 8th Street Oakland, CA 94607

Subject: Fuel Leak Case No. RO0000202 and Geotracker Global ID T0600101143, Vic's Automotive, 245 8th Street, Oakland, CA 94607

Dear Mr. and Ms. Lum and Victor Lum:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the recently submitted document entitled, "Monitoring Well Installation & Quarterly Site Monitoring Report (Second Quarter 2008)," dated August 1, 2008 and prepared by AEI Consultants. The report presents the results from installation of three monitoring wells, operation of the high vacuum dual phase extraction (HVDPE) system, and groundwater monitoring. Recommendations for future activities were presented in the report summary.

Based on our review of the report contents and recommendations, we request that you address the following technical comments, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

- Suspension of Quarterly Soil Vapor Sampling and Continued Operation of HVDPE System. We concur with continued operation of the HVDPE system and the proposal to suspend quarterly soil vapor sampling during operation of the HVDPE system. Soil vapor sampling will be required following completion of HVDPE remediation to assess rebound and confirm site cleanup.
- 2. Quarterly Groundwater Monitoring. Please include recently installed monitoring wells MW-8, MW-9, and MW-13 in the quarterly groundwater monitoring program. The results are to be presented in the Quarterly Monitoring Reports requested below.
- 3. **Screening Soil Vapor Probes.** The proposal to screen the soil vapor probes for TVH, CO4, O2, and CO2 with an RKI Eagle gas detector on a quarterly rather than monthly basis is acceptable. Please present the results in the Quarterly Monitoring Reports requested below.

Richard and Linda Lum Victor Lum RO0000202 October 3, 2008 Page 2

- 4. **Conveyance Piping Laterals.** The proposal to install piping laterals for off-site wells MW-10, MW-11, and MW-12 is acceptable in order to continue to use the wells for HVDPE.
- 5. Proposed Wells MW-14, MW-15, and MW-16. We concur with the proposed locations for off-site monitoring wells MW-14, MW-15, and MW-16. Please present well installation results including boring logs, well completion diagrams, and sampling results (including a summary table of soil analytical data) for the proposed wells no later than the Quarterly Groundwater Monitoring Report for Fourth Quarter 2008 Report requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- November 13, 2008 Quarterly Groundwater Monitoring Report for Third Quarter 2008
- February 27, 2009 Quarterly Groundwater Monitoring Report for Fourth Quarter 2008 with Well Installation Results
- May 13, 2009 Quarterly Groundwater Monitoring Report for First Quarter 2009
- August 13, 2009 Quarterly Groundwater Monitoring Report for Second Quarter 2009

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic reporting).

Richard and Linda Lum Victor Lum RO0000202 October 3, 2008 Page 3

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297

Senior Hazardous Materials Specialist

Richard and Linda Lum Victor Lum RO0000202 October 3, 2008 Page 4

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Ricky Bradford
AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597

Peter McIntyre
AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597

Donna Drogos, ACEH Jerry Wickham, ACEH File

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)

ISSUE DATE: July 5, 2005

REVISION DATE: December 16, 2005

PREVIOUS REVISIONS: October 31, 2005

SECTION: Miscellaneous Administrative Topics & Procedures

SUBJECT: Electronic Report Upload (ftp) Instructions

Effective January 31, 2006, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as a single portable document format (PDF) with no password protection. (Please do not submit reports as attachments to electronic mail.)
- It is preferable that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements must be included and have either original or electronic signature.
- Do not password protect the document. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. Documents with password protection will not be accepted.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO# Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in Excel format. These are for use by assigned Caseworker only.

Submission Instructions

- 1) Obtain User Name and Password:
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to dehloptoxic@acgov.org

or

- ii) Send a fax on company letterhead to (510) 337-9335, to the attention of Alicia Lam-Finneke.
- b) In the subject line of your request, be sure to include "ftp PASSWORD REQUEST" and in the body of your request, include the Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
 - (i) Note: Netscape and Firefox browsers will not open the FTP site.
 - b) Click on File, then on Login As.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name at acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by Report Upload. (e.g., Subject: RO1234 Report Upload)