

October 13, 2009

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10:48 am, Oct 19, 2009

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Environmental Health

**MONITORING WELL INSTALLATION &
QUATERLY SITE MONITORING REPORT
(THIRD QUARTER, 2009)**

245 8th Street
Oakland, California

AEI Project No. 116907
ACHCSA RO#00000202

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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 monitoring for the Third Quarter, 2009 as well as the high vacuum dual phase extraction (HVDPE) system processing monitoring and operations and maintenance (O&M) activities for the months of July, August, and September. This report also documents and summarizes the methods and results of the installation, development, and first round of sampling of wells MW-14, MW-15, and MW-16. Finally, this report presents and summarizes the results of a rebound evaluation after the HVDPE system was shutdown for approximately three (3) months.

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 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 were 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 708 Alice Street 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 MONITORING WELL INSTALLATION

Three (3) monitoring wells (MW-14, MW-15, and MW-16) were installed to delineate the dissolved fuel hydrocarbon plume down-gradient of MW-8, MW-9 and MW-13. MW-15 and MW-16 were installed in a parking lane on the southwest side of 7th Street approximately 60-feet apart. MW-14 was installed in the parking lane along Alice Street, approximately 80-feet southwest of MW-8. The well locations are shown on Figure 2.

4.1 Permits and Clearances

Prior to construction, well installation permits (W2009-0648, W2009-0649, and W2009-0650) were obtained from the Alameda County Public Works Agency (ACPWA) and an encroachment permit (ENMI08241) and two (2) excavation permits (X0900880 & X0900881) were obtained from the City of Oakland. At least three (3) days prior to drilling, the work area was clearly identified with white marking paint and Underground Service Alert North (USAN) was notified to identify any subsurface utilities in the work area. Because the borings were cleared with a hand-auger to 5-feet bgs, a private utility locator was not contracted.

The well installation, encroachment, and excavation permits are included in Appendix D.

4.2 Health & Safety Meeting

Prior to drilling, a site safety meeting was held at a designated command post near the working area to review the Health and Safety Plan (HASP). Working hazards and emergency procedures were discussed at this meeting, including an explanation of the hazards of the known or suspected chemicals of interest as well as the location and route to the nearest hospital. All site personnel were in modified Level D personal protection equipment. A work area or “exclusion zone” was established with orange cones and/or barricades and warning tape to delineate the zone where hard hats and steel-toed shoes must be worn and where unauthorized personnel were not allowed. A site safety plan conforming to Part 1910.120 (i) (2) of 29 Code of Federal Regulations (CFR) was available on site at all times during the project.

4.3 Monitoring Well Construction

The wells were installed by Resonant Sonic International (RSI) Drilling (C-57 #802334) of Woodland, California under the direct supervision of an AEI project engineer and professional geologist. The borings for the wells were drilled using a truck-mounted direct-push/auger combo drilling rig. First, the borings were continuously sampled using direct-push technology to a depth of 24 to 25-feet bgs. Then, the borings were over-drilled with 8-inch nominal diameter hollow stem augers to install the monitoring wells to a depth of 22-feet bgs. The wells were constructed with standard 2-inch diameter schedule 40 polyvinyl chloride (PVC) well screen (0.010 slotted) and flush threaded riser. The wells were installed to a total depth of 22-feet bgs with the screen interval extending from 12 to 22 feet bgs, which is identical to MW-8 through MW-13. The annular space was filled with #2/12 Monterey sand to approximately 1-foot above the top of the well screen. At least 2-feet of hydrated bentonite chips were installed above the sandpack and the remainder of the borehole was sealed to approximately 0.5-feet bgs with Type II – IV Portland cement grout. The tops of the well casings were secured with expanding well caps. The wellheads were completed flush to grade with 8-inch diameter traffic-rated well boxes. The wells were later labeled and tagged by an ACPWA inspector as required.

4.4 Drilling, Soil Description, Sampling, and Analyses

A standard 2.25-inch outside diameter Macro-Core® soil sampler was used to collect continuous soil core samples. The Macro-Core® was lined with PVC sample liners and driven in 4-foot pushes until reaching the target depth of approximately 24-feet bgs. After each push, the Macro-Core® was retrieved, core barrel disassembled, and PVC liner containing the sample was removed and transferred to the onsite AEI project engineer. The continuous soil core samples were described according to standard geological methods and the Unified Soil Classification System (USCS) using the “visual-manual procedure” (ASTM D2488) by noting color, moisture content, texture, and grain-size and distribution. Soil samples were collected and retained at a minimum of 4-foot intervals for field screening and possible chemical analyses. Select soil samples retained for possible analytical testing were sealed with Teflon® tape and plastic end caps, labeled with unique sample identifiers, entered on a chain of custody record, and placed in a pre-chilled cooler on wet ice pending transportation to the laboratory. Duplicate or soil sub-samples were placed into a durable 0.5-liter zipper locking bags. After allowing at least 30 minute for the samples to

equilibrate, the headspace was screened for the presence of organic vapors with a photo-ionization detector. Select samples were transported on the same day of collection under proper chain of custody protocol to McCampbell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification #1644). Only soil samples from approximately 16-foot bgs (from the capillary zone) and 24-foot bgs (from the saturated zone) were submitted for analyses and all other samples were placed on hold at the laboratory. Selected soil samples were analyzed for TPH-g by EPA Method 8015C and MBTEX by EPA Method 8021B.

The boring logs and well construction diagrams are included in Appendix E. The soil analytical data is summarized in Table 4.

4.5 Equipment Decontamination, Waste Storage, & Disposal

The probe rods, Macro-Core® soil samplers, and hollow-stem augers were scrubbed and cleaned with an Alconox® detergent and rinsed with clean water between borings. Soil cuttings and other investigation-derived wastes (IDW) were stored in 55-gallon DOT-approved drums (sealed and labeled) pending the results of the sample analyses and arrangements for off-site disposal. The IDWs were handled and disposed in accordance with all applicable local, state, and federal regulations.

4.6 Monitoring Well Development

On August 3, 2009, the monitoring wells (MW-14, MW-15, and MW-16) were developed by surging and over-pumping to remove accumulated fines from inside the well casing and the surrounding sandpack.

5.0 HVDPE TECHNOLOGY AND PROCESS DESCRIPTION

5.1 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 the 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.

5.2 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 ft² 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 to MW-7S, and MW-10S to MW-12S). These sample ports are labeled and located along 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: GP-1-5', GP-1-10', GP-2-5', GP-2-10', GP-3-5', GP-3-10', to GP-4-5' and GP-4-10'. It should be noted that GP-3-5', GP-3-10', GP-4-5', and GP-4-10' were decommissioned between August 21 and 22, 2009 because the 708 Alice Street property was being developed.

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

6.0 SUMMARY OF MONITORING ACTIVITIES

6.1 Quarterly Groundwater Monitoring

The HVDPE system was shutdown on May 19, 2008 due to low hydrocarbon recovery and for a rebound evaluation approximately three (3) months prior to this groundwater monitoring event. On August 21, 2009, the water levels were measured and groundwater samples were collected from all the monitoring / dual phase extraction wells, except for MW-10 through MW-12. Measuring the depth to water and sampling MW-10 through MW-12 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 on 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 historic free product (i.e., MW-1, MW-6, and MW-7) were checked with an oil-water interface meter. 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 clear plastic bailers.

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

The groundwater samples were collected with disposable plastic bailers into 40-milliliter (mL) volatile organic analysis (VOA) vials and capped so that no head space or air bubbles were present within the sample containers. Samples were entered onto a chain of custody record and placed in a pre-chilled cooler on wet ice pending transportation to the laboratory. The samples were delivered on the day of collection under proper chain of custody protocol to McCampbell Analytical, Inc. of Pittsburg, California (DHS Certification #1644). A total of thirteen (13) groundwater samples were

analyzed for TPH-g by EPA Method 8015C and MBTEX by EPA Method 8021B. In addition, due to the elevated reporting limits for MTBE by EPA Method SW8021B, the samples collected from MW-2, MW-5, MW-7, and MW-9 were tested for MTBE only by EPA Method SW8260B.

6.2 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.

6.3 HVDPE System Process Monitoring

6.3.1 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/or O&M Field Log 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:

- HVDPE System: 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 (ft²) of a 3-inch pipe, control valve initial and final positioning (% open), and cooling fan(s) status (on/off).
- HVDPE Wells: the stinger vacuum (in-Hg), casing vacuum (in-Hg), and drop tube depth (ft toc) data were collected monthly or as needed.
- Thermal/Catalytic Oxidizer: 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 (ft²) of a 3-inch pipe.
- Air Stripper: 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).
- Activated Carbon Absorbers: inlet pressure (psig), outlet pressure (psig), flow totalizer reading (gallons), and whether or not the bag filter was change and/or carbon absorber backwashed.

6.3.2 Influent & Effluent Vapor Monitoring

The HVDPE system was restarted on August 31, 2009 and influent and effluent vapor samples were collected on August 31, September 10, 17, and 25, and October 2, 2009 to assess hydrocarbon rebound after shutting down the system for approximately three (3) months, to determine the hydrocarbon influent concentrations and recovery rates, and to establish the most efficient operating mode (either continuous or intermittent). Process vapor samples were not collected in June or July because the system was shutdown for the rebound evaluation.

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 Eagle 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.

6.3.3 Influent & Effluent Water Monitoring

Influent and effluent process water samples were collected on August 31, 2009. Process water samples were noted collected in June or July because the system was shutdown for the rebound evaluation.

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 wet ice pending transportation to the laboratory. The samples were delivered on the day of collection under proper chain of custody protocol to McCampbell Analytical, Inc. of Pittsburg, California (DHS Certification #1644). Three

(3) samples were analyzed for TPH-g by EPA Method 8015C and MBTEX by EPA Method 8021B.

6.3.4 Soil Gas Composition & Vacuum Influence Monitoring

On October 2, 2009, the nested soil gas probes (GP-1 and GP-2) were screened in the field for TVH, CH₄, O₂, and CO₂ and vacuum influence was measured. The soil gas probes were not screened nor was the vacuum influence measured in June and July because the system was shutdown for the rebound evaluation.

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.

6.4 HVDPE System Operations & Maintenance

6.4.1 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 air filters were changed this quarter, but are likely to be changed during the next quarter.
- Checked the two (2) separator filter on Liquid Ring Pump #2 (LRP #2). The separator filters were not changed this quarter, but are likely to be changed during the next quarter, or as need based on visual inspection and/or the quality if the influent process water.

- Formerly considered a none-routine maintenance item, the aluminum fins on the air-cooled heat exchanger for LRP #2 were cleaned with compressed air during each O&M visit.
- No other routine maintenance was performed during this quarter.

6.4.2 Non-Routine Maintenance

Non-routine maintenance performed during this quarter included:

- On August 31, 2009, all the well casings were checked for cracks and wellhead seals were checked for leaks due to a loss of system vacuum, primarily when MW-1 was turned on. No cracked casings or wellhead leaks were identified at MW-2, MW-5, MW-7, MW-10, MW-11, or MW-12. A significant crack was discovered at MW-1 at least 1 to 2-feet below the ground surface; therefore, MW-1 was shutdown pending repair. MW-6 could not be inspected because a car was parked over top of the well box. Because a significant vacuum leak could be heard at the surface, MW-6 was also shutdown pending further inspection and/or possible repair.
- On September 8, 2009, the system shutdown due to a low gas pressure and/or veri-flame alarm. The low gas pressure alarm was inspected and cleared. The propane tank was found to be empty and the propane supplier was called to schedule a delivery. Based on the hour meter reading the system ran for approximately 4.6 days and shutdown on September 5, 2009.
- On September 8, 2009 the remote monitoring system was inspected and a blown fuse was identified. The fuse was replaced and the remote monitoring system started working.
- On September 10, 2009, the system was restated after approximately 437 gallons of propane was delivered.
- On September 15, 2009, the system shutdown due to a veri-flame alarm. The veri-flame alarm was cleared and the system was restarted that morning. However, the system shutdown again later that afternoon.
- On September 16, 2009, the veri-flame alarm was cleared and the system was restarted. The flame was visually observed and the flame signal strength was tested with a DC volt meter. Good flame signal strength is between 6 and 11 VDC; anything below 4 VDC is insufficient. The flame looked normal, but the flame signal strength was somewhat erratic. The pilot gas was increased slightly and the flame signal strength improved.
- No other none-routine maintenance was performed during this quarter.

6.4.3 System Modifications

System modifications completed during this quarter included:

- On August 31, 2009, the HVDPE system was restated after being shutdown for approximately three (3) months. Because relatively low concentrations of hydrocarbon were detected in the influent and/or leaks were at the wellheads, extraction wells MW-1, MW-6, and MW-12 were turned off.
- The system operation focused on extracting hydrocarbons from MW-2, MW-5, MW-7, MW-10, and MW-11 through the end of September.
- No other major system modifications were performed during this quarter.

7.0 RESULTS & CONCLUSIONS

7.1 Soil Sample Analytical Data

The analytical results for the soil samples collected during the installation of MW-14, MW-15, and MW-16 are summarized below:

- TPH-g and BTEX were not detected at or above the standard laboratory reporting limits in the soil samples analyzed from MW-14, MW-15, and MW-16 at approximately 16 and 24-foot bgs.
- MTBE was detected in MW-16-25' at a concentration of 0.24 mg/kg.
- The soil analytical data indicates that there is little to no soil contamination in capillary and saturated zones in the vicinity of MW-14, MW-15 and MW-16.

The soil analytical data is summarized in Table 4. The laboratory analytical report with chain of custody documentation and quality assurance/quality control documentation is included in Appendix C.

7.2 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 in any of the monitoring wells, although elevated concentrations of dissolved hydrocarbons, such as TPH-g, BTEX, and MTBE, remain onsite and offsite.
- LNAPL of any apparent measurable thickness (at or greater than 0.01 feet) has not been detected in MW-1, MW-6, and MW-7 since May of 2007.

- The groundwater elevations have been influenced onsite and offsite by the HVDPE groundwater extraction activities; however, recent monitoring data continues to indicate a southwest groundwater flow direction.
- Since the HVDPE system was shutdown for approximately three (3) months prior to this monitoring event, the groundwater elevation data was contoured. The last time the groundwater elevations were contoured was in May of 2007.
- The currently groundwater flow direction and hydraulic gradient is south-southwest at 0.010 ft/ft.
- The normal historical groundwater flow direction has been predominantly to the south with a hydraulic gradient of approximately 0.010 ft/ft.

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

7.3 Groundwater Sample Analytical Data

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

- The highest concentration of TPH-g was detected in MW-1 at a concentration of 63,000 µg/L. The second, third, and fourth highest concentrations of TPH-g were detected in MW-6, MW-9, and MW-7 at concentrations of 63,000 µg/L, 48,000 µg/L, and 28,000 µg/L, respectively.
- The highest concentration of benzene was detected in MW-9 at a concentration of 15,000 µg/L. The second, third, and fourth highest concentrations of benzene were detected in MW-7, MW-1, and MW-6 at concentrations of 6,200 µg/L, 1,900 µg/L, and 1,800 µg/L, respectively.
- The highest and second highest concentrations of MTBE were detected in MW-9 and MW-7 at concentrations of 900µg/L and 390 µg/L, respectively.
- Higher concentrations of TPH-g and BTEX were detected in source area wells MW-1, MW-6, MW-5, MW-7, and MW-9.
- Moderate concentrations of TPH-g were detected in MW-14.
- Lower concentrations of TPH-g were detected in MW-2, MW-4, MW-8, MW-13, MW-15, and MW-16.

- TPH-g, BTEX, and MTBE were not detected at or above the standard laboratory reporting limits in MW-3.
- The HVDPE system has significantly reduced (by at least one order of magnitude) the dissolved phase concentrations of hydrocarbons onsite and offsite as nearly 5,000 gallons of TPH-g and over 40,000,000 cubic feet of soil gas have been removed from the subsurface.
- However, recent groundwater monitoring and process vapor sampling data indicates that a significant residual source of hydrocarbons still exists in the soil in the vicinity of MW-1, MW-6, and MW-7. This residual source zone will continue to leach-out and degrade groundwater quality above the cleanup goals.
- 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.

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

7.4 HVDPE System Process Monitoring

7.4.1 Influent & Effluent Vapor Sample Analytical Data

On August 31, 2009, the HVDPE system was restarted after being shutdown for approximately three (3) months. Vapor samples were collected to evaluate the hydrocarbon rebound, to determine the hydrocarbon influent concentrations and recovery rates, and to establish the most efficient operating mode (either continuous or intermittent). The field screening results and analytical data are summarized below:

- The highest concentrations of TPH-g were detected in MW-2S, MW-5S, MW-7S, MW-10S, and MW-11S at concentrations of 1,800 ppmv, 1,300 ppmv, 1,900 ppmv, 1,700 ppmv, 1,000 ppmv, respectively. Likewise, the highest concentrations of TVH were detected in MW-2S, 5S, MW-7S, MW-10S, and MW-11S.
- Lower concentrations of TPH-g were detected in MW-1S, MW-6S, and MW-12S at concentrations of 39 ppmv, 330 ppmv, and 130 ppmv, respectively. Likewise, lower concentrations of TVH were detected in MW-1S, MW-6S, and MW-12S.
- The highest concentrations of CO₂ were detected in MW-1S, MW-2S, MW-5S, MW-7S, and MW-11S at concentrations of 3.2%, 5.1%, 3.3%, 8.2%, and 3.5%, respectively, which indicates that biodegradation is occurring in the subsurface in the vicinity of these wells.

- No significant concentrations of methane greater than 0.5% were detected in any of the extraction wells.
- Only toluene and total xylenes were detected in the air stripper (AS) effluent vapor sample at concentrations of 0.096 and 0.24 ppmv, respectively.
- TPH-g and TVH were detected in the combined influent vapor sample (PRED) at concentrations of 870 and 400 ppmv, respectively.
- TPH-g, BTEX, and MTBE were not detected in the STACK sample at or above the laboratory reporting limits, except for a trace amount of toluene and total xylenes detected at concentrations of 0.069 ppmv and 0.35 ppmv, respectively.

On August 31, 2009, after the extraction wells were field screened for TVH, CH₄, O₂, and CO₂ and vapor samples were collected, the wells with the lowest recovery (MW-1, MW-6, and MW-12) were turned off. The extraction wells were field screened and vapor samples were collected on a weekly basis for four (4) consecutive weeks to determine the hydrocarbon influent concentrations and recovery rates and to establish the most efficient operating mode (either continuous or intermittent). The field screening results and analytical data are summarized below:

- On September 10, 2009, approximately one (1) week after restarting the system, the concentrations of TPH-g and BTEX increased in nearly all of the extraction wells sampled, except MW-10S and MW-11S. TPH-g was detected in MW-2S, MW-5S, MW-7S, MW-10S, and MW-11S at concentrations of 2,000 ppmv, 1,800 ppmv, 3,100 ppmv, 1,600 ppmv, and 870 ppmv, respectively.
- On September 17, 2009, approximately two (2) weeks after restarting the system, the concentrations of TPH-g and BTEX increased in all of the extraction wells sampled. TPH-g was detected in MW-2S, MW-5S, MW-7S, MW-10S, and MW-11S at concentrations of 2,700 ppmv, 2,200 ppmv, 5,200 ppmv, 1,900 ppmv, and 890 ppmv, respectively.
- On September 25, 2009, approximately three (3) weeks after restarting the system, the concentrations of TPH-g and BTEX increased in nearly all of the extraction wells sampled, except MW-5S and MW-11S. TPH-g was detected in MW-2S, MW-5S, MW-7S, MW-10S, and MW-11S at concentrations of 2,900 ppmv, 2,100 ppmv, 5,500 ppmv, 2,400 ppmv, and 840 ppmv, respectively.
- On October 2, 2009, approximately three (3) weeks after restarting the system, the concentrations of TPH-g and BTEX stabilized and decreased in nearly all of the extraction wells sampled, except MW-11S. TPH-g was detected in MW-2S, MW-5S, MW-7S, MW-10S, and MW-11S at concentrations of 2,800 ppmv, 2,100 ppmv, 5,300 ppmv, 1,700 ppmv, and 880 ppmv, respectively.

- The concentration of TPH-g detected in the combined influent vapor sample (PRED) increased from 400 ppmv to 1,700 ppmv after the first week, to 2,600 ppmv after the second week, and to 2,700 ppmv after the third week of operation. By the fourth week of operation the concentration of TPH-g decreased slightly to 2,400 ppmv. Overall, the concentration of TPH-g stabilized after the second week of operation and sustained at practically the same concentration after four (4) weeks of nearly continuous operation.
- The most significant increases in the concentration of TPH-g and BTEX were detected in MW-7S. The concentrations of TPH-g and BTEX increased by more than 60% after the first and second weeks of operation, but appeared to have almost stabilized by the third week of operation, when the concentrations of TPH-g and BTEX only increase by about 6%.
- Overall, the concentrations of TPH-g and BTEX increased in nearly all of the extraction wells, which may be attributed to the “dewatering effect” or the gradual lowering of the water table, which exposed previously saturated soils in the smear zone to airflow.
- The rebound evaluation and hydrocarbon recovery data suggests that a significant residual source of hydrocarbons is still present in the subsurface, particularly in the vicinity of MW-7. As already stated in Section 7.3, this residual source zone will continue to leach-out and degrade groundwater quality above the cleanup goals.

Influent and effluent vapor field screening and analytical data is summarized in Table 6. The laboratory analytical reports with chain of custody and quality assurance/quality control documentation are included in Appendix C.

7.4.2 Influent & Effluent Water Sample Analytical Data

The results of the influent and effluent water samples collected on August 31, 2009 are summarized below:

- TPH-g, benzene, toluene, ethylbenzene, and total xylenes were detected in the combined water influent sample (INF) at concentrations of 4,200 µg/L, 110 µg/L, 230 µg/L, 41 µg/L, and 640 µg/L, respectively.
- TPH-g, benzene, toluene, ethylbenzene, and total xylenes were detected in the water effluent sample from the air stripper (POST-AS) at concentrations of 190 µg/L, 5.4 µg/L, 11 µg/L, 2.1 µg/L, and 29 µg/L, respectively.
- The average air stripper removal efficiency for this quarter was approximately 99.4%.
- TPH-g and BTEX were not detected in the combined effluent water sampled (EFF) at or above the standard laboratory reporting limits.

The water influent/effluent sample analytical data is summarized in Table 7. The air stripping system performance data is summarized in Table 12. The laboratory analytical report with chain of custody and quality assurance/quality control documentation is included in Appendix C.

7.4.3 Influent Well Vapor and Water Flow Rates

The influent well vapor and water flow rates are summarized below:

- The total well influent vapor velocity ranged from approximately 1,100 to 2,000 feet per minute (fpm) and the total well influent vapor flow rate ranged from 54 to 98 standard cubic feet per minute (scfm).
- Average groundwater extraction rates ranged from 2,125 to 7,262 gallons per day or approximately 1.5 to 5 gallons per minute (gpm). The flow totalizer was found to be broken on September 10, 2009; therefore, the actual groundwater extraction rates were probably much higher.
- Approximately 54,540 gallons of groundwater was recovered, treated, and discharged to the sanitary sewer between May 20, 2009 and October 2, 2009. The flow totalizer was found to be broken on September 10, 2009; therefore, the actual total volume of groundwater recovered, treated, and discharged to the sanitary sewer was probably much greater.
- A total of 1,520,090 gallons have been recovered and treated since startup in June of 2007.

The well vapor flow rates and water flow rates are summarized in Table 10 and Table 13, respectively.

7.4.4 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 mass removal rates are summarized below:

- The vapor phase mass removal rates ranged from approximately 24 to 106 pounds per day (lbs/day) with an overall average of approximately 60 lbs/day during this reporting period. The vapor phase mass removal rates increased significantly after shutting down the system and allowing hydrocarbons in the subsurface to rebound for three (3) months. The average vapor phase mass removal rates increased by approximately 1,600 % when compared to the average recovery rate of approximately 3.5 lbs/day during the Second Quarter, 2009.
- Approximately 2,012 pounds or 335 gallons of gasoline in the vapor phase was recovered and treated between May 19 and October 2, 2009.

- Approximately 28,491 pounds or 4,749 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 rate on August 31, 2009 was approximately 0.25 lbs/day.
- Approximately 1.55 pounds or 0.25 gallons of gasoline in the dissolved phase was recovered and treated between May 20 and August 31, 2009.
- Approximately 143 pounds or 24 gallons of dissolved phase gasoline has been removed since startup.

The vapor phase mass removal rates with assumptions, unit conversions, and sample calculations are summarized in Table 10 and shown on Figure 8. The dissolve phase mass removal rates are presented in Table 13. A cumulative vapor phase mass removal graph is shown on Figure 9.

7.4.5 Soil Gas Composition and Vacuum Influence

The results of the TVH, CH₄, O₂, and CO₂ field screening data and vacuum influence measurements collected on October 2, 2009 are summarized below:

- On May 1, 2009 water was detected in GP-1 and GP-2 at 10-feet bgs, but not at 5-feet bgs. Field screening and vacuum influence measurements were not collected from the soil gas probes at 10-feet bgs, except for a vacuum influence measurement from GP-2 at 10-feet bgs.
- 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 concentrations of O₂ in GP-1 and GP-2 at 5-feet bgs was 19.9% and 20.7%, respectively.
- The concentrations of CO₂ in GP-1 and GP-2 at 5-feet bgs was 0.5% and 0.1%, respectively.
- Significant vacuum influence (i.e., greater than 0.1 inches of water – Hinchee, R.E., et al., 1996 and others) was measured at 0.3 in-H₂O in GP-2 at 10-feet bgs on April 21, 2009.

The soil gas field screening data and vacuum influence measurements are summarized in Table 8.

8.0 SUMMARY & PLANNED ACTIVITIES

This report presented the findings of the Third Quarter, 2009 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. This report also documented and summarized the methods and results of the installation, development, and first round of sampling of wells MW-14, MW-15, and MW-16. Finally, this report presented and summarized the results of a rebound evaluation after the HVDPE system was shutdown for approximately three (3) months.

The main results of this monitoring episode are summarized below:

- Monitoring wells MW-14, MW-15, and MW-16 were installed to define the down-gradient extent of the dissolved hydrocarbon plume. Based on the results of the first round of sampling, it appears that the plume has now been adequately delineated. Furthermore, the plume extends approximately 200 to 250-feet down-gradient from the release area, which is consistent with the California Lawrence Livermore National Lab (LLNL) Study in June of 1994, which concluded that 90% of benzene plumes were less than 260 feet long and were either stable or shrinking in size.
- The highest dissolved phase concentrations of TPH-g and BTEX were detected in MW-1, MW-6, MW-7, and MW-9.
- Moderate concentrations of TPH-g and BTEX were detected in MW-14.
- Lower concentrations of TPH-g and BTEX were detected in MW-2, MW-4, MW-8, MW-13, MW-15, and MW-16.
- TPH-g, BTEX, and MTBE were not detected at or above the standard laboratory reporting limits in MW-3.
- MTBE was not detected at or above the standard laboratory reporting limit in MW-4, MW-5, MW-6, MW-8, MW-13, and MW-14.
- The results of this groundwater monitoring event are generally consistent with previous episodes with a notable increase in groundwater table elevation, which can be attributed to shutting down the HVDPE system for three (3) months prior to this monitoring event.
- LNAPL of any apparent measurable thickness (greater than 0.01 feet) has not been detected since the HVDPE system was installed and started up in June of 2007. However, elevated dissolved phase concentrations of TPH-g and BTEX remain onsite and offsite.
- Significant increases in the overall concentrations of dissolved phase hydrocarbon in some of the onsite wells (most notably MW-1 and MW-7) are likely the result of shutting down the

HVDPE system for three (3) months and allowing the hydrocarbons to rebound prior to this monitoring event.

- The hydrocarbon influent concentrations (up to 5,500 ppmv) and recovery rates (up to 106 lbs/day) increased significantly during this quarter. As stated in Section 7.4.4, the average vapor phase mass removal rates increased by approximately 1,600 % when compared to the Second Quarter, 2009.
- The combined influent vapor concentrations of hydrocarbons (sustained at approximately 2,500 ppmv) are still within the range for catalytic oxidation, but may be too high for activated carbon to be a more cost-effective 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 CO₂ detected in MW-1S, MW-2S, MW-5S, MW-7S, and MW-11S indicates that biodegradation is occurring in the subsurface onsite and offsite.

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-14, MW-15, and MW-16) and previously 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 to 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.
- In accordance with the State Water Resource Control Board (SWRCB) Resolution No. 2009-0042, the ACHCSA issued a letter, dated July 24, 2009, requiring groundwater monitoring to be reduced from quarterly to semiannually unless site-specific conditions warrant otherwise. Because the site is currently in the remediation and to some extent the post-remediation monitoring phases and because recently installed monitoring wells MW-14, MW-15, and MW-16 should be monitored for at least one (1) hydrologic cycle, quarterly monitoring appears to be appropriate for the majority of the wells, except MW-3, MW-4, and MW-8. The current and proposed groundwater monitoring schedule is summarized in Appendix G. The proposed monitoring schedule will be implemented during the Fourth Quarter of 2009 unless the ACHSA recommends otherwise.

- Since the recently installed monitoring wells (MW-14, MW-14, and MW-16) and previously installed monitoring wells (MW-8, MW-9, and MW-13) have been surveyed, a new site plan and coordinates will be uploaded GeoTracker as required during the next quarter.
- Based on the results of the rebound evaluation, continue operation of the HVPDE system until the influent vapor concentrations and recovery rates decline to unproductive levels, including monthly O&M and process monitoring, evaluation and optimization of the system performance, and conducting air and water discharge compliance sampling and reporting as required by permit.
- Contact ACHCSA to discuss the advancement of several continuous soil borings within the source area and at the fringe of the source area to evaluate the significance, magnitude, and extent of a residual soil source that may delay reaching groundwater cleanup goals. Also discuss the current effectiveness of the HVDPE system and potential alternatives if a significant residual adsorbed phase fuel hydrocarbon source is identified.
- Continue to screen the soil gas probes for TVH, CH₄, O₂, and CO₂ with the RKI Eagle gas detector on a quarterly and/or as needed rather than monthly basis. The soil gas probes will be screened according to the methods described in Downey, et al., 2004.

9.0 REFERENCES

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10.0 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.

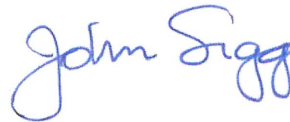
Sincerely,
AEI Consultants



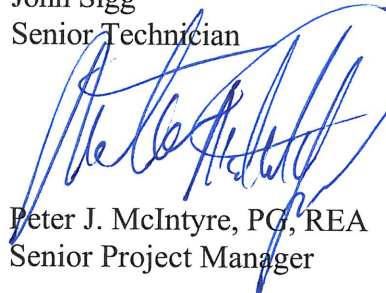
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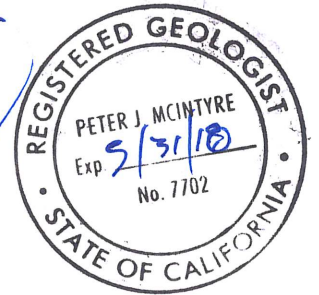
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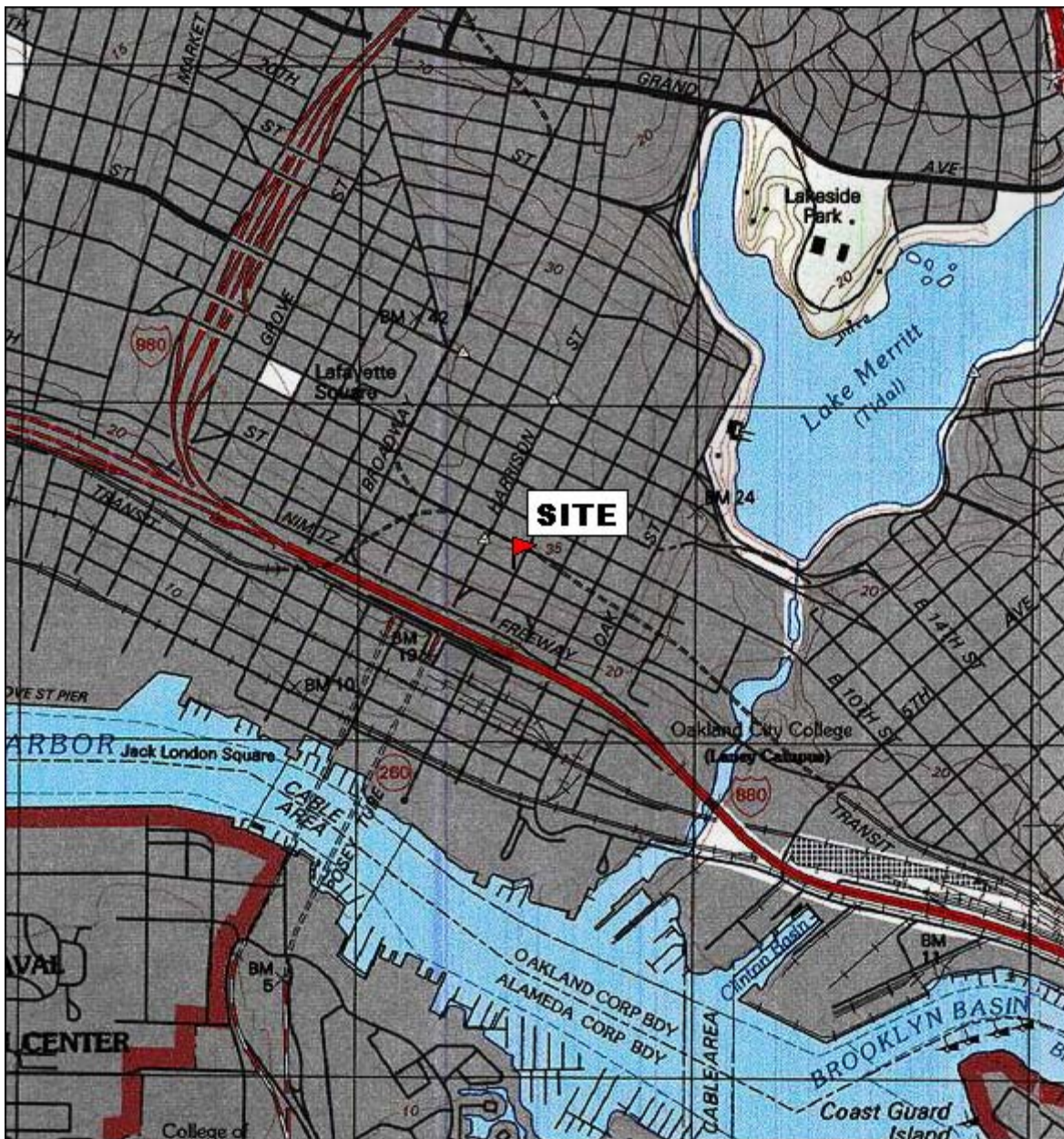
Mr. Victor Lum (1 hard copy)
Vic's Automotive
245 8th Street
Oakland, California 94607

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

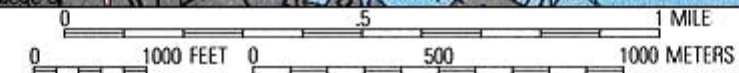
SWRCB's GeoTracker Information System (electronic)

FIGURES





TN \star MN
15 1/4°



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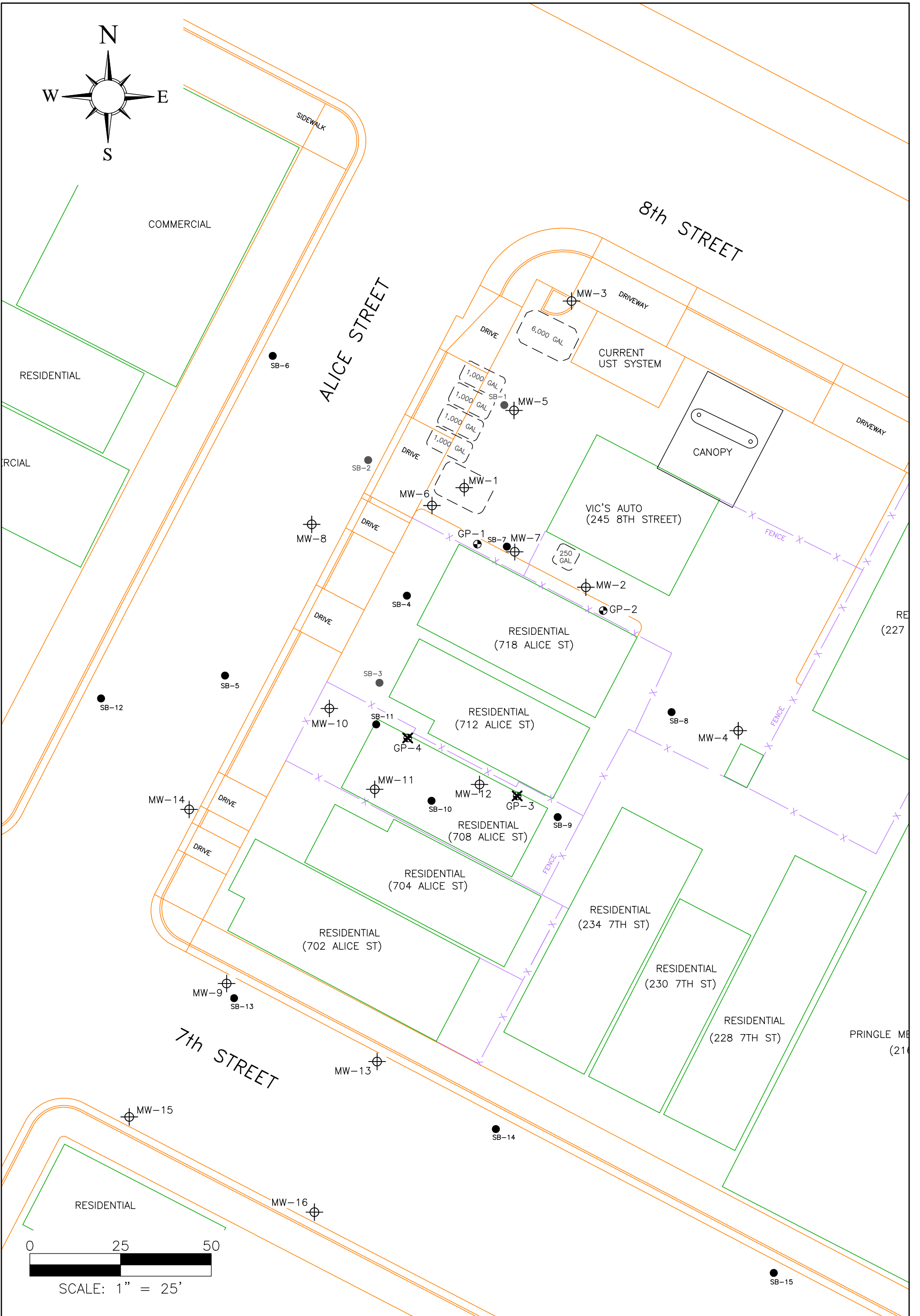
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2500 CAMINO DIABLO BLVD, SUITE 200, WALNUT CREEK, CA

SITE LOCATION MAP

245 8th STREET
OAKLAND, CALIFORNIA

FIGURE 1
PROJECT No. 116907



LEGEND

- ⊕ MONITORING WELL
- SOIL BORING (8/9/96)
- SOIL BORING (04/02 & 03/03)
- ⊕ SOIL GAS PROBE
- ⊕ X ABANDONED SOIL GAS PROBE

DRAFTED BY RJB 10-01-07
 REVISED BY RJB 10-08-09

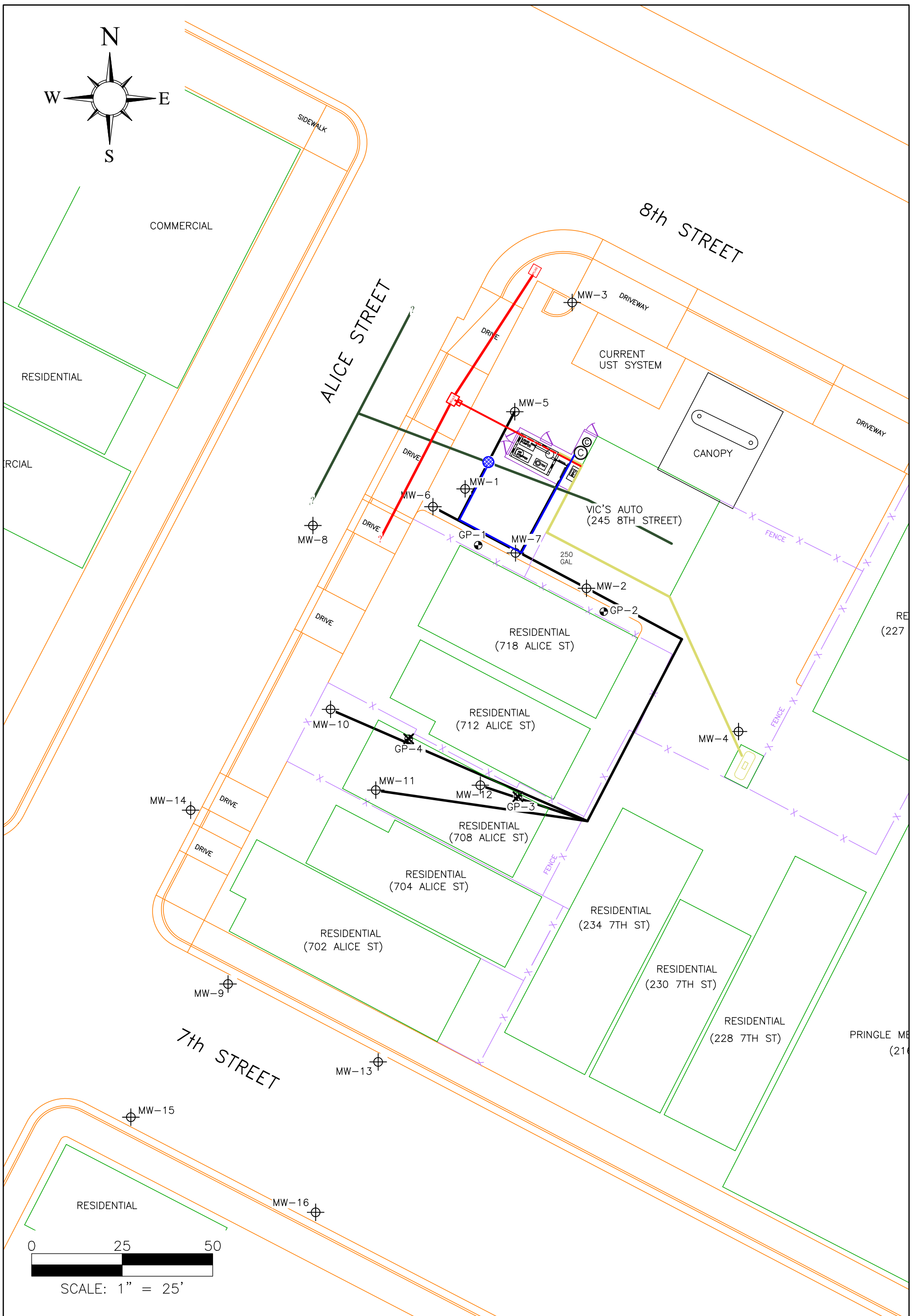


AEI CONSULTANTS
 2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK

SITE PLAN

245 8TH STREET
 OAKLAND, CALIFORNIA

FIGURE 2
 PROJECT NO. 116907



LEGEND

- MONITORING WELL
- SOIL BORING (8/9/96)
- SOIL BORING (04/02 & 03/03)
- SOIL GAS PROBE
- ABANDONED SOIL GAS PROBE
- HVDPE CONVEYANCE PIPING (~18 - 24" BGS)
- WATER DISCHARGE (~24" BGS)
- SANITARY SEWER (~36 - 48" BGS)
- TEMPORARY POWER SERVICE (~24" BGS)
- PROPANE LINE (~18 - 24" BGS)

DRAFTED BY RJB 10-01-07
 REVISED BY RJB 10-08-09



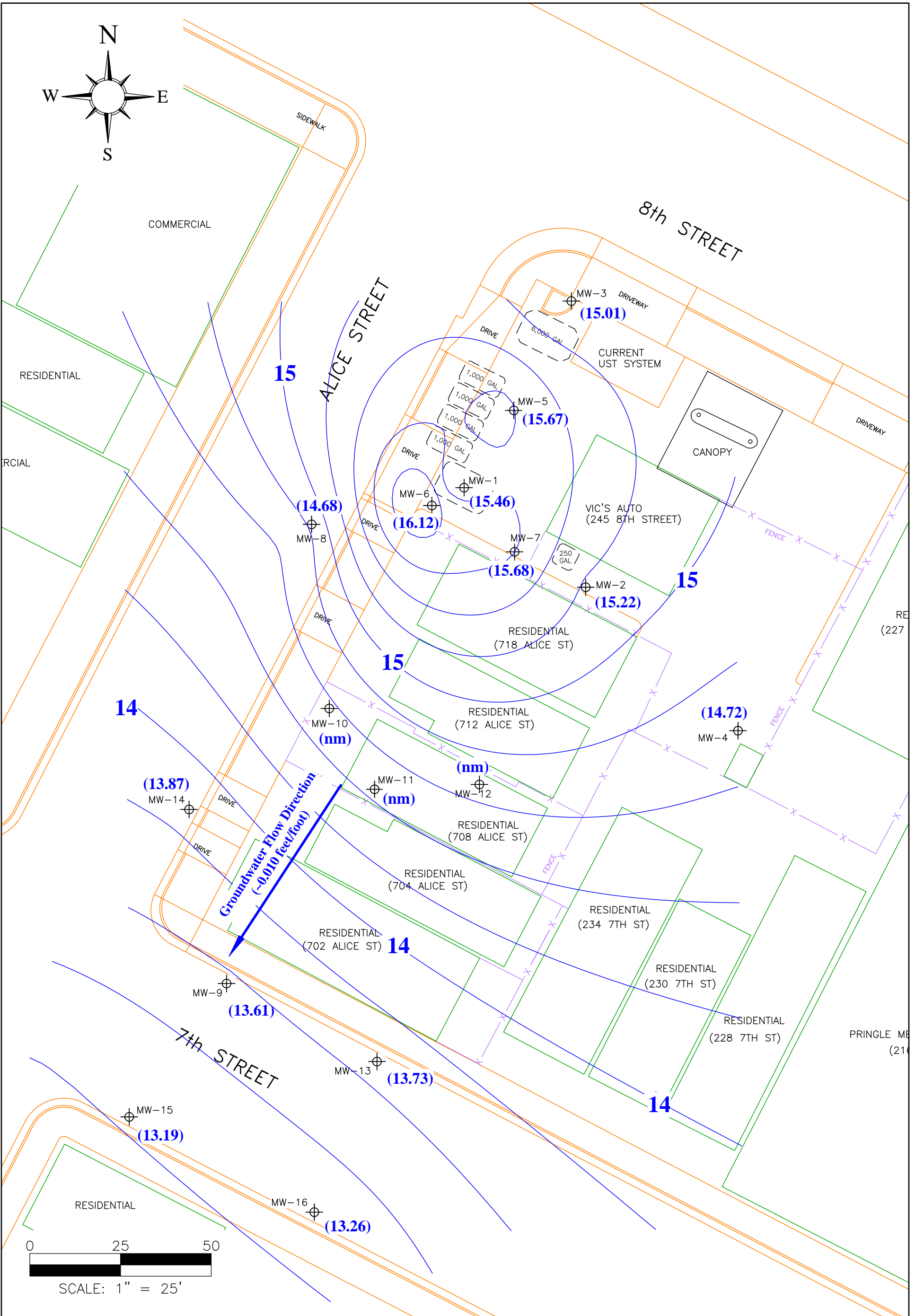
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2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK

SYSTEME LAYOUT PLAN

245 8TH STREET
 OAKLAND, CALIFORNIA

FIGURE 3
 PROJECT NO. 116907



LEGEND

⊕ MONITORING WELL

MW-1
15.46 = feet above mean sea level

Contour Interval = 0.2 feet
Contours plotted with Surfer V.7.0

nm = depth to water not measured

DRAFTED BY RJB 10-01-07
REVISED BY RJB 10-08-09

□
FORMER UST
LOCATION

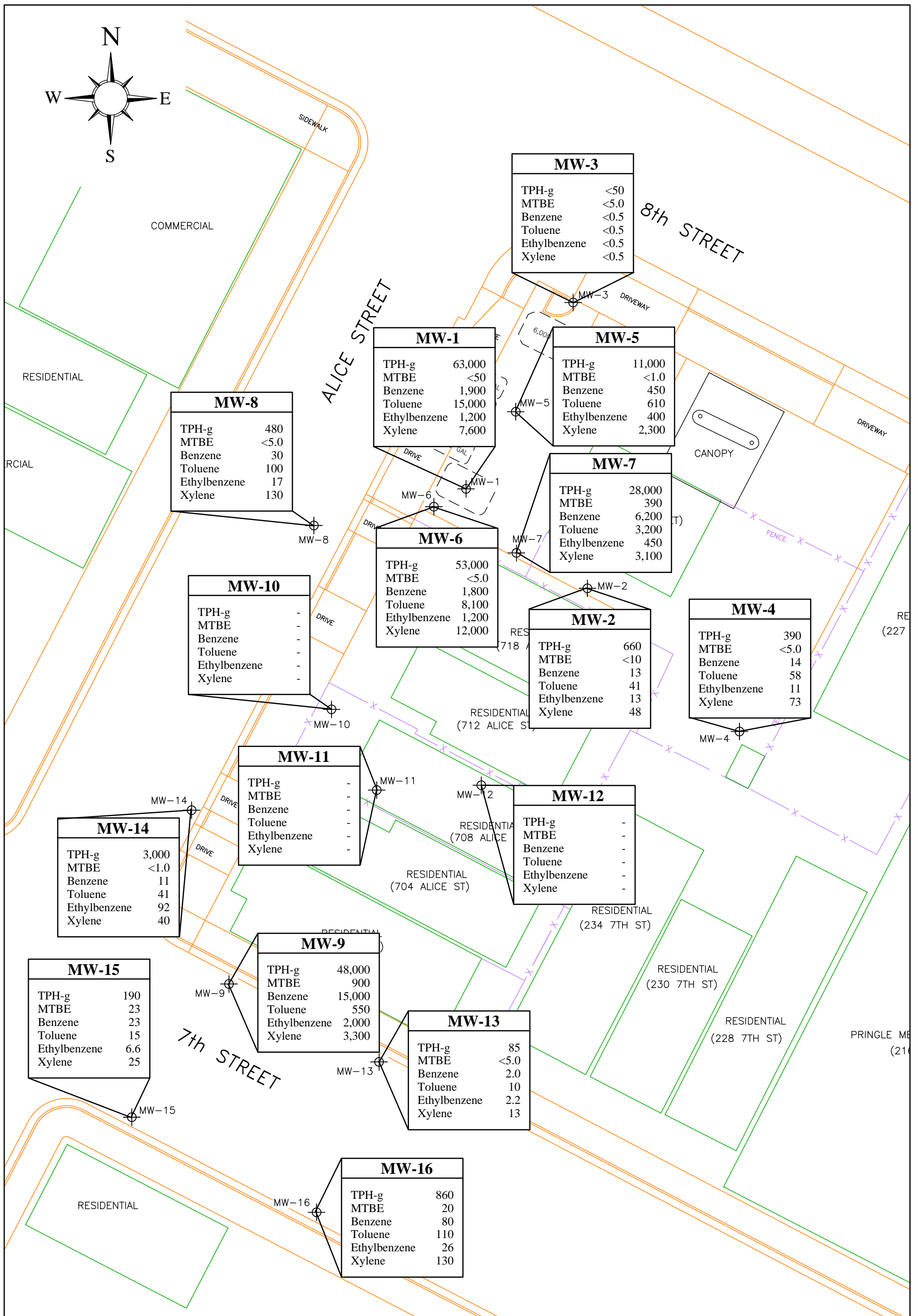
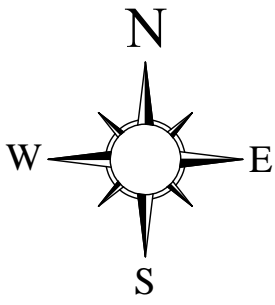
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2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK

**GROUNDWATER ELEVATION
CONTOURS (08/21/09)**

245 8TH STREET
OAKLAND, CALIFORNIA

FIGURE 4
PROJECT NO. 116907



LEGEND

⊕ MONITORING WELL

All groundwater sample analytical data in micrograms per liter (ug/L) or ppb

TPH-g = Total Petroleum Hydrocarbons as gasoline
 MTBE = Methyl tertiary-butyl ether
 NS/FP= not sampled / free product present

DRAFTED BY RJB 10-01-07
 REVISED BY RJB 10-08-09

◻
 FORMER UST
 LOCATION

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2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK

GROUNDWATER ANALYTICAL DATA (08/21/09)

245 8TH STREET
 OAKLAND, CALIFORNIA

FIGURE 5
 PROJECT NO. 116907

FIGURE 6: EXTRACTION WELL INFLUENT CONCENTRATIONS OVER TIME

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

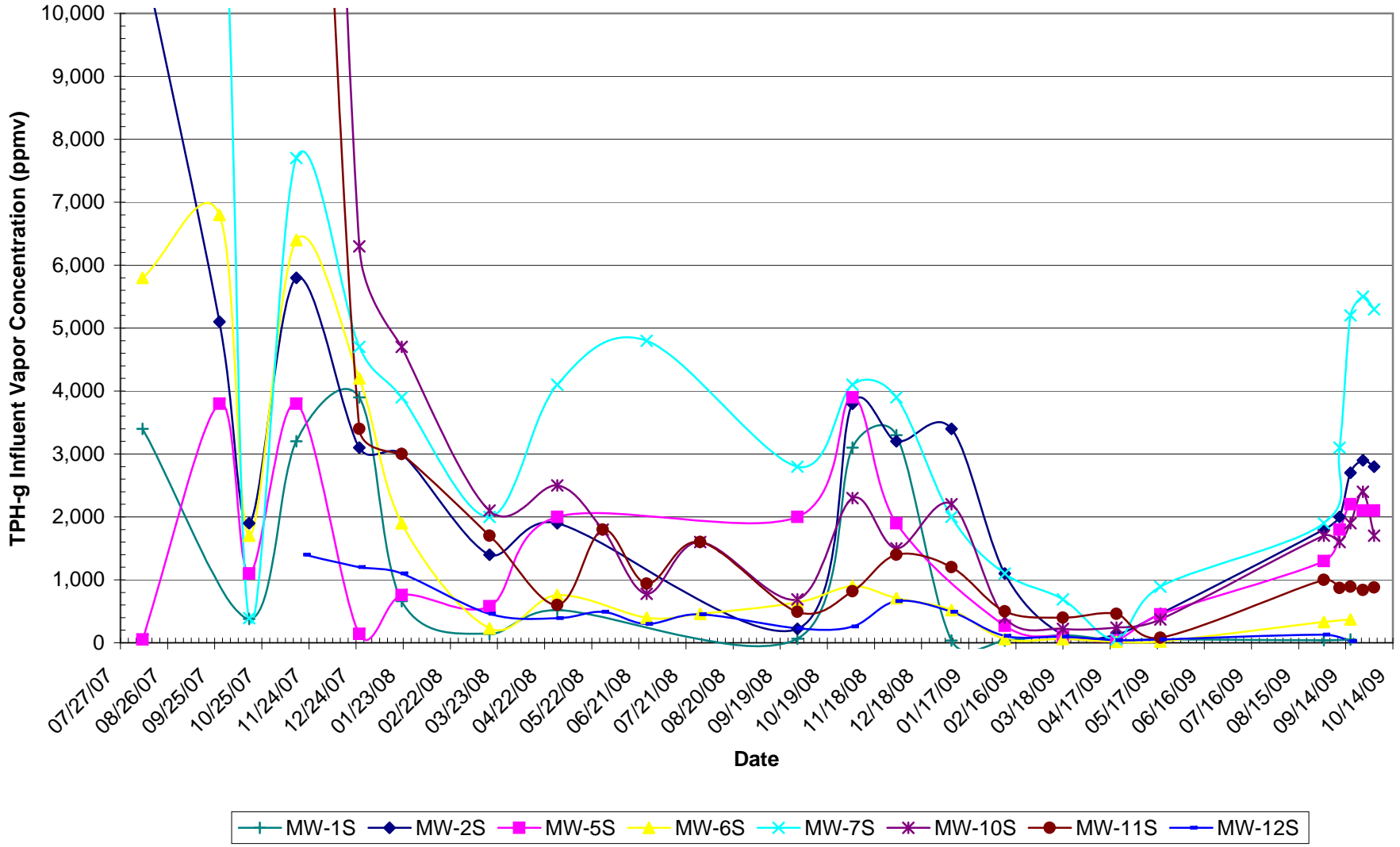


FIGURE 7: COMBINED SYSTEM INFLUENT CONCENTRATIONS OVER TIME

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

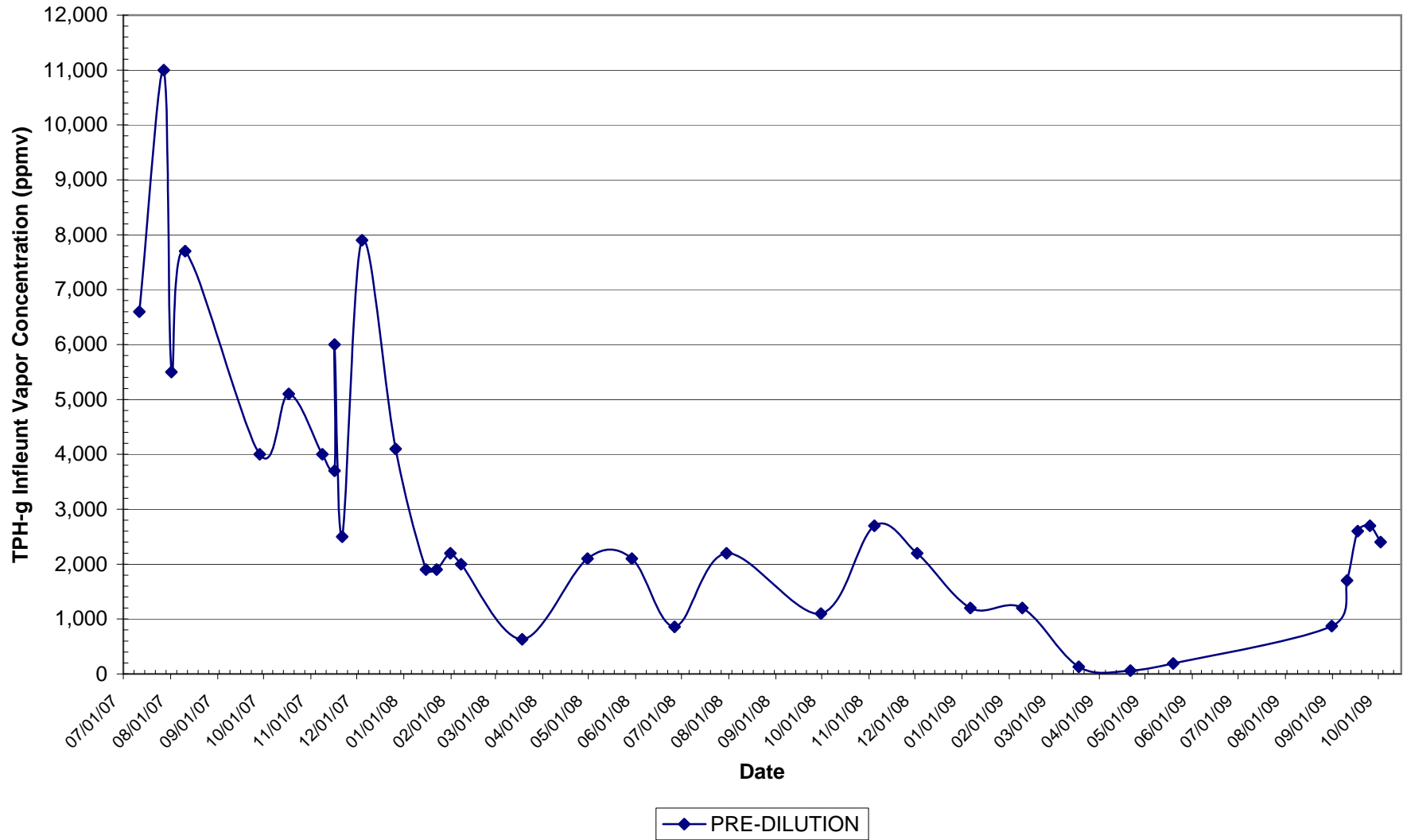


FIGURE 8: HYDROCARBON MASS REMOVAL RATES BASED ON LAB DATA

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

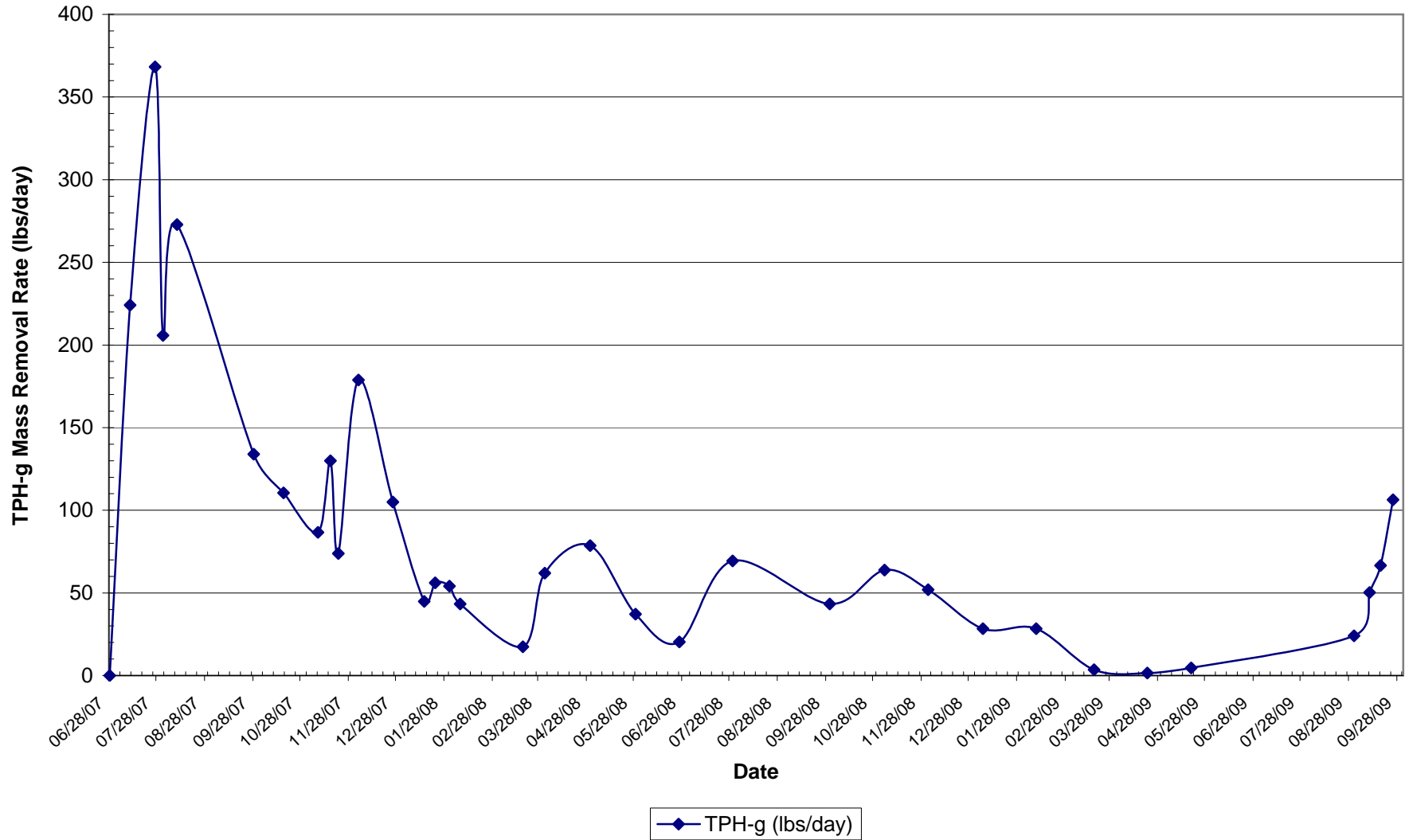
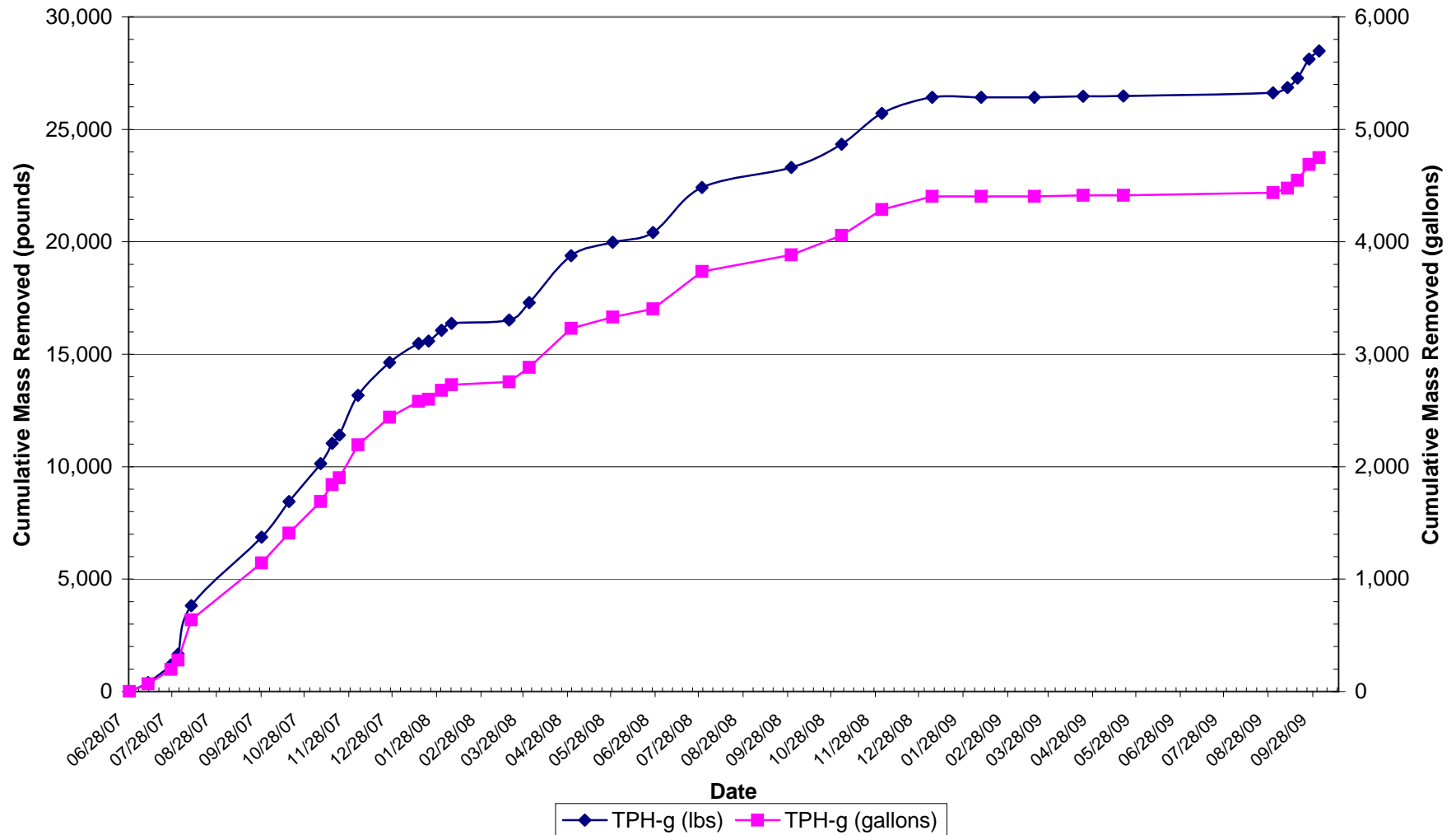


FIGURE 9: CUMULATIVE HYDROCARBON MASS REMOVED BASED ON LAB DATA

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



TABLES



TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY

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

Well ID (screen interval)	Date Collected	Well ^{1,2,5} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-1 (8-28)	06/29/01	27.73	16.52	11.21	14.89	1.63
	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	32.55	13.93	18.62	13.81	0.12
	08/05/05	32.55	15.40	17.15	15.39	0.01
	11/09/05	32.55	15.76	16.79	15.75	0.01
	02/09/06	32.55	13.52	19.03	13.50	0.02
	05/04/06	32.55	12.47	20.08	12.46	0.01
	08/04/06	32.55	15.11	17.44	15.09	0.02
	11/08/06	32.55	16.03	16.52	16.02	0.01
	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	-	-
	02/05/09	32.55	16.89	15.66	-	-
	05/05/09	32.55	15.69	16.86	-	-
08/21/09	32.55	17.09	15.46	-	-	

TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY

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

Well ID (screen interval)	Date Collected	Well ^{1,2,5} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-2 (8-28)	06/29/01	28.16	16.14	12.02	-	-
	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
	11/08/06	33.24	16.86	16.38	-	Sheen
	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	-	-
	02/05/09	33.24	17.98	15.26	-	-
	05/05/09	33.24	17.52	15.72	-	-
08/21/09		33.24	18.02	15.22	-	-

TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY

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

Well ID (screen interval)	Date Collected	Well ^{1,2,5} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-3 (10-25)	06/29/01	29.21	16.60	12.61	-	-
	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	12.06	-	-
	02/09/04	29.21	15.78	13.43	-	-
	05/10/04	29.21	15.77	13.44	-	-
	08/09/04	29.21	16.45	12.76	-	-
	11/09/04	29.21	17.26	11.95	-	-
	02/03/05	34.25	15.92	18.33	-	-
	05/09/05	34.25	15.03	19.22	-	-
	08/05/05	34.25	16.59	17.66	-	-
	11/09/05	34.25	16.82	17.43	-	-
	02/09/06	34.25	14.65	19.60	-	-
	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	-	-
	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	-	-
	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	-	-
	02/05/09	34.25	19.02	15.23	-	-
	05/05/09	34.25	17.78	16.47	-	-
08/21/09		34.25	19.24	15.01	-	-

TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY

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

Well ID (screen interval)	Date Collected	Well ^{1,2,5} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-4 (10-25)	06/29/01	29.38	17.71	11.67	-	-
	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	-	-
	08/04/03	29.38	17.51	11.87	-	-
	11/03/03	29.38	18.09	11.29	-	-
	02/09/04	29.38	16.67	12.71	-	-
	05/10/04	29.38	16.89	12.49	-	-
	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	-	-
02/05/09	34.42	19.72	14.70	-	-	
05/05/09	34.42	18.51	15.91	-	-	
08/21/09		34.42	19.70	14.72	-	-

TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY

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

Well ID (screen interval)	Date Collected	Well ^{1,2,5} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-5 (12-22)	02/03/05	33.33	14.23	19.10	-	-
	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	-	-
	02/05/09	33.33	17.42	15.91	-	-
	05/05/09	33.33	16.20	17.13	-	-
	08/21/09	33.33	17.66	15.67	-	-
MW-6 (12-22)	02/03/05	32.82	13.99	18.83	-	Sheen
	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	-	-
	02/05/09	32.82	16.53	16.29	-	-
	05/05/09	32.82	15.46	17.36	-	-
	08/21/09	32.82	16.70	16.12	-	-

TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY

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

Well ID (screen interval)	Date Collected	Well ^{1,2,5} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-7 (12-22)	02/03/05	33.07	14.17	18.90	-	Sheen
	05/09/05	33.07	14.47	18.60	14.44	0.03
	08/05/05	33.07	16.07	17.00	16.02	0.05
	11/09/05	33.07	16.47	16.60	16.35	0.12
	02/09/06	33.07	14.18	18.89	14.11	0.07
	05/04/06	33.07	13.12	19.95	13.11	0.01
	08/04/06	33.07	15.74	17.33	-	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	-	-
	08/05/08	33.07	17.23	15.84	-	-
	11/07/08	33.07	18.18	14.89	-	-
	02/05/09	33.07	17.26	15.81	-	-
	05/05/09	33.07	16.13	16.94	-	-
	08/21/09	33.07	17.39	15.68	-	-
MW-8 (12-22)	05/15/08	31.73	16.47	15.26	-	-
	08/05/08	31.73	16.88	14.85	-	-
	11/07/08	31.73	17.28	14.45	-	-
	02/05/09	31.73	16.78	14.95	-	-
	05/05/09	31.73	16.05	15.68	-	-
	08/21/09	31.73	17.05	14.68	-	-
MW-9 (12-22)	05/15/08	29.02	15.16	13.86	-	-
	08/05/08	29.02	15.38	13.64	-	-
	11/07/08	29.02	15.84	13.18	-	-
	02/05/09	29.02	15.38	13.64	-	-
	05/05/09	29.02	14.38	14.64	-	-
	08/21/09	29.02	15.41	13.61	-	-

TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY

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

Well ID (screen interval)	Date Collected	Well ^{1,2,5} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-10 (12-22)	02/03/05	31.17	12.65	18.52	-	-
	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	-	-	-
	02/05/09	31.17	nm	-	-	-
	05/05/09	31.17	nm	-	-	-
	08/21/09	31.17	nm	-	-	-
MW-11 (12-22)	02/03/05	31.78	13.39	18.39	-	Sheen
	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	-	-	-
	02/05/09	31.78	nm	-	-	-
	05/05/09	31.78	nm	-	-	-
	08/21/09	31.78	nm	-	-	-

TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY

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

Well ID (screen interval)	Date Collected	Well ^{1,2,5} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
MW-12 (12-22)	02/03/05	32.05	13.70	18.35	-	Sheen
	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	32.05	18.65	13.40	-	-
	02/14/08	32.05	16.50	15.55	-	-
	05/15/08	32.05	17.34	14.71	-	-
	08/05/08	32.05	17.61	14.41	-	-
	11/07/08	32.05	nm	-	-	-
	02/05/09	32.05	nm	-	-	-
	05/05/09	32.05	nm	-	-	-
	08/21/09	32.05	nm	-	-	-
MW-13 (12-22)	05/15/08	28.84	14.87	13.97	-	-
	08/05/08	28.84	15.10	13.74	-	-
	11/07/08	28.84	15.61	13.23	-	-
	02/05/09	28.84	15.09	13.75	-	-
	05/05/09	28.84	14.09	14.75	-	-
	08/21/09	28.84	15.11	13.73	-	-
MW-14 (12-22)	08/21/09	29.53	15.66	13.87	-	-
MW-15 (12-22)	08/21/09	29.22	16.03	13.19	-	-
MW-16 (12-22)	08/21/09	28.87	15.61	13.26	-	-

TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY

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

Well ID (screen interval)	Date Collected	Well ^{1,2,5} Elevation (ft amsl)	Depth to ³ Water (ft)	Groundwater ⁴ Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
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NOTES:

- not applicable

ft = feet

ft amsl = feet above mean sea level

nm = not measured

LNAPL = light non-aqueous phase liquid

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) Monitoring well top of casing (TOC) elevations for MW-8, 9, 13, 14, 15 & 16 were surveyed by Morrow Surveying on September 30, 2009

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	15.25	-1.00	-
29*	08/05/08	14.97	-0.27	-
30*	11/07/08	14.48	-0.49	-
31*	02/05/09	15.12	0.64	-
32*	05/05/09	16.15	1.03	-
33**	08/21/09	14.63	-1.51	SW (0.010)

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

**HVDPE System was shutdown for approximately three (3) months prior to sampling; therefore, groundwater elevation data was contoured. The groundwater elevation data and contours are shown on Figure 4.

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

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-1 (8-28)	06/29/01	1.63	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-	
	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	ns/fp	-
	11/09/04	0.24	ns/fp	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	ns/fp	-
	05/09/05	0.12	ns/fp	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	ns/fp	-
	11/09/05	0.01	ns/fp	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	ns/fp	-
	05/04/06	0.01	ns/fp	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	ns/fp	-
	11/08/06	0.01	ns/fp	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	ns/fp	-
	05/29/07	0.05	ns/fp	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	110,000	<1,000	730	22,000	1,700	8,200	-	
	11/07/08	0.00	15,000	290	460	1,400	84	2,700	-	
02/05/09	0.00	42,000	<1,000	1,100	8,500	880	4,500	-		
05/05/09	0.00	44,000	<50*	1,300	6,500	1,300	6,800	-		
08/21/09	0.00	63,000	<50*	1,900	15,000	1,200	7,600	-		

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

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-2 (8-28)	06/29/01	0.00	69,000	4,100/4,400*	7,200	6,100	1,500	7,000	-
	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	-
	05/04/06	Sheen	71,000	8,300	14,000	11,000	1,500	7,600	-
	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
	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	110	11	0.90	42	-
	08/05/08	0.00	520	<25	26	57	7.6	70	-
11/07/08	0.00	680	72	110	38	3.1	75	-	
02/05/09	0.00	1,000	82	130	50	15	120	-	
05/05/09	0.00	570	8.6*	22	33	9.2	73	-	
08/21/09	0.00	660	<10	13	41	13	48	-	

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

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-3 (10-25)	06/29/01	0.00	550	<5.0	<0.5	3.1	3.2	1.2	-	
	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	<0.5	-	
	02/03/05	0.00	160	<5.0	13	30	3	21	-	
	05/09/05	0.00	200	<5.0	<0.5	3.9	<0.5	<0.5	-	
	08/05/05	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-	
	11/09/05	0.00	130	<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	
	02/08/07 ¹	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	-
	05/29/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	-
	09/05/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	-
	12/12/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	-
	02/13/08	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	-
	05/15/08	0.00	<50	<5.0	<0.5	0.99	<0.5	<0.5	0.68	-
	08/05/08	0.00	91	<5.0	<0.5	2.0	8.0	1.3	8.0	-
	11/07/08	0.00	150	<5.0	<0.5	0.70	6.5	1.3	26	-
02/05/09	0.00	<50	<5.0	<0.5	1.7	<0.5	<0.5	<0.5	-	
05/05/09	0.00	<50	<5.0	<0.5	<0.5	0.76	<0.5	<0.5	-	
08/21/09	0.00	<50	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-	

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

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-4 (10-25)	06/29/01	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	10/10/01	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	01/09/02	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	04/24/02	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	07/24/02	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	11/05/02	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	02/04/03	0.00	<50	<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	-
	11/03/03	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	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
	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	-	
02/05/09	0.00	140	<5.0	0.87	19	3.9	29	-	
05/05/09	0.00	85	<5.0	1.2	8.0	2.5	19	-	
08/21/09	0.00	390	<5.0	14	58	11	73	-	

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

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-5 (12-22)	02/03/05	0.00	78,000	<1,000	7,600	13,000	2,200	9,600	-
	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
	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	-
	02/05/09	0.00	2,800	<0.5*	49	120	22	570	-
	05/05/09	0.00	12,000	<5.0*	360	1,300	250	2,000	-
	08/21/09	0.00	11,000	<1.0*	450	610	400	2,300	-
MW-6 (12-22)	02/03/05	Sheen	130,000	<1,000	2,400	33,000	2,400	15,000	-
	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	-
	02/08/07	0.34	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	ns/fp	-
	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
	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	-
	02/05/09	0.00	92,000	<50*	1,100	8,600	2,800	14,000	-
	05/05/09	0.00	58,000	<50*	560	4,300	2,400	13,000	-
	08/21/09	0.00	53,000	<5.0*	1,800	8,100	1,200	12,000	-

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

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)	Ethylbenzene (µg/L)	Xylenes (µg/L)	HVOC (µg/L)
MW-7 (12-22)	02/03/05	Sheen	220,000	18,000	45,000	44,000	3,500	18,000	-
	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
	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	-
	08/05/08	0.00	6,100	<150	1,100	1,100	120	740	-
	11/07/08	0.00	4,200	<50	580	570	44	400	-
	02/05/09	0.00	7,800	26*	1,100	810	190	690	-
05/05/09	0.00	7,200	77*	1,200	1,200	150	860	-	
08/21/09	0.00	28,000	390*	6,200	3,200	450	3,100	-	
MW-8 (12-22)	05/15/08	0.00	90	<5.0	0.62	2.4	<0.5	1.0	-
	08/05/08	0.00	81	<5.0	0.66	7.2	1.2	9.1	-
	11/07/08	0.00	430	<5.0	2.9	26	6.1	86	-
	02/05/09	0.00	<50	<5.0	0.98	1.3	<0.5	<0.5	-
	05/05/09	0.00	94	<5.0	0.91	7.1	2.2	17	-
	08/21/09	0.00	480	<5.0	30	100	17	130	-
MW-9 (12-22)	05/15/08	0.00	60,000	960	14,000	410	1,500	3,500	-
	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	-
	02/05/09	0.00	32,000	360*	11,000	310	1,600	2,700	-
	05/05/09	0.00	44,000	730*	14,000	520	1,900	3,400	-
	08/21/09	0.00	48,000	900*	15,000	550	2,000	3,300	-

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

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-10 (12-22)	02/03/05	0.00	36,000	<500	4,700	7,200	660	3,400	-
	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
	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	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	-	-	-	-	-	-	-	-
	02/05/09	-	-	-	-	-	-	-	-
	05/05/09	-	-	-	-	-	-	-	-
	08/21/09	-	-	-	-	-	-	-	-
MW-11 (12-22)	02/03/05	Sheen	170,000	<3,000	23,000	35,000	3,100	16,000	-
	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
	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	-	-	-	-	-	-	-	-
	02/05/09	-	-	-	-	-	-	-	-
	05/05/09	-	-	-	-	-	-	-	-
08/21/09	-	-	-	-	-	-	-	-	

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

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-12 (12-22)	02/03/05	Sheen	250,000	100,000	52,000	41,000	3,400	15,000	-	
	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	
	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	-	-	-	-	-	-	-	-	-
	02/05/09	-	-	-	-	-	-	-	-	-
05/05/09	-	-	-	-	-	-	-	-	-	
08/21/09	-	-	-	-	-	-	-	-	-	
MW-13 (12-22)	05/15/08	0.00	<250	6,700	18	<2.5	<2.5	<2.5	-	
	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	-	
	02/05/09	0.00	<50	14	<0.5	<0.5	<0.5	<0.5	-	
	05/05/09	0.00	<50	<5.0	0.53	3.2	1.1	7.5	-	
	08/21/09	0.00	85	<5.0	2.0	10	2.2	13	-	
MW-14 (12 - 22)	08/21/09	0.00	3,000	<1.0*	11	41	92	40	-	
MW-15 (12 - 22)	08/21/09	0.00	190	23	23	15	6.6	25	-	
MW-16 (12 - 22)	08/21/09	0.00	860	20	80	110	26	130	-	

TABLE 3: GROUNDWATER ANALYTICAL DATA SUMMARY

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)
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NOTES:

- not sampled/analyzed

ft = feet

ns/fp = not sampled / free product present

µg/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

* = MTBE by EPA Method 8260

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

2) Groundwater 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

TABLE 4: SOIL ANALYTICAL DATA SUMMARY

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

Sample ID	Date Collected	Depth (ft bgs)	TPHg (mg/kg)	TOG (mg/kg)	MTBE (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
MW-1 (6')	7/14/95	6	390	-	-	0.28	0.29	0.29	0.62
MW-1 (11')	7/14/95	11	370	-	-	0.24	0.24	0.23	0.61
MW-2 (6')	7/14/95	6	ND	24	-	ND	ND	ND	ND
MW-2 (11')	7/14/95	11	300	38	-	0.30	0.23	0.24	0.63
SB-1 (18')	8/18/96	18	9,100	-	47	57	580	190	1,000
SB-1 (24')	8/18/96	24	30	-	0.20	0.37	1.4	0.52	2.5
SB-2 (24')	8/18/96	24	1.1	-	0.032	0.11	0.17	0.018	0.099
SB-3 (24')	8/18/96	24	16	-	4.7	1.6	2.5	0.21	0.95
MW-3 15'	05/25/01	15	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-3 20'	05/25/01	20	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-4 15'	05/25/01	15	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-4 20'	05/25/01	20	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB-4 12'	04/02/03	12	25	-	ND<0.5	0.41	1.0	0.2	1.3
SB-4 15'	04/02/03	15	260	-	ND<1.7	3.5	15	4.5	23
SB-5 11'	04/03/03	11	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB-6 16'	04/02/03	16	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB-7 12'	04/02/03	12	700	-	ND<10	6.0	25	9.3	50
SB-7 18'	04/02/03	18	4,900	-	ND<25	65	260	77	400
SB-8 17'	04/02/03	17	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB-9 16'	04/03/03	16	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB-10 12'	04/03/03	12	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB-11 12'	04/03/03	12	1.4	-	ND<0.05	0.12	0.10	0.026	0.066
SB-11 16'	04/03/03	16	2,700	-	ND<30	29	170	49	250
SB-12 15'	04/02/03	15	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB-13 14'	04/03/03	14	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB-14 14'	04/03/03	14	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
SB-15 14'	04/03/03	14	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005

TABLE 4: SOIL ANALYTICAL DATA SUMMARY

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

Sample ID	Date Collected	Depth (ft bgs)	TPHg (mg/kg)	TOG (mg/kg)	MTBE (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
MW-5 16'	01/11/05	16	100	-	ND<5.0	2.6	6.0	1.5	8.4
MW-5 20'	01/11/05	20	37	-	ND<0.50	2.6	5.6	0.91	4.6
MW-7 16'	01/11/05	16	19	-	2.9	3.3	3.5	0.4	1.9
MW-7 20.5'	01/11/05	20.5	340	-	ND<5.0	9.6	25	7.0	35
MW-6 20'	01/19/05	20	14	-	ND<0.25	0.099	4.1	0.33	1.7
MW-10 15.5'	01/20/05	15.5	840	-	ND<2.0	11	58	16	83
MW-11 15.5'	01/19/05	15.5	3,200	-	ND<10	35	320	85	430
MW-12 15.5'	01/19/05	15.5	13	-	8.5	2.5	2.8	0.22	1.1
MW-9-15'	03/17/08	15	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-9-20'	03/17/08	20	1.5	-	ND<0.05	0.37	0.0052	0.047	0.067
MW-13-15'	03/17/08	15	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-13-20'	03/17/08	20	ND<1.0	-	0.086	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-8-15'	03/18/08	15	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-8-20'	03/18/08	20	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-14-16'	07/28/09	16	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-14-23'	07/28/09	23	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-15-16'	07/27/09	16	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-15-24'	07/27/09	24	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-16-16'	07/27/09	16	ND<1.0	-	ND<0.05	ND<0.005	ND<0.005	ND<0.005	ND<0.005
MW-16-25'	07/27/09	25	ND<1.0	-	0.24	ND<0.005	ND<0.005	ND<0.005	ND<0.005

NOTES:

ND = not detected at or above the laboratory reporting limit

mg/kg = milligrams per kilogram of soil

TPH-g = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

TOG = Total Oil and Grease

ESL - DW = Environmental Screening Levels for Residential Land Use

For Shallow Soil ≤10 feet bgs, Groundwater Is Current or Potential Drinking Water Resource

TABLE 5: SOIL GAS ANALYTICAL DATA SUMMARY

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)	Ethylbenzene (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-1-5²	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-1-10²	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-2-5²	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-2-10²	11/07/08	10	-	-	-	-	-	-	-	-	-

TABLE 5: SOIL GAS ANALYTICAL DATA SUMMARY

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

Well ID	Date Collected	Sample Depth (ft bgs)	TPH-g (µg/m ³)	MTBE (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	Xylenes (µg/m ³)	Ethanol (µg/m ³)	PCE (µg/m ³)	2-propanol (µg/m ³)
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	-	-	-	-	-	-	-	-	-
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 _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	-	-	-	-	-	-	-	-	-

TABLE 5: SOIL GAS ANALYTICAL DATA SUMMARY

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)
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NOTES:

- not sampled/analyzed

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

ft bgs = feet below ground surface

µg/m3 = micrograms per cubic meter

TPH-g = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

PCE = tetrachloroethene

ESLs = Environmental Screening Levels - for residential land use

CHHSLs = California Human Health Screening Levels

pp = CHHSL postponed

* = Sampling not possible due to seasonal wet soil conditions

^ = 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

TPH-g by modified EPA Method TO-3

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

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

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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	1,2	100%	OFF	21	-	-	-	-	3,400	ND<14	68	210	30	160
	09/28/07		OFF	OFF	20	-	-	-	-	-	-	-	-	-	-
	10/17/07		100%	100%	21	0	0.0	20.9	0.0	380	ND<14	26	58	5.7	46
	11/16/07	4	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		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	7	OFF	OFF	23	-	-	-	-	-	-	-	-	-	-
	07/30/08		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%	13	4,250	1.5	12.6	2.9	3,100	ND<180	63	140	14	120
	12/02/08		100%	100%	10	2,710	0.5	20.3	0.9	3,300	ND<14	57	150	12	110
	01/06/09		100%	100%	12	55	0	20.9	0.0	35	ND<0.68	3.6	5.6	0.22	1.8
	02/09/09		100%	100%	12	15	0	20.9	0.0	36	ND<0.68	4.7	6.7	0.35	3.1
	03/18/09	100%	100%	10	10	0	20.9	0.3	120	ND<1.0	1.8	9.6	0.69	4.2	
	04/21/09	100%	100%	11	10	0	20.4	0.2	42	ND<0.68	0.56	2.3	0.29	1.9	
	05/19/09	100%	100%	11.5	35	0	19.8	0.7	54	ND<0.68	1.1	6.2	0.79	4.0	
	08/31/09	100%	OFF	12	540	0	13.7	3.2	39	ND<0.68	0.54	2.0	0.27	2.8	
	09/10/09	OFF	OFF	15	-	-	-	-	-	-	-	-	-	-	
	09/17/09	100%	OFF	14	30	-	20.9	0.2	51	ND<2.7	1.3	8.8	0.59	4.2	
09/25/09	OFF	OFF	13	-	-	-	-	-	-	-	-	-	-		
10/02/09	OFF	OFF	14	-	-	-	-	-	-	-	-	-	-		

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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-2S	08/10/07	1	100%	100%	21	-	-	-	-	11,000	ND<110	280	770	81	360
	09/28/07		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	5	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		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	7	OFF	OFF	19.5	-	-	-	-	-	-	-	-	-	-
	06/26/08		OFF	OFF	23	-	-	-	-	-	-	-	-	-	-
	07/30/08		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<0.68	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
	01/06/09		100%	100%	11	1,950	0.5	17.7	1.6	3,400	ND<30	69	150	13	95
	02/09/09	100%	100%	12	900	0	16.4	1.4	1,100	ND<10	25	53	4.9	49	
	03/18/09	100%	100%	10	30	0	20.9	0	130	ND<0.68	1.1	5.6	0.43	2.6	
	04/21/09	100%	100%	11	15	0	17.1	1.4	130	ND<0.68	1.3	3.9	0.36	4.9	
	05/19/09	100%	100%	11.5	190	0	12.6	3.5	460	ND<2.0	4.3	13	2.0	19	
	08/31/09	100%	100%	12	980	0	8.5	5.1	1,800	ND<20	29	57	8.6	79	
	09/10/09	100%	100%	15	1,700	0.5	15.3	3.2	2,000	ND<15	52	100	6.4	74	
	09/17/09	100%	100%	14	2,400	0.5	19.8	1.6	2,700	ND<25	80	140	11	100	
	09/25/09	100%	100%	13	2,500	0.5	20.0	1.2	2,900	ND<10	67	130	10	77	
	10/02/09	100%	100%	14	2,800	0.5	20.2	1.1	2,800	ND<10	63	130	8.5	72	

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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	1	100%	100%	21	-	-	-	-	54	ND<0.68	0.60	2.7	0.60	3.7
	09/28/07		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	4	100%	100%	18	300	0.0	18.0	0.4	760	ND<4.5	3.3	16	2.4	28
	02/07/08		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	7	OFF	OFF	23	-	-	-	-	-	-	-	-	-	-
	07/30/08		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
	01/06/09	8	100%	100%	11	1,350	0.0	17.3	0.3	-	-		-	-	-
	02/09/09		100%	100%	12	260	0.0	19.7	0.3	270	ND<4.5	2.4	7.5	0.90	23
	03/18/09		100%	100%	10	50	0.0	20.8	0.3	99	ND<2.0	2.1	6.0	0.76	6.2
	04/21/09		100%	100%	11	20	0.0	20.3	0.3	40	ND<1.0	1.1	4.0	0.51	4.4
	05/19/09		100%	100%	11.5	400	0.0	19.4	0.5	450	ND<3.0	1.7	6.8	0.71	5.6
	08/31/09	100%	100%	-	660	-	13.5	3.3	1,300	ND<10	9.6	21	3.0	54	
	09/10/09	100%	100%	15	1,100	0.0	16.8	1.9	1,800	ND<6.8	18	49	4.0	110	
	09/17/09	100%	100%	14	1,050	0.0	19.2	1.2	2,200	ND<6.8	19	66	6.6	160	
	09/25/09	100%	100%	13	1,100	0.0	19.1	1.3	2,100	ND<2.7	11	44	5.9	110	
	10/02/09	100%	100%	14	1,300	0.0	19.2	1.3	2,100	ND<2.7	9.4	35	4.9	100	

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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-6S	08/10/07	1	100%	100%	21	-	-	-	-	5,800	ND<30	69	280	24	140	
	09/28/07		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	
	11/04/08		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	
	01/06/09		100%	100%	11	280	0.0	19.9	0.4	520	ND<14	4.1	17	2.3	32	
	02/09/09		100%	100%	12	80	0.0	20.9	0.1	60	ND<0.68	1.4	3.4	0.49	8.2	
	03/18/09		100%	100%	10	70	0.0	20.9	0.0	61	ND<3.0	1.3	1.7	0.38	4.0	
	04/21/09		100%	100%	11	10	0.0	20.9	0.0	18	0.98	0.41	0.47	0.13	1.4	
	05/19/09		100%	100%	11	-	-	-	-	20	ND<0.68	0.59	0.98	0.17	2.1	
	08/31/09		100%	100%	12	170	0.0	18.9	0.9	330	ND<2.7	5.5	27	3.7	26	
	09/10/09	OFF	OFF	15	-	-	-	-	-	-	-	-	-	-		
	09/17/09	100%	OFF	14	560	0.0	19.6	0.3	370	ND<3.0	1.9	6.9	1.4	9.2		
	09/25/09	OFF	OFF	13	-	-	-	-	-	-	-	-	-	-		
	10/02/09	OFF	OFF	14	-	-	-	-	-	-	-	-	-	-		

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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	1			21	-	-	-	-	19,000	ND<450	620	590	27	100	
	09/28/07		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	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	
	01/06/09	100%		100%	11	3,150	0.5	15.4	2.3	2,000	ND<4.5	19	43	3.0	77	
	02/09/09	100%		100%	12	1,050	0.0	13.4	2.5	1,100	ND<10	19	21	1.8	34	
	03/18/09	100%		100%	10	440	0.0	15.3	2.7	690	ND<14	28	22	1.9	17	
	04/21/09	100%		100%	11	30	0.0	20.4	1.3	53	4.5	2.7	2.2	0.28	3.0	
	05/19/09	100%		100%	11.5	490	0.0	9.2	5.2	890	ND<14	29	33	1.8	20	
	08/31/09	100%		100%	12	1,450	0.0	9.3	8.2	1,900	ND<30	52	37	3.0	64	
	09/10/09	100%		100%	15	3,800	0.0	10.6	4.2	3,100	ND<20	68	71	3.8	130	
	09/17/09	100%		100%	14	7,000	2.0	18.8	1.8	5,200	ND<35	120	140	9.0	200	
	09/25/09	100%		100%	13	7,600	2.0	18.8	1.6	5,500	ND<25	89	130	8.0	150	
	10/02/09	100%		100%	14	8,050	2.0	18.8	1.6	5,300	ND<35	100	160	11	210	

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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)	Ethylbenzene (ppmv)	Xylenes (ppmv)	
MW-10S	11/21/07	7	100%	100%	19	>44,000	43.0	17.0	2.2	28,000	ND<68	300	800	63	230	
	12/26/07		100%	100%	18	3,900	2.5	19.4	0.5	6,300	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	38	230	49	310	
	02/07/08		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	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		100%	100%	17	1,050	0.0	20.3	0.8	1,600	ND<14	16	50	9.5	95	
	09/30/08		100%	OFF	16.5	640	0.0	20.9	0.4	690	ND<4.0	10	29	5.1	53	
	11/04/08		OFF	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	
	01/06/09		100%	100%	11	1,150	0.0	18.2	1.2	2,200	ND<15	31	64	6.7	64	
	02/09/09		100%	100%	12	310	0.0	17.8	0.7	400	ND<2.7	5.6	12	1.1	21	
	03/18/09		100%	100%	10	130	0.0	18.7	0.7	220	ND<10	8.9	7.7	1.4	10	
	04/21/09		100%	100%	11	110	0.0	16.9	1.0	240	ND<5.0	4.4	5.7	0.98	9.6	
	05/19/09		100%	100%	11.5	75	0.0	12.2	2.3	370	ND<5.0	4.9	7.7	1.2	13	
	08/31/09		100%	100%	12	650	-	8.3	0.0	1,700	ND<10	18	22	4.4	67	
	09/10/09		100%	100%	15	730	0.0	15.9	2.6	1,600	ND<10	29	63	5.3	75	
	09/17/09		100%	100%	14	1,300	0.0	19.4	1.5	1,900	ND<15	40	82	7.2	85	
09/25/09	100%	100%	13	450	0.0	19.7	1.2	2,400	ND<10	37	81	8.1	72			
10/02/09	100%	100%	14	2,150	0.0	19.6	1.1	1,700	ND<20	38	79	6.6	76			

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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	7	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		100%	100%	17	980	0.0	20.9	0.3	1,600	ND<30	22	50	13	100	
	09/30/08		100%	OFF	16.5	510	0.0	20.9	0.2	490	ND<10	11	22	3.8	40	
	11/04/08		OFF	100%	13	360	0.0	16.5	1.4	820	ND<20	22	21	5.2	57	
	12/02/08		100%	100%	10	320	0.0	20.9	0.2	1,400	ND<35	23	57	6.3	73	
	01/06/09		100%	100%	11	790	0.0	18.9	0.6	1,200	ND<20	29	53	5.7	56	
	02/09/09		100%	100%	12	380	0.0	17.6	0.8	500	ND<6.0	14	18	2.3	28	
	03/18/09		100%	100%	10	280	0.0	17.3	1.2	400	ND<3.0	48	18	3.4	20	
	04/21/09		100%	100%	11	210	0.0	16.9	1.2	460	ND<20	32	20	3.3	31	
	05/19/09		100%	100%	11.5	200	0.0	15.5	1.5	80	ND<3.0	5.1	3.2	0.58	6.7	
	08/31/09		100%	100%	12	360	-	9.1	3.5	1,000	ND<20	36	17	3.7	63	
	09/10/09		100%	100%	15	420	0.0	17.7	1.5	870	ND<30	38	32	5.7	68	
	09/17/09		100%	100%	14	490	0.0	20.6	0.7	890	ND<25	27	39	4.1	63	
09/25/09	100%	100%	13	510	0.0	20.6	0.5	840	ND<30	19	31	2.6	33			
10/02/09	100%	100%	14	820	0.0	20.6	0.5	880	ND<15	22	40	3.9	55			

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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-12S	11/21/07	7	50%	50%	19	110	0.0	20.9	0.7	1,400	ND<100	87	51	10	40	
	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		100%	100%	17	240	0.0	20.9	0.3	450	ND<5.0	4.5	20	3.8	32	
	09/30/08		100%	OFF	16.5	190	0.0	20.9	0.2	230	ND<5.0	3.9	12	2.2	28	
	11/04/08		OFF	100%	13	140	0.0	18	0.8	260	ND<5.0	6.5	7.4	1.2	14	
	12/02/08		100%	100%	10	150	0.0	20.5	0.6	660	ND<5.0	7.3	29	4.5	66	
	01/06/09		100%	100%	11	380	0.0	20.3	0.4	490	ND<6.8	9.1	18	2.2	37	
	02/09/09		100%	100%	12	70	0.0	20.1	0.3	110	ND<5.0	4.2	4.0	0.58	8.1	
	03/18/09		100%	100%	10	25	0.0	20.9	0.2	98	ND<5.0	7.6	4.2	0.53	2.5	
	04/21/09		100%	100%	11	30	0.0	20.6	0.5	40	3.4	6.5	2.1	0.41	2.0	
	05/19/09		100%	100%	11.5	20	0.0	19.2	0.7	52	ND<3.0	4.7	1.8	0.47	3.5	
	08/31/09		100%	OFF	12	20	-	16.0	1.4	130	ND<3.0	3.9	3.0	0.67	8.0	
	09/10/09		OFF	OFF	15	-	-	-	-	-	-	-	-	-	-	
	09/17/09		100%	OFF	14	20	-	20.8	0.4	24	ND<2.0	1.7	1.8	0.18	1.9	
09/25/09	OFF	OFF	13	-	-	-	-	-	-	-	-	-	-			
10/02/09	OFF	OFF	14	-	-	-	-	-	-	-	-	-	-			

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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)
AS	10/17/07	7	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		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	20.9	0.0	-	-	-	-	-	-
	11/04/08		100%	100%	-	0	0.0	20.9	0.1	21	ND<0.68	0.38	0.91	0.13	2.6
	12/02/09		100%	100%	-	0	0.0	20.9	0.1	10	ND<0.68	ND<0.077	0.22	ND<0.057	0.79
	01/06/09		100%	100%	-	0	0.0	20.9	0.1	150	ND<1.5	1.9	6.9	1.1	22
	02/09/09		100%	100%	-	15	0.0	20.9	0.0	18	ND<0.68	0.28	0.57	0.078	1.5
	03/18/09		100%	100%	-	0	0.0	20.9	0.0	ND<7.0	ND<0.68	ND<0.077	0.085	ND<0.057	0.15
	04/21/09		100%	100%	-	0	0.0	20.9	0.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	05/19/09		100%	100%	-	0	0.0	20.9	0.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057
	08/31/09		100%	100%	-	0	0.0	20.9	0.0	ND<7.0	ND<0.68	ND<0.077	0.096	ND<0.057	0.24
	09/10/09		100%	100%	-	0	0.0	20.9	0.0	-	-	-	-	-	-
09/17/09	100%	100%	-	0	0.0	20.9	0.0	-	-	-	-	-	-		
09/25/09	100%	100%	-	0	0.0	20.9	0.0	-	-	-	-	-	-		
10/02/09	100%	100%	-	0	0.0	20.9	0.0	7.3	ND<1.0	0.27	0.57	ND<0.057	0.93		

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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		-	-	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
	01/06/09		-	-	11	1,300	0.0	18.4	1.2	1,200	ND<80	21	58	5.7	78
	02/09/09		-	-	12	880	0.0	15.6	1.5	1,200	ND<10	17	31	3.1	46
	03/18/09		-	-	10	60	0.0	20.8	0.4	130	ND<0.68	5.2	11	1.2	7.1
	04/21/09		-	-	11	35	0.0	19.9	0.3	58	ND<1.4	1.9	3.5	0.44	3.7
	05/19/09		-	-	11.5	100	0.0	19.2	0.8	190	ND<2.7	3.4	7.3	0.95	8.0
	08/31/09		-	-	12	400	-	13.8	26	870	ND<4.5	11	21	3	29
	09/10/09		-	-	15	1,650	0.5	15.9	2.5	1,700	ND<20	34	62	5.8	110
09/17/09	8	-	-	14	1,950	0.5	19.4	1.4	2,600	ND<20	52	100	7.5	140	
09/17/09	9	-	-	7	520	0.0	20.3	0.5	-	-	-	-	-	-	
09/25/09		-	-	13	2,450	0.5	19.6	1.2	2,700	ND<6.8	36	80	6.6	91	
10/02/09		-	-	14	2,200	0.0	19.6	1.1	2,400	ND<20	43	85	8.3	110	

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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)	Ethylbenzene (ppmv)	Xylenes (ppmv)
POSTD	06/28/07	6,7	-	-	-	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		-	-	-	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		-	-	-	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		-	-	-	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		-	-	-	-	-	-	-	-	-	-	-	-	-
	09/30/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	11/04/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	12/02/08		-	-	-	-	-	-	-	-	-	-	-	-	-
	01/06/09		-	-	-	-	-	-	-	-	-	-	-	-	-
	02/09/09		-	-	-	-	-	-	-	-	-	-	-	-	-
	03/18/09		-	-	-	-	-	-	-	-	-	-	-	-	-
	04/21/09		-	-	-	-	-	-	-	-	-	-	-	-	-
	05/19/09		-	-	-	-	-	-	-	-	-	-	-	-	-
08/31/09	-	-	-	-	-	-	-	-	-	-	-	-	-		
09/10/09	-	-	-	-	-	-	-	-	-	-	-	-	-		
09/17/09	-	-	-	-	-	-	-	-	-	-	-	-	-		
09/25/09	-	-	-	-	-	-	-	-	-	-	-	-	-		
10/02/09	-	-	-	-	-	-	-	-	-	-	-	-	-		

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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	7	-	-	-	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	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	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	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	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	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	ND<0.057	
	07/30/08		-	-	-	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	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	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		
	01/06/09		-	-	-	0	0.0	17.7	2.3	26	ND<0.68	ND<0.077	0.52	0.11	1.9		
	02/09/09		-	-	-	0	0.0	16.1	2.6	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057	ND<0.057	
03/18/09	-	-	-	0	0.0	18.3	2.0	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057	ND<0.057			
04/21/09	-	-	-	0	0.0	18.3	2.2	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057	ND<0.057			
05/19/09	-	-	-	0	0.0	17.9	2.2	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057	ND<0.057			
08/31/09	-	-	-	0	0.0	16.0	3.0	ND<7.0	ND<0.68	ND<0.077	0.069	ND<0.057	0.35				
09/10/09	-	-	-	0	0.0	18.1	2.0	-	-	-	-	-	-	-			
10/02/09	-	-	-	0	0.0	17.6	2.5	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057	ND<0.057			
DL						5.0	0.1	0.1	0.1	7.0	0.68	0.077	0.065	0.057	0.057		

TABLE 6: HVDPE VAPOR ANALYTICAL & FIELD SCREENING DATA SUMMARY

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

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)	Ethylbenzene (ppmv)	Xylenes (ppmv)
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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 port at thermal/catalytic oxidizer inlet

- not sampled/analyzed

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

1) Individual well water separator 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) Field screened and sampled with MW-1S, MW-6S, and MW-12S OFF.

9) Field screened and sampled with MW-1S, MW-6S, and MW-12S ON. Note the significant loss of applied vacuum and decrease in the concentration of hydrocarbons.

10)

TABLE 7: GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA SUMMARY

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)	Ethylbenzene (µg/L)	Xylenes (µg/L)
INF	06/26/07	1	-	20,000	ND<1,500	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	ND<250	990	3,000	380	3,600
	11/07/07		-	21,000	ND<500	730	2,600	300	4,800
	12/12/07	5	-	75,000	ND<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	520
	04/01/08		-	2,400	60	37	140	20	390
	04/30/08		-	8,600	170	150	630	160	2,200
	05/29/08		-	13,000	310	140	470	170	1,800
	06/26/08		-	7,600	260	130	360	82	1,100
	07/30/08		-	9,400	220	160	510	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
	01/06/09			7,800	ND<250	160	460	58	1,600
	02/09/09			11,000	320	250	660	84	1,700
	03/18/09	7		2,000	-	96	180	21	220
	04/21/09			590	-	31	41	9	100
	05/19/09			1,100	-	53	99	15	190
	08/31/09			4,200	-	110	230	41	640
	10/02/09			-	-	-	-	-	-

TABLE 7: GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA SUMMARY

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)	Ethylbenzene (µg/L)	Xylenes (µg/L)
POST-AS	06/26/07	1	-	1,000	92	19	34	6.8	48
	06/27/07		-	420	45	7.8	13	2.1	22
	06/28/07		-	6,400	570	610	890	59	750
	07/12/07		-	-	-	-	-	-	-
	08/22/07	2	-	5,300	100	610	2,000	300	2,400
	10/17/07	3,4	-	84	12	0.90	2.6	ND<0.5	7
	11/07/07		-	120	41	0.71	1.9	ND<0.5	12
	12/12/07	5	-	65,000	ND<250	210	3,400	1,300	11,000
	01/08/08		-	130	55	0.85	2.8	ND<0.5	12
	03/18/08		-	120	190	2.5	3.5	0.77	7.2
	04/01/08		-	140	ND<5.0	5.6	0.60	ND<0.5	1.7
	04/30/08		-	ND<50	11	0.56	ND<0.5	ND<0.5	1.1
	05/29/08		-	100	20	ND<0.5	ND<0.5	ND<0.5	6.7
	06/26/08		-	70	27	ND<0.5	1.1	ND<0.5	6.3
	07/30/08		-	130	16	1.1	3.3	0.73	10
	09/30/08		-	94	15	0.85	1.6	ND<0.5	5
	11/04/08			ND<50	27	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/02/08			ND<50	6.3	ND<0.5	ND<0.5	ND<0.5	1.5
	01/06/09			ND<50	28	ND<0.5	ND<0.5	ND<0.5	0.77
	02/09/09			250	37	3.1	8.7	1.3	28
	03/18/09	7		120	-	2.4	4.8	0.81	6.9
	04/21/09			ND<50	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	05/19/09			57	-	1.1	2.3	ND<0.5	4.4
	08/31/09			190	-	5.4	11	2.1	29
	10/02/09			-	-	-	-	-	-

TABLE 7: GROUNDWATER TREATMENT SYSTEM ANALYTICAL DATA SUMMARY

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)	Ethylbenzene (µg/L)	Xylenes (µg/L)
POST-C1	06/26/07	1	-	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	08/22/07	2	-	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/17/07	3,4	-	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
EFF	06/26/07	1	ND<5.0	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	08/22/07	2	-	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/17/07	3,4	-	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/07/07	-	-	ND<50	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/12/07	5	-	ND<50	17	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/08/08	-	-	ND<50	17	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	03/18/08	6	ND<5.0	ND<50	50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	04/01/08	-	-	-	-	-	-	-	-
	04/30/08	-	ND<5.0	ND<50	30	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	05/29/08	-	-	ND<50	27	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	06/26/08	-	-	ND<50	37	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	07/30/08	-	-	ND<50	30	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	09/23/08	-	ND<5.0	-	-	-	-	-	-
	09/30/08	-	-	ND<50	18	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11/04/08	-	-	ND<50	25	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/02/08	-	-	ND<50	17	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	01/06/09	-	-	ND<50	32	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	02/09/09	-	ND<5.0	ND<50	9.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	03/18/09	7	-	ND<50	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	04/21/09	-	ND<5.0	ND<50	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5
05/19/09	-	-	ND<50	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5	
08/31/09	-	-	ND<50	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5	
10/02/09	-	-	-	-	-	-	-	-	
DL	-	-	5.0	50	5.0	0.5	0.5	0.5	0.5

NOTES:

- not sampled/analyzed

µg/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-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 discharge to sanitary sewer
- 2) 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
- 5) On November 20, 2007, extraction wells MW-10, MW-11, and MW-12 were brought online
- 6) Metal analysis no longer required per email from EBMUD, dated January 31, 2008
- 7) On February 27, 2009, the carbon in the PV1000 carbon absorber was changed out by Siemens Water Technologies
- 8)
- 9)
- 10)

TABLE 8: 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 (%)	
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	
	02/09/09	8	0.00	1.00	0.0	0.0	19.7	0.8	
	03/10/09		0.00	1.80	0.0	0.0	19.3	1.3	
	02/09/09	8	0.00	1.00	0.0	0.0	19.7	0.8	
	03/10/09		0.00	1.80	0.0	0.0	19.3	1.3	
	04/21/09		0.00	1.50	0.0	0.0	19.5	0.7	
	05/01/09		0.00	1.50	0.0	0.0	20.4	0.6	
	08/31/09			-	-	-	-	-	-
	10/02/09			0.10	1.70	0.0	0.0	19.9	0.5
	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	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	
02/09/09		8	0.00	1.20	10	0.0	19.8	0.7	
03/10/09			0.39	9.00	0.0	0.0	19.5	1.0	
02/09/09		8	0.00	1.20	10	0.0	19.8	0.7	
03/10/09			0.39	9.00	0.0	0.0	19.5	1.0	
04/21/09			0.10	6.00	0.0	0.0	19.8	0.5	
05/01/09		1	-	-	-	-	-	-	
08/31/09				-	-	-	-	-	
10/02/09		1		-	-	-	-	-	

TABLE 8: 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 (%)	
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	
	02/09/09	8	0.00	2.20	0.0	0.0	20.7	0.2	
	03/10/09	1	-	-	-	-	-	-	
	02/09/09	8	0.00	2.20	0.0	0.0	20.7	0.2	
	03/10/09	1	-	-	-	-	-	-	
	04/21/09		0.00	2.00	0.0	0.0	20.9	0.0	
	05/01/09		0.00	2.00	0.0	0.0	20.9	0.2	
	08/31/09		-	-	-	-	-	-	
	10/02/09			0.05	2.20	0.0	0.0	20.7	0.1
	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	
02/09/09		8,1	-	-	-	-	-	-	
03/10/09		1	-	-	-	-	-	-	
02/09/09		8,1	-	-	-	-	-	-	
03/10/09		1	-	-	-	-	-	-	
04/21/09			0.50	3.00	0.0	0.0	20.9	0.0	
05/01/09		1	-	-	-	-	-	-	
08/31/09			-	-	-	-	-	-	
10/02/09		1		0.30	-	-	-	-	

TABLE 8: 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 (%)	
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	-	-	-	-	-	-	

TABLE 8: 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 (%)
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

NOTES:

- not sampled/analyzed

in-H2O = 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 approximatley 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) HVDPE system was shutdown on January 6, 2009, approximatley one (1) month before screening GP-1 & GP-2

TABLE 9: WELLHEAD VACUUM & DROP TUBE DEPTH DATA SUMMARY

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

Date	MW-1			MW-2			MW-5			MW-6			MW-7		
	Casing Vacuum (in-Hg)	Stinger Vacuum (in-Hg)	Stinger Depth (ft toc)	Casing Vacuum (in-Hg)	Stinger Vacuum (in-Hg)	Stinger Depth (ft toc)	Casing Vacuum (in-Hg)	Stinger Vacuum (in-Hg)	Stinger Depth (ft toc)	Casing Vacuum (in-Hg)	Stinger Vacuum (in-Hg)	Stinger Depth (ft toc)	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	OBSTRUCTED		
12/26/07	-	OFF	-	OBSTRUCTED			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
01/06/09	3.0	9.0	25.0	5.0	10.0	20.0	n/a	11.0	22.0	8.0	9.0	21.0	6.0	10.0	21.0
02/09/09	2.5	10.0	25.0	5.0	11.0	20.0	n/a	12.0	22.0	7.0	10.0	21.0	6.0	11.0	21.0
03/18/09	2.5	9.0	25.0	5.0	9.0	20.0	n/a	8.0	22.0	7.0	9.0	21.0	6.0	9.0	21.0
04/21/09	3.0	10.0	25.0	5.0	9.0	20.0	n/a	10.0	22.0	7.0	9.0	21.0	6.0	9.0	21.0
05/19/09	3.0	9.0	25.0	6.0	11.0	20.0	n/a	9.0	22.0	8.0	9.0	21.0	6.0	9.0	21.0
08/31/09	-	-	25.0	-	-	20.0	n/a	-	22.0	-	-	21.0	-	-	21.0
10/02/09	OFF	OFF	25.0	7.0	13.0	20.0	n/a	12.5	22.0	OFF	OFF	21.0	10.0	13.5	21.0

NOTES:

in-Hg = inches of mercury (gauge pressure)

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

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

TABLE 9: WELLHEAD VACUUM & DROP TUBE DEPTH DATA SUMMARY

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

Date	MW-10			MW-11			MW-12								
	Casing Vacuum (in-Hg)	Stinger Vacuum (in-Hg)	Stinger Depth (ft toc)	Casing Vacuum (in-Hg)	Stinger Vacuum (in-Hg)	Stinger Depth (ft toc)	Casing Vacuum (in-Hg)	Stinger Vacuum (in-Hg)	Stinger Depth (ft toc)	Casing Vacuum (in-Hg)	Stinger Vacuum (in-Hg)	Stinger Depth (ft toc)	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						
01/06/09	n/a	10.0	22.0	n/a	11.0	22.0	n/a	11.0	22.0						
02/09/09	n/a	10.0	22.0	n/a	11.0	22.0	n/a	12.0	22.0						
3/18/09`	n/a	9.0	22.0	n/a	9.0	22.0	n/a	9.0	22.0						
04/21/09	n/a	10.0	22.0	n/a	9.0	22.0	n/a	10.0	22.0						
05/19/09	n/a	9.0	22.0	n/a	10.0	22.0	n/a	10.0	22.0						
08/31/09	n/a	-	22.0	n/a	-	22.0	n/a	-	22.0						
10/02/09	n/a	13.5	22.0	n/a	10.0	22.0	OFF	OFF	22.0						

NOTES:

in-Hg = inches of mercury (gauge pressure)

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

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

TABLE 10: 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)
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	1,176	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	1,488	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
01/06/09		35	840	8,298	25	601	72%	60	11	1,200	59	1,200	28	26,425	4,404
02/09/09		34	816	8,300	0.1	2	0%	60	12	1,200	59	1,200	28	26,427	4,405
03/18/09		37	888	8,320	0.8	20	2%	60	10	1,400	69	130	4	26,430	4,405
04/21/09		34	816	8,975	27.3	655	80%	60	11	1,400	69	58	2	26,474	4,412
05/19/09		28	672	9,001	1.1	26	4%	60	10	1,250	61	190	5	26,479	4,413
08/31/09		104	2,496	9,149	6.1	148	6%	60	12	1,400	69	870	24	26,626	4,438
09/10/09		10	240	9,260	4.6	111	46%	60	15	1,500	74	1,700	50	26,859	4,476
09/17/09		7	168	9,411	6.3	151	90%	60	14	1,300	64	2,600	67	27,277	4,546
09/25/09		8	192	9,602	8	192	100%	60	13	2,000	98	2,700	106	28,126	4,688
10/02/09		7	168	9,771	7	169	100%	60	14	1,100	54	2,400	52	28,491	4,749
AVG	-	-	-	-	-	-	68%	60	14	1,460	72	2,054	60	-	-

TABLE 10: 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)
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NOTES:

ppmv = parts per million by volume

TPH-g = total petroleum hydrocarbons as gasoline

TPH-g by EPA Method 8015C

in-Hg = inches of mercury (gauge pressure)

hrs = hours

- not analyzed/applicable

fpm = feet per minute

scfm = standard cubic feet per minute

Flow = Velocity x Cross Sectional Area of the Pipe

Cross Sectional Area of 3" Pipe = 0.0491 ft²

Well Flow = Well Velocity * 0.0491

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*10⁻⁶)*(50scfm)*(1440min/day)*(28.32L/ft³)*(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

MW_{gas} = 100 grams/mole (weathered gasoline)

1 day = 1440 minutes

1ft³ = 28.38 liters

1 lb = 454 grams

1 gallon gas ~ 6 pounds

AVG = average values in red for the current reporting period

TABLE 11: 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	2,3	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		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	5	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	6,7	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		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	8,9	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		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	10	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	-	-	-	-	-		
01/06/09	35	840	8,298	25	601	72%	704	817	3,100	152	-	26	-	-	-	-	-		
02/09/09	34	816	8,300	0.1	2	0%	701	819	3,100	152	-	3.5	-	-	-	-	-		
03/18/09	37	888	8,320	0.8	20	2%	706	780	3,000	147	-	3.5	-	-	-	-	-		
04/21/09	34	816	8,975	27	655	80%	704	760	2,600	128	-	3.5	-	-	-	-	-		
05/19/09	28	672	9,001	1.1	26	4%	705	797	2,800	137	-	3.5	-	-	-	-	-		
08/31/09		104	2496	9,149	6.1	148	6%	702	832	3,100	152	-	3.5	-	-	-	-		
09/10/09		10	240	9,260	4.6	111	46%	705	805	3,100	152	-	-	-	-	-	-		
09/17/09		7	168	9,411	6.3	151	90%	707	807	2,500	123	-	-	-	-	-	-		
09/25/09		8	192	9,602	8.0	192	100%	706	825	3,200	157	-	-	-	-	-	-		
10/02/09		7	168	9,771	7.0	169	100%	706	777	2,800	137	-	3.5	-	-	-	-		
AVG	-	-	-	-	-	-	68%	705	809	2,940	144	-	3.5	-	-	-	-	-	

TABLE 11: 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)
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NOTES:

ppmv = parts per million by volume
 TPH-g = total petroleum 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 ft²
 Total Flow = Total Velocity * 0.0491
 POSTD = TPH-g influent concentration (after dilution)

DL = detection limit
 1/2 the DL was used for abatement efficiency calculations
 DL for TPH-g by EPA Method 8015C = 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) Sampling POSTD was discontinued starting in the Third Quarter, 2008 monitoring and reporting period |
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MASS REMOVAL RATE (MRR) ESTIMATE ASSUMPTIONS:

MRR Estimate = (20,000*10⁻⁶)*(50scfm)*(1440min/day)*(28.32L/ft³)*(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
 MW_{gas} = 100 grams/mole (weathered gasoline)
 1 day = 1440 minutes

1 ft³ = 28.32 liters
 1 lb = 454 grams
 1 gallon gas ~ 114,100 btu

AVG = average values in red for the current reporting period

TABLE 12: 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 (%)
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	-	-	-	-
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%

TABLE 12: 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 (%)
01/06/09	6	8,298	25	30	17.5	1,200	59	150	7,800	ND<50	99.7%
02/09/09		8,300	0.1	30	17	1,200	59	18	11,000	250	97.7%
03/18/09		8,320	1	30	17.5	1,200	59	ND<7.0	2,000	120	94.0%
04/21/09	7	8,975	27	30	17	1,200	59	ND<7.0	590	ND<50	95.8%
05/19/09		9,001	1	30	17	1,200	59	ND<7.0	1,100	57	94.8%
08/31/09	8	9,148	6	30	17.5	1,200	59	ND<7.0	4,200	ND<50	99.4%
09/10/09		9,260	5	30	17.5	1,200	59	-	-	-	-
09/17/09		9,411	6	30	17	1,200	59	-	-	-	-
09/25/09		9,602	8	30	17	1,200	59	-	-	-	-
10/02/09		9,771	7	30	17	1,200	59	-	-	-	-
AVG		-	-	-	30	17	1,200	59	ND<7.0	4,200	ND<50

NOTES:

Hz = hertz (used to control flow rate)
 in-H2O = inches of water
 scfm = standard cubic feet per minute
 ppmv = parts per million by volume
 µg/L = micrograms per Liter of water

AVG = average values in red for the current reporting period

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

- 6) Third time air stripper effluent was non-detect for TPH-g
- 7) Fourth time air stripper effluent was non-detect for TPH-g
- 8) Fifth time air stripper effluent was non-detect for TPH-g

TABLE 13: 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)
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	-	-	-	-	-	-
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	-	-	-	-	-	-
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	-	-	-	-	-	-
08/17/07	2	445	6.9	25,000	10,530	1,522	63.4	1.06	2	2.5	2.5	<1.0	Y	N	N	-	-	-	-	-	-
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	-	-	-	-	-	-
08/27/07		648	3.9	45,800	9,090	2,311	96	1.60	10	>7	>7	-	Y	Y	Y	-	-	-	-	-	-
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	-	-	-	-	-	-
09/05/07		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	-	-	-	-	-	-
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	-	-	-	-	-	-
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	-	-	-	-	-	-
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	-	-	-	-	-	-
11/16/07		1,874	2.7	259,600	15,240	5,566	232	3.87	17	17.5	18	OFFLINE	N	N	N	-	-	-	-	-	-
11/20/07	5	1,969	3.9	279,190	19,590	4,983	208	3.46	19	19.5	20	OFFLINE	N	N	N	-	-	-	-	-	-
11/21/07		1,993	1.0	287,450	8,260	8,260	344	5.74	19	19.5	20	OFFLINE	N	N	N	-	-	-	-	-	-
11/27/07		2,107	4.7	320,320	32,870	6,921	288	4.81	20.5	21.5	21.5	OFFLINE	Y	N	N	-	-	-	-	-	-
11/29/07		2,131	1.0	328,040	7,720	7,504	313	5.21	18 / 4.5	18.5 / 5.5	19 / 6.0	OFFLINE	Y	Y	N	-	-	-	-	-	-
12/04/07		2,230	4.1	355,820	27,780	6,763	282	4.70	17 / 7	17.5 / 7.5	17.5 / 7.5	OFFLINE	Y	Y	N	-	-	-	-	-	-
12/12/07		2,366	5.7	391,500	35,680	6,296	262	4.37	20 / 5	10 / 4.5	10 / 4.5	OFFLINE	Y	Y	N	65,000	25	99.96%	3.4067	92.55	15.42
12/14/07		2,379	0.6	395,260	3,760	6,670	278	4.63	11	4.0	4.5	OFFLINE	N	N	N	-	-	-	-	-	-
12/26/07		2,545	6.9	440,900	45,640	6,603	275	4.59	13	13.5	14	OFFLINE	N	N	N	-	-	-	-	-	-

TABLE 13: 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	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	27	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	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	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	29	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	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	1,181,610	69,840	4,305	179	2.99	22	22.5	22.5	OFFLINE	OFFLINE	N	N	9,400	25	99.73%	0.3360	127.45	21.24
12/02/08		7,697	26	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
01/06/09		8,298	25	1,381,550	100,480	4,013	167	2.79	>30	>30	>30	OFFLINE	OFFLINE	N	N	7,800	25	99.68%	0.2598	140.81	23.47
02/09/09		8,300	0.1	1,381,550	0	0	0	0.00	-	-	-	OFFLINE	OFFLINE	N	N	11,000	25	99.77%	0.0000	140.81	23.47
03/18/09	6	8,320	0.8	1,385,760	4,210	5,002	208	3.47	5	5	5	OFFLINE	OFFLINE	N	N	2,000	25	98.75%	0.0823	140.88	23.48
04/21/09		8,975	27	1,462,030	76,270	2,795	116	1.94	5	5	5	OFFLINE	OFFLINE	N	N	590	25	95.76%	0.0132	141.24	23.54
05/19/09		9,001	1.1	1,465,550	3,520	3,253	136	2.26	5	5	5	OFFLINE	OFFLINE	N	N	1,100	25	97.73%	0.0291	141.27	23.55
08/31/09		9,149	6.1	1,510,210	44,660	7,262	303	5.04	8	8	8	OFFLINE	OFFLINE	N	N	4,200	25	99.40%	0.2525	142.82	23.80
09/10/09	7	9,260	4.6	1,520,040	9,830	2,125	89	1.48	-	-	-	OFFLINE	OFFLINE	N	N	-	-	-	-	-	-
09/17/09		9,411	6.3	1,520,040	0	0	0	0.00	-	-	-	OFFLINE	OFFLINE	N	N	-	-	-	-	-	-
09/25/09		9,602	8.0	1,520,090	50	6	0	0.00	-	-	-	OFFLINE	OFFLINE	N	N	-	-	-	-	-	-
10/02/09	8,9	9,771	7.0	1,520,090	0	0	0	0.00	9	9	9	OFFLINE	OFFLINE	N	N	-	-	-	-	-	-
AVG	-	-	-	-	-	7,262	303	5.04	-	-	-	-	-	-	-	4,200	25	99.40%	0.2525	-	-

NOTES:

gpd = gallons per day
 gph = gallons per hour
 gpm = gallons per minute
 psig = pounds per square inch
 µg/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 operational changes during this reporting period

Mass Removal Rate (lbs/day) = (1 gal/min)*(1,000µg/L - 25µg/L)*(3.785L/gallon)*(1440/min/day)*(2.2lbs/10⁶µg)
 Total Mass Removed (lbs) = (1 gallon)*(1,000µg/L - 25µg/L)*(3.785L/gallon)*(2.2lbs/10⁶µg)
 1 gallon of gas = ~ 6 pounds
 1/2 the DL was used for removal efficiency and mass removal calculations
 DL for TPH-g by modified EPA Method 8015C = 50 µg/L
AVG = average values in red for the current reporting period

*Bag filter inlet and outlet pressures are recorded before and after the bag filter is changed using the following convention: (pressure before / pressure after)
 **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 discharge to sanitary sewer
- Bag filter (LCOS) pre-filter for sediment removal installed and started up on 08/17/07
- 1,000-pound (PV-1000) carbon absorber (up to 75 psig) installed on 10/5/07 and started up on 10/9/07
- 200-pound (ASC-200) carbon absorber (i.e., C-2) taken offline permanently on 10/25/07
- Extraction wells MW-10, MW-11, and MW-12 brought online 11/20/07
- On February 27, 2009, the carbon in the PV1000 carbon absorber was changed out by Siemens Water Technologies
- The "gallons pumped / treated" and the "average flow rates" should have been much higher; flow totalizer could be broken
- Confirmed that the Neptune (Model T-10) cold water flow totalizer was broken; flow totalizer will be replaced during the next O&M visit
- Neptune (Model T-10) cold water flow totalizer was not working properly between 08/31/09 and 10/02/09.
-

TABLE 14: 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
MW-2S	Sample Port at DPE Manifold	M	M	M	M	M	M
MW-5S	Sample Port at DPE Manifold	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	Stripper 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 needed

SP = 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 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



AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-1

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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)	17.09		
Depth to Free Product (from top of casing)	Not detected		
Water Elevation (feet above msl)	15.46		
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)	21.3		
Actual Volume Purged (gallons)	22.0		
Appearance of Purge Water	Initially brown, clears quickly		
Free Product Present?		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
7:15	1	18.84	876	0.45	6.41	-145.1	Clear
	2	18.86	885	0.38	6.37	-153.9	""
	3	18.85	886	0.35	6.39	-159.3	""
	4	18.84	892	0.37	6.41	-168.6	""
	5	18.84	843	0.42	6.43	-163.2	""
	6	18.84	814	0.52	6.49	-161.1	""
7:46	10	18.88	683	0.81	6.48	-140.8	""
	14	18.88	598	1.11	6.33	-106.8	""
	18	18.86	619	1.25	6.31	-102.7	""
	22	18.87	532	1.38	6.23	-93.3	""

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

Moderate hydrocarbon and fetid odors noted.
Well dry after 10 gallons, recharge at 7:30.
Well dry after 18 gallons.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-2

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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)	18.02
Water Elevation (feet above msl)	15.22
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)	4.8
Actual Volume Purged (gallons)	6.0
Appearance of Purge Water	Initially dark brown, clears quickly
Free Product Present?	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
8:33	1	18.24	818	0.57	6.11	-79.9	Clear
	2	18.29	722	0.39	6.11	-71.8	""
	3	18.32	662	0.32	6.09	-62.1	""
	4	18.35	621	0.33	6.06	-51.3	""
	5	18.35	607	0.47	6.05	-47.2	""
8:38	6	18.36	601	0.38	6.05	-45.5	.

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

Strong hydrocarbon odors noted.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-3

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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	
Elevation of Top of Casing (feet above msl)	34.25
Depth of Well	25.00
Depth to Water (from top of casing)	19.24
Water Elevation (feet above msl)	15.01
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)	11.2
Actual Volume Purged (gallons)	12.0
Appearance of Purge Water	Initially brown, clears quickly
Free Product Present?	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
6:37	1	19.08	452	1.26	5.90	6.0	Clear
	2	19.18	438	1.15	5.96	-7.8	""
	3	19.23	406	1.44	6.01	-17.4	""
	4	19.28	384	1.52	6.05	-29.7	""
	5	19.29	385	1.42	6.07	-36.9	""
	6	19.31	397	1.17	6.11	-59.9	""
	8	19.29	433	1.01	6.14	-76.5	""
	6:46	10	19.27	459	0.89	6.14	-70.4
12		19.26	454	0.95	6.13	-65.3	""

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

No hydrocarbon odors noted.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-4

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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)	19.70		
Water Elevation (feet above msl)	14.72		
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)	10.3		
Actual Volume Purged (gallons)	11.0		
Appearance of Purge Water	Clear		
Free Product Present?		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
10:10	1	17.39	280	8.86	6.05	55.9	Clear
	2	17.44	277	7.73	5.83	81.1	""
	3	17.45	273	7.71	5.81	82.9	""
	4	17.47	269	7.45	5.79	86.1	""
	5	17.46	270	7.41	5.79	86.4	""
	6	17.47	276	7.37	5.78	87.1	""
	7	17.47	279	7.41	5.79	86.8	""
	8	17.47	281	7.41	5.81	86.1	""
	9	17.48	280	7.38	5.81	86.3	""
10:20	11	17.48	277	7.19	5.85	83.4	""

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

No hydrocarbon odors noted.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-5

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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)	33.33		
Depth of Well	22.00		
Depth to Water (from top of casing)	17.66		
Water Elevation (feet above msl)	15.67		
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)	8.5		
Actual Volume Purged (gallons)	9.0		
Appearance of Purge Water	Initially dark brown, clears before 1 gallon		
Free Product Present?		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
6:51	1	18.89	954	0.71	6.28	-166.2	Clear
	2	18.98	935	0.52	6.31	-168.8	""
	3	19.03	886	0.42	6.33	-166.1	""
	4	19.03	760	0.48	6.36	-157.6	""
	5	19.03	759	0.48	6.38	-157.3	""
	6	19.11	742	2.05	6.22	-117.2	""
	7	19.10	681	1.25	6.25	-116.7	""
	8	19.05	671	1.14	6.26	-116.9	""
	9	19.03	679	1.08	6.27	-117.4	""

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

Strong hydrocarbon odors noted.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-6

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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)	32.82		
Depth of Well	22.00		
Depth to Water (from top of casing)	16.70		
Depth to Free Product (from top of casing)	Not detected		
Water Elevation (feet above msl)	16.12		
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)	10.3		
Actual Volume Purged (gallons)	11.0		
Appearance of Purge Water	Initially light brown, clears after 1 gallon		
Free Product Present?		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
7:58	1	18.46	456	0.82	6.02	-81.8	Light brown
	2	18.63	448	0.48	5.96	-80.5	Clear
	3	18.66	433	0.51	5.96	-79.3	""
	4	18.66	416	0.51	5.97	-77.4	""
	5	18.66	399	0.51	5.98	-75.0	""
	6	18.62	395	0.48	6.08	-80.2	""
	7	18.62	396	0.40	6.13	-84.8	""
	8	18.66	405	0.52	5.92	-59.0	""
	9	18.65	398	0.42	5.93	-58.2	""
	11	18.65	404	0.47	6.04	-66.2	""

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

Strong hydrocarbon and fetid odors noted.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-7

Project Name:	Vic's Automotive	Date of Sampling:	8/10/2009
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)	17.39		
Depth to Free Product (from top of casing)	Not detected		
Water Elevation (feet above msl)	15.68		
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)	9.0		
Actual Volume Purged (gallons)	9.0		
Appearance of Purge Water	Initially light brown, clears quickly		
Free Product Present?		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
8:42	1	18.39	743	0.67	5.91	-86.1	Clear
	2	18.42	769	0.46	5.95	-92.4	""
	3	18.43	807	0.39	6.09	-105.9	""
	4	18.42	808	0.38	6.13	-108.5	""
	5	18.39	807	0.38	6.15	-110.2	""
	6	18.41	807	0.37	6.17	-111.8	""
	7	18.53	741	0.53	6.06	-99.1	""
	8	18.52	755	0.52	6.07	-100.4	""
	9	18.52	751	0.53	6.09	-101.8	""

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

Moderate hydrocarbon odors noted.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-8

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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)	33.00		
Depth of Well	22.00		
Depth to Water (from top of casing)	17.05		
Depth to Free Product (from top of casing)	Not detected		
Water Elevation (feet above msl)	15.95		
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)	9.6		
Actual Volume Purged (gallons)	10.0		
Appearance of Purge Water	Initially light brown, clears after 2 gallons. Light brown at 9 gallons, clear after 9 gallons.		
Free Product Present?		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
9:30	1	18.12	152	1.69	6.40	-3.4	Light brown
	2	18.22	148	1.41	6.20	21.9	Light brown
	3	18.25	142	1.15	6.08	12.2	Clear
	4	18.27	141	0.82	6.00	-1.9	""
	5	18.29	139	0.68	5.98	-14.8	""
	6	18.29	139	0.63	5.99	-20.7	""
	7	18.30	140	0.61	6.03	-32.8	""
	8	18.3	140	1.65	6.33	-38.1	""
	9	18.37	135	1.67	6.07	-11.9	Light brown
	10	18.33	134	1.01	6.21	-4.7	Clear

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

No hydrocarbon odors noted.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-9

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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)	15.41		
Depth to Free Product (from top of casing)	Not detected		
Water Elevation (feet above msl)	16.59		
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)	3.5		
Actual Volume Purged (gallons)	5.0		
Appearance of Purge Water	Initially light green, clears after 1 gallon		
Free Product Present?		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
11:25	1	19.62	412	0.57	6.23	-60.7	Light green
	2	19.76	429	0.35	6.21	-67.6	Clear
	3	19.69	450	0.32	6.21	-69.2	""
	4	19.61	475	0.35	6.21	-71.3	""
	5	19.55	518	0.45	6.19	-73.1	""

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

Strong hydrocarbon odors noted.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-10

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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)			
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 Samples/Container Size				---			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments

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

Plumbed to HVDPE system from beneath building slab as of August 2008 / Well not used for groundwater monitoring.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-11

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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)			
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 Samples/Container Size				---			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments

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

Plumbed to HVDPE system from beaneath building slab as of August 2008 / Well not used for groundwater monitoring.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-12

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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)	32.02		
Depth of Well	22.00		
Depth to Water (from top of casing)			
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 Samples/Container Size				---			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments

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

Plumbed to HVDPE system from beaneath building slab as of August 2008 / Well not used for groundwater monitoring.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-13

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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	22.00		
Depth to Water (from top of casing)	15.11		
Water Elevation (feet above msl)	16.89		
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)	3.3		
Actual Volume Purged (gallons)	6.0		
Appearance of Purge Water	Clear		
Free Product Present?		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
11:00	1	19.51	398	3.50	6.34	36.9	Clear
	2	19.66	408	3.33	6.19	49.4	""
	3	19.54	416	3.64	6.13	55.6	""
	4	19.41	417	3.09	6.12	55.3	""
	5	19.31	395	1.41	6.13	51.7	""
11:07	6	19.27	374	1.11	6.13	50.4	""

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

No hydrocarbon odors noted.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-14

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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	22.00		
Depth to Water (from top of casing)	15.66		
Water Elevation (feet above msl)	16.34		
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)	3.1		
Actual Volume Purged (gallons)	4.0		
Appearance of Purge Water	Initially light green, light brown after 2 gallons		
Free Product Present?		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
10:45	1	18.81	424	1.18	6.22	-28.0	Light green
	2	18.82	406	0.84	6.21	-22.0	light brown
	3	18.80	370	0.61	6.19	-8.6	""
10:49	4	18.78	380	0.52	6.20	-23.5	""

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

Slight hydrocarbon odors noted.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-15

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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	22.00		
Depth to Water (from top of casing)	16.03		
Water Elevation (feet above msl)	15.97		
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)	2.9		
Actual Volume Purged (gallons)	5.0		
Appearance of Purge Water	Light brown		
Free Product Present?		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
11:48	1	19.42	725	2.40	6.65	-17.3	Light brown
	2	19.49	752	0.78	6.64	-10.6	""
	3	19.44	724	0.44	6.60	-5.1	""
11:54	4	19.37	695	0.36	6.51	4.4	""
	5	19.36	692	0.35	6.47	7.6	""

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

No hydrocarbon odors noted.

AEI CONSULTANTS
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-16

Project Name:	Vic's Automotive	Date of Sampling:	8/21/2009
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	22.00		
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)	3.1		
Actual Volume Purged (gallons)	4.0		
Appearance of Purge Water	Light brown		
Free Product Present?		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
12:20	1	19.47	1045	0.83	6.54	-4.9	Light brown
	2	19.70	1050	0.44	6.51	-6.4	""
	3	20.11	1054	3.23	6.72	-44.2	""
12:40	4	20.07	1058	1.87	6.63	-40.5	""

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

Slight hydrocarbon and fetid odors noted.

APPENDIX B

SOIL GAS FIELD SAMPLING FORMS

NO SOIL GAS FIELD FORMS

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

APPENDIX C

LABORATORY ANALYTICAL REPORTS W/ CHAIN OF CUSTODY DOCUMENTATION



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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 07/27/09-07/28/09
	Client Contact: Ricky Bradford	Date Received: 07/28/09
	Client P.O.: #WC081843	Date Reported: 08/04/09
		Date Completed: 07/30/09

WorkOrder: 0907727

August 04, 2009

Dear Ricky:

Enclosed within are:

- 1) The results of the **6** 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0907727

ClientCode: AEL

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to: Ricky Bradford AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597 (925) 283-6000 FAX (925) 944-2895	Email: rbradford@aeiconsultants.com cc: PO: #WC081843 ProjectNo: #116907; Vic's Automotive	Bill to: Denise Mockel AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597 dmockel@aeiconsultants.com	Requested TAT: 5 days Date Received: 07/28/2009 Date Printed: 07/28/2009
----------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0907727-003	MW-15-16'	Soil	7/27/2009 8:20	<input type="checkbox"/>	A	A											
0907727-005	MW-15-24'	Soil	7/27/2009 9:00	<input type="checkbox"/>	A												
0907727-008	MW-16-16'	Soil	7/27/2009 9:50	<input type="checkbox"/>	A												
0907727-010	MW-16-25'	Soil	7/27/2009 10:30	<input type="checkbox"/>	A												
0907727-013	MW-14-16'	Soil	7/28/2009 7:50	<input type="checkbox"/>	A												
0907727-016	MW-14-23'	Soil	7/28/2009 8:00	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTX_S	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **7/28/2009 4:33:35 PM**

Project Name: **#116907; Vic's Automotive**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **0907727** Matrix Soil

Carrier: Client Drop-In

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
 - Container/Temp Blank temperature Cooler Temp: 6.4°C NA
 - Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 - Sample labels checked for correct preservation? Yes No
 - TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 - Samples Received on Ice? Yes No
- (Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 07/27/09-07/28/09
	Client Contact: Ricky Bradford	Date Received: 07/28/09
	Client P.O.: #WC081843	Date Extracted: 07/28/09
		Date Analyzed: 07/29/09-07/31/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0907727

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
003A	MW-15-16'	S	ND	ND	ND	ND	ND	ND	1	93	
005A	MW-15-24'	S	ND	ND	ND	ND	ND	ND	1	88	
008A	MW-16-16'	S	ND	ND	ND	ND	ND	ND	1	82	
010A	MW-16-25'	S	ND	0.24	ND	ND	ND	ND	1	90	
013A	MW-14-16'	S	ND	ND	ND	ND	ND	ND	1	90	
016A	MW-14-23'	S	ND	ND	ND	ND	ND	ND	1	79	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

* 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 and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

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



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 44814

WorkOrder 0907727

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0907727-003A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) ^f	ND<8.0	0.60	104	108	4.45	108	101	6.11	70 - 130	20	70 - 130	20
MTBE	ND<1.0	0.10	114	113	1.61	106	105	0.872	70 - 130	20	70 - 130	20
Benzene	ND<0.10	0.10	94	92	2.19	82	83	1.21	70 - 130	20	70 - 130	20
Toluene	ND<0.10	0.10	93.2	95.8	2.82	82.7	81.9	0.941	70 - 130	20	70 - 130	20
Ethylbenzene	ND<0.10	0.10	92.9	90.7	2.38	81.7	81.3	0.494	70 - 130	20	70 - 130	20
Xylenes	ND<0.10	0.30	93.9	92	1.99	82.9	81.7	1.42	70 - 130	20	70 - 130	20
%SS:	90	0.10	101	100	1.18	88	80	9.62	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 44814 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0907727-003A	07/27/09 8:20 AM	07/28/09	07/29/09 11:37 PM	0907727-005A	07/27/09 9:00 AM	07/28/09	07/30/09 12:11 AM
0907727-008A	07/27/09 9:50 AM	07/28/09	07/30/09 12:44 AM	0907727-010A	07/27/09 10:30 AM	07/28/09	07/31/09 1:55 PM
0907727-013A	07/28/09 7:50 AM	07/28/09	07/30/09 1:51 AM	0907727-016A	07/28/09 8:00 AM	07/28/09	07/30/09 2:58 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 / %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.



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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Auto (Q3,2009)	Date Sampled: 08/21/09
	Client Contact: Ricky Bradford	Date Received: 08/21/09
	Client P.O.:	Date Reported: 08/27/09
		Date Completed: 08/27/09

WorkOrder: 0908546

August 27, 2009

Dear Ricky:

Enclosed within are:

- 1) The results of the **13** analyzed samples from your project: **#116907; Vic's Auto (Q3,2009)**,
- 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

0908546

page 1 of 2

McCAMPBELL ANALYTICAL INC.
 1538 Willow Pass Road, Pittsburg, CA 94565
 Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD
TURN AROUND TIME RUSH 24 HR 48 HR 72 HR 5 DAY
 EDF Required? Yes No PDF Required? Yes No

Report To: **Ricky Bradford** Bill To: **AEI Consultants**
 Company: **AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597**
 P.O. # **WC081852**
 E-Mail: **rbradford@aeiconsultatns.com**
 Telephone: (925) 944-2899, ext. 148 Fax: (925) 944-2895
 Project No: **116907** Project Name: **Vic's Auto (Q3, 2009)**
 Project Location: **245 8th Street, Oakland, CA 94607**
 Sampler Signature: *[Signature]*

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments	
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other				TPH-g & MBTEX (SW8015C/8021B)
MW-1	MW-1	8/2/09	0900	3	VOA	X					X	X						DPE Well
MW-2	MW-2		1140	3	VOA	X					X	X						DPE Well
MW-3	MW-3		730	3	VOA	X					X	X						
MW-4	MW-4		1220	3	VOA	X					X	X						
MW-5	MW-5		800	3	VOA	X					X	X						DPE Well
MW-6	MW-6		940	3	VOA	X					X	X						DPE Well
MW-7	MW-7		1100	3	VOA	X					X	X						DPE Well
MW-8	MW-8		1020	3	VOA	X					X	X						
MW-9	MW-9		1315	3	VOA	X					X	X						
MW-10	MW-10			3	VOA	X					X	X						Not Sampled
MW-11	MW-11			3	VOA	X					X	X						Not Sampled
MW-12	MW-12			3	VOA	X					X	X						Not Sampled
MW-13	MW-13		1330	3	VOA	X					X	X						

+++++

Relinquished By: *[Signature]* Date: 8/2/09 Time: 5:20 Received By: *[Signature]* 8/2/09 5:20pm
 Relinquished By: Date: Time: Received By:
 Relinquished By: Date: Time: Received By:

ICE/t° 9.2ye s PRESERVATION APPROPRIATE CONTAINERS ✓
 GOOD CONDITION ✓ HEAD SPACE ABSENT ✓ DECHLORINATED IN LAB MP PERSERVED IN LAB MP
 VOAS O&G METALS OTHER

0908546

page 2 of 2

McCAMPBELL ANALYTICAL INC.
 1538 Willow Pass Road, Pittsburg, CA 94565
 Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD
 TURN AROUND TIME 24 HR 48 HR 72 HR 5 DAY
 EDF Required? Yes No PDF Required? Yes No

Report To: Ricky Bradford Bill To: AEI Consultants
 Company: AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597
 P.O. # WC081852
 E-Mail: rbradford@aeiconsultatns.com
 Telephone: (925) 944-2899, ext. 148 Fax: (925) 944-2895
 Project No: 116907 Project Name: Vic's Auto (Q3, 2009)
 Project Location: 245 8th Street, Oakland, CA 94607
 Sampler Signature: *[Signature]*

Analysis Request										Other	Comments
TPH-g & MBTEX (SW8015C/8021B) TPH-d (SW8015C)										MTBE Only (SW8260B)	

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other				
MW-14	MW-14	8/21/09	1300	3	VOA	X					X	X						
MW-15	MW-15	I	1345	3	VOA	X					X	X						
MW-16	MW-16	I	1400	3	VOA	X					X	X						

Relinquished By: *[Signature]* Date: 8/21/09 Time: 5:20 Received By: *[Signature]* 8/21/09 5:20pm
 Relinquished By: Date: Time: Received By:
 Relinquished By: Date: Time: Received By:

ICE/9.2yes PRESERVATION VOAS O&G METALS OTHER
 GOOD CONDITION APPROPRIATE
 HEAD SPACE ABSENT CONTAINERS
 DECHLORINATED IN LAB *[initials]* PERSERVED IN LAB *[initials]*

+
+
+

McC Campbell Analytical, Inc.



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 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0908546

ClientCode: AEL

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:	Ricky Bradford	Email: rbradford@aeiconsultants.com	Bill to:	Denise Mockel	Requested TAT: 5 days
	AEI Consultants	cc:		AEI Consultants	Date Received: 08/21/2009
	2500 Camino Diablo, Ste. #200	PO: #WC081852		2500 Camino Diablo, Ste. #200	Date Printed: 08/21/2009
	Walnut Creek, CA 94597	ProjectNo: #116907; Vic's Auto (Q3,2009)		Walnut Creek, CA 94597	
	(925) 283-6000 FAX (925) 944-2895			dmockel@aeiconsultants.com	

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0908546-001	MW-1	Water	8/21/2009 9:00	<input type="checkbox"/>	A	B	A										
0908546-002	MW-2	Water	8/21/2009 11:40	<input type="checkbox"/>	A												
0908546-003	MW-3	Water	8/21/2009 7:30	<input type="checkbox"/>	A												
0908546-004	MW-4	Water	8/21/2009 12:20	<input type="checkbox"/>	A												
0908546-005	MW-5	Water	8/21/2009 8:10	<input type="checkbox"/>	A												
0908546-006	MW-6	Water	8/21/2009 9:40	<input type="checkbox"/>	A	B											
0908546-007	MW-7	Water	8/21/2009 11:00	<input type="checkbox"/>	A	B											
0908546-008	MW-8	Water	8/21/2009 10:20	<input type="checkbox"/>	A												
0908546-009	MW-9	Water	8/21/2009 13:15	<input type="checkbox"/>	A	B											
0908546-010	MW-13	Water	8/21/2009 13:30	<input type="checkbox"/>	A												
0908546-011	MW-14	Water	8/21/2009 13:00	<input type="checkbox"/>	A												
0908546-012	MW-15	Water	8/21/2009 13:45	<input type="checkbox"/>	A												
0908546-013	MW-16	Water	8/21/2009 14:00	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTX W	2	MTBE W	3	PREF REPORT	4		5	
6		7		8		9		10	
11		12							

Prepared by: Samantha Arbuckle

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **AEI Consultants** Date and Time Received: **8/21/2009 5:49:04 PM**
 Project Name: **#116907; Vic's Auto (Q3,2009)** Checklist completed and reviewed by: **Samantha Arbuckle**
 WorkOrder N°: **0908546** Matrix Water Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 9.2°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No
 (Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted: Date contacted: Contacted by:

Comments:



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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Auto (Q3,2009)	Date Sampled: 08/21/09
	Client Contact: Ricky Bradford	Date Received: 08/21/09
	Client P.O.:	Date Extracted: 08/24/09-08/26/09
		Date Analyzed: 08/24/09-08/26/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0908546

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	63,000	ND<1000	1900	15,000	1200	7600	200	100	d1
002A	MW-2	W	660	ND<10	13	41	13	48	1	108	d1
003A	MW-3	W	ND	ND	ND	ND	ND	ND	1	95	
004A	MW-4	W	390	ND	14	58	11	73	1	102	d1,b1
005A	MW-5	W	11,000	ND<150	450	610	400	2300	10	111	d1
006A	MW-6	W	53,000	ND<1000	1800	8100	1200	12,000	200	91	d1
007A	MW-7	W	28,000	ND<1000	6200	3200	450	3100	100	106	d1
008A	MW-8	W	480	ND	30	100	17	130	1	121	d1
009A	MW-9	W	48,000	ND<3500	15,000	550	2000	3300	20	114	d1
010A	MW-13	W	85	ND	2.0	10	2.2	13	1	104	d1
011A	MW-14	W	3000	ND<17	11	41	92	40	3.3	119	d1
012A	MW-15	W	190	23	23	15	6.6	25	1	101	d1,b1
013A	MW-16	W	860	20	80	110	26	130	1	105	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

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

b1) aqueous sample that contains greater than ~1 vol. % sediment
d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45313

WorkOrder: 0908546

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0908546-003A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	98.2	97.8	0.472	97.4	115	16.2	70 - 130	20	70 - 130	20
MTBE	ND	10	115	122	6.42	120	118	1.61	70 - 130	20	70 - 130	20
Benzene	ND	10	114	118	2.73	112	114	1.74	70 - 130	20	70 - 130	20
Toluene	ND	10	101	105	4.06	99.7	101	1.01	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	101	103	2.16	99.4	101	1.93	70 - 130	20	70 - 130	20
Xylenes	ND	30	114	119	4.10	112	115	2.27	70 - 130	20	70 - 130	20
%SS:	95	10	104	106	1.56	103	102	1.56	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 45313 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0908546-001A	08/21/09 9:00 AM	08/26/09	08/26/09 1:19 AM	0908546-002A	08/21/09 11:40 AM	08/25/09	08/25/09 7:16 PM
0908546-003A	08/21/09 7:30 AM	08/25/09	08/25/09 8:17 PM	0908546-004A	08/21/09 12:20 PM	08/24/09	08/24/09 10:21 PM
0908546-005A	08/21/09 8:10 AM	08/25/09	08/25/09 2:10 AM	0908546-006A	08/21/09 9:40 AM	08/26/09	08/26/09 2:18 AM
0908546-007A	08/21/09 11:00 AM	08/26/09	08/26/09 3:17 AM	0908546-008A	08/21/09 10:20 AM	08/25/09	08/25/09 9:48 PM
0908546-009A	08/21/09 1:15 PM	08/25/09	08/25/09 4:08 AM	0908546-009A	08/21/09 1:15 PM	08/26/09	08/26/09 3:47 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.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45333

WorkOrder: 0908546

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0908578-001A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	107	113	5.98	108	93.8	14.5	70 - 130	20	70 - 130	20
MTBE	ND	10	105	110	4.85	114	120	5.70	70 - 130	20	70 - 130	20
Benzene	ND	10	105	108	2.51	110	113	2.73	70 - 130	20	70 - 130	20
Toluene	ND	10	93.4	94.5	1.19	99.2	99.8	0.584	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	94.5	94.8	0.251	99.5	100	0.464	70 - 130	20	70 - 130	20
Xylenes	ND	30	107	108	1.43	112	112	0	70 - 130	20	70 - 130	20
%SS:	98	10	104	101	2.81	104	102	2.10	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 45333 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0908546-010A	08/21/09 1:30 PM	08/25/09	08/25/09 4:48 AM	0908546-011A	08/21/09 1:00 PM	08/25/09	08/25/09 6:10 PM
0908546-012A	08/21/09 1:45 PM	08/24/09	08/24/09 9:16 PM	0908546-013A	08/21/09 2:00 PM	08/25/09	08/25/09 6:45 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 = 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.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45329

WorkOrder 0908546

EPA Method SW8260B		Extraction SW5030B							Spiked Sample ID: 0908593-030C			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Methyl-t-butyl ether (MTBE)	ND	10	110	106	3.43	111	104	5.89	70 - 130	30	70 - 130	30
%SS1:	93	25	79	78	0.409	78	78	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 45329 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0908546-001B	08/21/09 9:00 AM	08/25/09	08/25/09 4:25 AM	0908546-006B	08/21/09 9:40 AM	08/25/09	08/25/09 5:08 AM
0908546-007B	08/21/09 11:00 AM	08/26/09	08/26/09 3:41 AM	0908546-009B	08/21/09 1:15 PM	08/26/09	08/26/09 4:25 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.

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.



McC Campbell Analytical, Inc.

"When Quality Counts"

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 08/31/09
	Client Contact: Ricky Bradford	Date Received: 08/31/09
	Client P.O.: #WC08	Date Reported: 09/08/09
		Date Completed: 09/08/09

WorkOrder: 0908765

September 08, 2009

Dear Ricky:

Enclosed within are:

- 1) The results of the **3** 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0908765

ClientCode: AEL

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:		Bill to:	Requested TAT: 5 days
Ricky Bradford	Email: rbradford@aeiconsultants.com	Denise Mockel	
AEI Consultants	cc:	AEI Consultants	<i>Date Received: 08/31/2009</i>
2500 Camino Diablo, Ste. #200	PO: #WC08	2500 Camino Diablo, Ste. #200	<i>Date Printed: 08/31/2009</i>
Walnut Creek, CA 94597	ProjectNo: #116907; Vic's Automotive	Walnut Creek, CA 94597	
(925) 283-6000 FAX (925) 944-2895		dmockel@aeiconsultants.com	

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0908765-001	INF	Water	8/31/2009 13:10	<input type="checkbox"/>		A	A									
0908765-002	Post-As	Water	8/31/2009 13:00	<input type="checkbox"/>		A										
0908765-003	EFF	Water	8/31/2009 12:50	<input type="checkbox"/>	B	A										

Test Legend:

1	1664A_SG_W	2	G-MBTEX_W	3	PREFD REPORT	4		5	
6		7		8		9		10	
11		12							

Prepared by: Samantha Arbuckle

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **AEI Consultants** Date and Time Received: **8/31/2009 3:57:25 PM**
 Project Name: **#116907; Vic's Automotive** Checklist completed and reviewed by: **Samantha Arbuckle**
 WorkOrder N°: **0908765** Matrix Water Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 6.2°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted: Date contacted: Contacted by:

Comments:



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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 08/31/09
	Client Contact: Ricky Bradford	Date Received: 08/31/09
	Client P.O.: #WC08	Date Extracted: 08/31/09
		Date Analyzed: 09/01/09

Hexane Extractable Material with Silica Gel Clean Up*

Extraction method E1664A

Analytical methods E1664A

Work Order: 0908765

Lab ID	Client ID	Matrix	HEMSGT	DF	% SS	Comments
0908765-003B	EFF	W	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	5.0	mg/L
	S	NA	NA

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

DF = dilution factor (may be raised to dilute target analyte or matrix interference).

surrogate diluted out of range or not applicable to this sample.



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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 08/31/09
	Client Contact: Ricky Bradford	Date Received: 08/31/09
	Client P.O.: #WC08	Date Extracted: 09/01/09-09/08/09
		Date Analyzed: 09/01/09-09/08/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0908765

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF	W	4200	---	110	230	41	640	20	102	d1
002A	Post-As	W	190	---	5.4	11	2.1	29	1	109	d1
003A	EFF	W	ND	---	ND	ND	ND	ND	1	103	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

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

d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR E1664A

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45418

WorkOrder 0908765

EPA Method E1664A		Extraction E1664A							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
HEMSGT	N/A	20.83	N/A	N/A	N/A	109	107	1.95	N/A	N/A	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 45418 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0908765-003B	08/31/09 12:50 PM	08/31/09	09/01/09 3:25 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 therefore unable to comply with method.

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/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 45489

WorkOrder 0908765

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0908741-004A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	114	116	1.83	120	116	3.37	70 - 130	20	70 - 130	20
MTBE	ND	10	118	116	1.95	117	115	0.991	70 - 130	20	70 - 130	20
Benzene	ND	10	106	104	1.80	107	108	1.46	70 - 130	20	70 - 130	20
Toluene	ND	10	93.5	93.5	0	96	98	2.02	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	94.6	94.4	0.298	97.1	98.3	1.26	70 - 130	20	70 - 130	20
Xylenes	ND	30	107	108	0.722	110	112	1.18	70 - 130	20	70 - 130	20
%SS:	98	10	100	100	0	101	102	0.865	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 45489 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0908765-001A	08/31/09 1:10 PM	09/01/09	09/01/09 9:56 PM	0908765-002A	08/31/09 1:00 PM	09/08/09	09/08/09 2:13 PM
0908765-003A	08/31/09 12:50 PM	09/01/09	09/01/09 7:16 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 = 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.



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 08/31/09
	Client Contact: Ricky Bradford	Date Received: 08/31/09
	Client P.O.: #WC081854	Date Reported: 09/04/09
		Date Completed: 09/04/09

WorkOrder: 0908769

September 04, 2009

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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

0908769

McCAMPBELL ANALYTICAL INC.

1538 Willow Pass Road, Pittsburg, CA 94565

Telephone: (925) 252-9262

Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? Yes No

PDF Required? Yes No

Report To: Ricky Bradford
 Bill To: AEI Consultants
 Company: AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597
 P.O.#WC081854

E-Mail: rbradford@aeiconsultatns.com

Telephone: (925) 746-6000
 Fax: (925) 746-6099
 AEI Project No. 116907
 Project Name: Vic's Automotive
 Project Location: 245 8th Street, Oakland, California 94607

Sampler Signature: *[Signature]*

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other			
MW-1S	MW-1S	8/31/09	1400	1	TB			X									X
MW-2S	MW-2S		1150	1	TB			X									X
MW-5S	MW-5S		1200	1	TB			X									X
MW-6S	MW-6S		1215	1	TB			X									X
MW-7S	MW-7S		1410	1	TB			X									X
MW-10S	MW-10S		1240	1	TB			X									X
MW-11S	MW-11S		1250	1	TB			X									X
MW-12S	MW-12S		1300	1	TB			X									X
POSTD	POSTD																Not Sampled
PRED	PRED		1315	1	TB			X									X
AS	AS		1320	1	TB			X									X
STACK	STACK		1420	1	TB			X									X

Relinquished By: *[Signature]* Date: 8/31/09 Time: 15:05
 Received By: *[Signature]* Date: 8/31/09 Time: 15:05

ICE/TPH as Gas (602/8020 + 8015C)/MTBE
 TPH as Diesel (8015)
 Total Petroleum Oil & Grease (5520 E&F/B&F)
 Total Petroleum Hydrocarbons (418.1)
 EPA 601 / 8010
 BTEX ONLY (EPA 602 / 8020)
 EPA 608 / 8080
 EPA 608 / 8080 PCB's ONLY
 EPA 624 / 8240 / 8260
 EPA 625 / 8270
 PAH's / PNA's by EPA 625 / 8270 / 8310
 CAM-17 Metals
 LUFT 5 Metals
 Lead (7240/7421/239.2/6010)
 RCI
 HVOCS - (8010 target list) by EPA 8260B
 MTBE Only by EPA 8260B

ICE/t/ *[Signature]*
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB PRESERVED IN LAB *[Signature]*

PRESERVATION APPROPRIATE CONTAINERS PRESERVED IN LAB *[Signature]*

VOAS O&G METALS OTHER

*Please report analytical data in both ug/L and ppmv

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0908769

ClientCode: AEL

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:	Ricky Bradford	Email: rbradford@aeiconsultants.com	Bill to:	Denise Mockel	Requested TAT: 5 days
	AEI Consultants	cc:		AEI Consultants	Date Received: 08/31/2009
	2500 Camino Diablo, Ste. #200	PO: #WC081854		2500 Camino Diablo, Ste. #200	Date Printed: 08/31/2009
	Walnut Creek, CA 94597	ProjectNo: #116907; Vic's Automotive		Walnut Creek, CA 94597	
	(925) 283-6000 FAX (925) 944-2895			dmockel@aeiconsultants.com	

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0908769-001	MW-1S	Air	8/31/2009 14:00	<input type="checkbox"/>	A	A											
0908769-002	MW-2S	Air	8/31/2009 11:50	<input type="checkbox"/>	A												
0908769-003	MW-5S	Air	8/31/2009 12:00	<input type="checkbox"/>	A												
0908769-004	MW-6S	Air	8/31/2009 12:15	<input type="checkbox"/>	A												
0908769-005	MW-7S	Air	8/31/2009 14:10	<input type="checkbox"/>	A												
0908769-006	MW-10S	Air	8/31/2009 12:40	<input type="checkbox"/>	A												
0908769-007	MW-11S	Air	8/31/2009 12:50	<input type="checkbox"/>	A												
0908769-008	MW-12S	Air	8/31/2009 13:00	<input type="checkbox"/>	A												
0908769-009	PRED	Air	8/31/2009 13:15	<input type="checkbox"/>	A												
0908769-010	AS	Air	8/31/2009 13:20	<input type="checkbox"/>	A												
0908769-011	STACK	Air	8/31/2009 14:20	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTEX AIR	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A contain testgroup.

Prepared by: Samantha Arbuckle

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **AEI Consultants** Date and Time Received: **8/31/2009 6:01:54 PM**
 Project Name: **#116907; Vic's Automotive** Checklist completed and reviewed by: **Samantha Arbuckle**
 WorkOrder N°: **0908769** Matrix Air Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

* NOTE: If the "No" box is checked, see comments below.

Client contacted: Date contacted: Contacted by:

Comments:



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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 08/31/09
	Client Contact: Ricky Bradford	Date Received: 08/31/09
	Client P.O.: #WC081854	Date Extracted: 09/01/09-09/03/09
		Date Analyzed: 09/01/09-09/03/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0908769

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1S	A	140	ND	1.8	7.8	1.2	12	1	100	d1
002A	MW-2S	A	6400	ND<60	94	220	38	350	4	114	d1
003A	MW-5S	A	4500	ND<45	31	79	13	240	6.7	106	d1
004A	MW-6S	A	1200	ND<10	18	100	16	110	4	106	d1
005A	MW-7S	A	6800	ND<110	170	140	13	280	10	101	d1
006A	MW-10S	A	6100	ND<45	57	83	20	300	4	92	d1
007A	MW-11S	A	3600	ND<160	120	65	16	280	10	98	d1
008A	MW-12S	A	470	ND<10	13	11	2.9	35	1	114	d1
009A	PRED	A	3100	ND<17	37	79	13	130	6.7	110	d1
010A	AS	A	ND	ND	ND	0.37	ND	1.1	1	94	
011A	STACK	A	ND	ND	ND	0.26	ND	1.5	1	94	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25	2.5	0.25	0.25	0.25	0.25	0.25	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

* 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 McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 08/31/09
	Client Contact: Ricky Bradford	Date Received: 08/31/09
	Client P.O.: #WC081854	Date Extracted: 09/01/09-09/03/09
		Date Analyzed: 09/01/09-09/03/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0908769

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1S	A	39	ND	0.54	2.0	0.27	2.8	1	100	d1
002A	MW-2S	A	1800	ND<20	29	57	8.6	79	4	114	d1
003A	MW-5S	A	1300	ND<10	9.6	21	3.0	54	6.7	106	d1
004A	MW-6S	A	330	ND<2.7	5.5	27	3.7	26	4	106	d1
005A	MW-7S	A	1900	ND<30	52	37	3.0	64	10	101	d1
006A	MW-10S	A	1700	ND<10	18	22	4.4	67	4	92	d1
007A	MW-11S	A	1000	ND<20	36	17	3.7	63	10	98	d1
008A	MW-12S	A	130	ND<3.0	3.9	3.0	0.67	8.0	1	114	d1
009A	PRED	A	870	ND<4.5	11	21	3.0	29	6.7	110	d1
010A	AS	A	ND	ND	ND	0.096	ND	0.24	1	94	
011A	STACK	A	ND	ND	ND	0.069	ND	0.35	1	94	

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; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 45489

WorkOrder: 0908769

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0908741-004A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	114	116	1.83	120	116	3.37	70 - 130	20	70 - 130	20
MTBE	ND	10	118	116	1.95	117	115	0.991	70 - 130	20	70 - 130	20
Benzene	ND	10	106	104	1.80	107	108	1.46	70 - 130	20	70 - 130	20
Toluene	ND	10	93.5	93.5	0	96	98	2.02	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	94.6	94.4	0.298	97.1	98.3	1.26	70 - 130	20	70 - 130	20
Xylenes	ND	30	107	108	0.722	110	112	1.18	70 - 130	20	70 - 130	20
%SS:	98	10	100	100	0	101	102	0.865	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 45489 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0908769-001A	08/31/09 2:00 PM	09/01/09	09/01/09 4:55 PM	0908769-001A	08/31/09 2:00 PM	09/01/09	09/01/09 4:55 PM
0908769-002A	08/31/09 11:50 AM	09/01/09	09/01/09 5:25 PM	0908769-002A	08/31/09 11:50 AM	09/01/09	09/01/09 5:25 PM
0908769-003A	08/31/09 12:00 PM	09/02/09	09/02/09 6:21 PM	0908769-003A	08/31/09 12:00 PM	09/02/09	09/02/09 6:21 PM
0908769-004A	08/31/09 12:15 PM	09/01/09	09/01/09 5:55 PM	0908769-004A	08/31/09 12:15 PM	09/01/09	09/01/09 5:55 PM
0908769-005A	08/31/09 2:10 PM	09/01/09	09/01/09 6:55 PM	0908769-005A	08/31/09 2:10 PM	09/01/09	09/01/09 6:55 PM
0908769-006A	08/31/09 12:40 PM	09/01/09	09/01/09 7:25 PM	0908769-006A	08/31/09 12:40 PM	09/01/09	09/01/09 7:25 PM
0908769-007A	08/31/09 12:50 PM	09/02/09	09/02/09 5:19 PM	0908769-007A	08/31/09 12:50 PM	09/02/09	09/02/09 5:19 PM
0908769-008A	08/31/09 1:00 PM	09/02/09	09/02/09 7:52 PM	0908769-008A	08/31/09 1:00 PM	09/02/09	09/02/09 7:52 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 / %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/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 45509

WorkOrder: 0908769

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0908780-001A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) ^f	ND	60	114	120	5.27	113	96.7	15.8	70 - 130	20	70 - 130	20
MTBE	ND	10	110	116	5.74	109	116	6.22	70 - 130	20	70 - 130	20
Benzene	ND	10	106	105	0.843	104	105	1.61	70 - 130	20	70 - 130	20
Toluene	ND	10	96.1	95.8	0.326	94.7	94.3	0.335	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	97.4	94.6	2.86	95.2	95.1	0.107	70 - 130	20	70 - 130	20
Xylenes	ND	30	110	107	2.74	109	108	1.15	70 - 130	20	70 - 130	20
%SS:	98	10	100	99	1.12	101	101	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 45509 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0908769-009A	08/31/09 1:15 PM	09/03/09	09/03/09 1:58 PM	0908769-009A	08/31/09 1:15 PM	09/03/09	09/03/09 1:58 PM
0908769-010A	08/31/09 1:20 PM	09/02/09	09/02/09 6:51 PM	0908769-010A	08/31/09 1:20 PM	09/02/09	09/02/09 6:51 PM
0908769-011A	08/31/09 2:20 PM	09/02/09	09/02/09 7:21 PM	0908769-011A	08/31/09 2:20 PM	09/02/09	09/02/09 7:21 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.



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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 09/10/09
	Client Contact: Ricky Bradford	Date Received: 09/10/09
	Client P.O.: #WC081934	Date Reported: 09/17/09
		Date Completed: 09/11/09

WorkOrder: 0909287

September 17, 2009

Dear Ricky:

Enclosed within are:

- 1) The results of the 6 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909287

ClientCode: AEL

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:		Bill to:	Requested TAT: 5 days
Ricky Bradford	Email: rbradford@aeiconsultants.com	Denise Mockel	
AEI Consultants	cc:	AEI Consultants	Date Received: 09/10/2009
2500 Camino Diablo, Ste. #200	PO: #WC081934	2500 Camino Diablo, Ste. #200	Date Printed: 09/10/2009
Walnut Creek, CA 94597	ProjectNo: #116907; Vic's Automotive	Walnut Creek, CA 94597	
(925) 283-6000 FAX (925) 944-2895		dmockel@aeiconsultants.com	

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0909287-001	MW-2S	Air	9/10/2009 9:50	<input type="checkbox"/>	A												
0909287-002	MW-5S	Air	9/10/2009 10:05	<input type="checkbox"/>	A												
0909287-003	MW-7S	Air	9/10/2009 10:20	<input type="checkbox"/>	A												
0909287-004	MW-10S	Air	9/10/2009 10:35	<input type="checkbox"/>	A												
0909287-005	MW-11S	Air	9/10/2009 10:50	<input type="checkbox"/>	A												
0909287-006	PRED	Air	9/10/2009 11:05	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTEX AIR	2		3		4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A contain testgroup.

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **AEI Consultants** Date and Time Received: **9/10/2009 1:36:14 PM**
Project Name: **#116907; Vic's Automotive** Checklist completed and reviewed by: **Melissa Valles**
WorkOrder N°: **0909287** Matrix Air Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present? Yes No
Chain of custody signed when relinquished and received? Yes No
Chain of custody agrees with sample labels? Yes No
Sample IDs noted by Client on COC? Yes No
Date and Time of collection noted by Client on COC? Yes No
Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
Shipping container/cooler in good condition? Yes No
Samples in proper containers/bottles? Yes No
Sample containers intact? Yes No
Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
Container/Temp Blank temperature Cooler Temp: NA
Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
Sample labels checked for correct preservation? Yes No
TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA
Samples Received on Ice? Yes No

* NOTE: If the "No" box is checked, see comments below.

Client contacted: Date contacted: Contacted by:

Comments:



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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 09/10/09
	Client Contact: Ricky Bradford	Date Received: 09/10/09
	Client P.O.: #WC081934	Date Extracted: 09/10/09-09/11/09
		Date Analyzed: 09/10/09-09/11/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909287

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-2S	A	7200	ND<50	170	390	28	330	10	83	d1
002A	MW-5S	A	6300	ND<25	59	190	18	510	10	89	d1
003A	MW-7S	A	11,000	ND<60	220	270	17	550	6.7	91	d1
004A	MW-10S	A	5700	ND<30	94	240	23	330	4	94	d1
005A	MW-11S	A	3100	ND<90	120	120	25	300	4	108	d1
006A	PRED	A	6000	ND<80	110	240	25	490	4	116	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25	2.5	0.25	0.25	0.25	0.25	0.25	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

* 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 McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 09/10/09
	Client Contact: Ricky Bradford	Date Received: 09/10/09
	Client P.O.: #WC081934	Date Extracted: 09/10/09-09/11/09
		Date Analyzed: 09/10/09-09/11/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909287

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-2S	A	2000	ND<15	52	100	6.4	74	10	83	d1
002A	MW-5S	A	1800	ND<6.8	18	49	4.0	110	10	89	d1
003A	MW-7S	A	3100	ND<20	68	71	3.8	130	6.7	91	d1
004A	MW-10S	A	1600	ND<10	29	63	5.3	75	4	94	d1
005A	MW-11S	A	870	ND<30	38	32	5.7	68	4	108	d1
006A	PRED	A	1700	ND<20	34	62	5.8	110	4	116	d1

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; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 45741

WorkOrder 0909287

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0909265-003A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	101	96.1	4.49	105	107	1.31	70 - 130	20	70 - 130	20
MTBE	ND	10	118	113	4.40	96.6	103	6.28	70 - 130	20	70 - 130	20
Benzene	ND	10	111	107	3.70	96.3	95.3	1.06	70 - 130	20	70 - 130	20
Toluene	ND	10	100	96.8	3.18	96.3	95.6	0.667	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	99.2	96.1	3.09	94.7	95	0.376	70 - 130	20	70 - 130	20
Xylenes	ND	30	113	111	2.20	97.1	97.7	0.612	70 - 130	20	70 - 130	20
%SS:	100	10	100	100	0	98	96	1.11	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 45741 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909287-001A	09/10/09 9:50 AM	09/10/09	09/10/09 9:26 PM	0909287-001A	09/10/09 9:50 AM	09/10/09	09/10/09 9:26 PM
0909287-002A	09/10/09 10:05 AM	09/10/09	09/10/09 9:57 PM	0909287-002A	09/10/09 10:05 AM	09/10/09	09/10/09 9:57 PM
0909287-003A	09/10/09 10:20 AM	09/10/09	09/10/09 11:28 PM	0909287-003A	09/10/09 10:20 AM	09/10/09	09/10/09 11:28 PM
0909287-004A	09/10/09 10:35 AM	09/10/09	09/10/09 11:59 PM	0909287-004A	09/10/09 10:35 AM	09/10/09	09/10/09 11:59 PM
0909287-005A	09/10/09 10:50 AM	09/11/09	09/11/09 12:29 AM	0909287-005A	09/10/09 10:50 AM	09/11/09	09/11/09 12:29 AM
0909287-006A	09/10/09 11:05 AM	09/11/09	09/11/09 1:30 AM	0909287-006A	09/10/09 11:05 AM	09/11/09	09/11/09 1:30 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.



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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 09/17/09
	Client Contact: Ricky Bradford	Date Received: 09/17/09
	Client P.O.: #WC081952	Date Reported: 09/23/09
		Date Completed: 09/18/09

WorkOrder: 0909494

September 23, 2009

Dear Ricky:

Enclosed within are:

- 1) The results of the 9 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

0909494

McCAMPBELL ANALYTICAL INC. 1538 Willow Pass Road, Pittsburg, CA 94565 Telephone: (925) 252-9262 Fax: (925) 252-9269					CHAIN OF CUSTODY RECORD TURN AROUND TIME																		
					<input type="checkbox"/> RUSH <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> 5 DAY					EDF Required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No PDF Required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No													
Report To: Ricky Bradford Bill To: AEI Consultants Company: AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597 P.O.#WC081952 E-Mail: rbradford@aeiconsultatns.com Telephone: (925) 746-6000 Fax: (925) 746-6099 AEI Project No. 116907 Project Name: Vic's Automotive Project Location: 245 8 th Street, Oakland, California 94607 Sampler Signature: <i>John Sigg</i>					Analysis Request					Other					Comments								
SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED				BTEX & TPH as Gas (602/8020 + 8015C)/MTBE TPH as Diesel (8015) Total Petroleum Oil & Grease (5520 E&F/B&F) Total Petroleum Hydrocarbons (418.1) EPA 601 / 8010 BTEX ONLY (EPA 602 / 8020) EPA 608 / 8080 EPA 608 / 8080 PCB's ONLY EPA 624 / 8240 / 8260 EPA 625 / 8270 PAH's / PNA's by EPA 625 / 8270 / 8310 CAM-17 Metals LUFT 5 Metals Lead (7240/7421/239.2/6010) RCI HVOCs - (8010 target list) by EPA 8260B MTBE Only by EPA 8260B	*Please report analytical data in both ug/L and ppmv							
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other									
MW-2S	MW-2S	9-17-09	0800	1	TB			X														X	
MW-5S	MW-5S		0815	1	TB			X															X
MW-7S	MW-7S		0830	1	TB			X															X
MW-10S	MW-10S		0845	1	TB			X															X
MW-11S	MW-11S		0900	1	TB			X															X
PRED	PRED		0915	2	TB			X															X
	MW-1S		0945	1	TB			X															X
	MW-6S		1000	1	TB			X															X
	MW-12S		1015	1	TB			X															X
Relinquished By: <i>John Sigg</i>		Date: 9-17-09	Time: 1:35	Received By: <i>Cheryl P</i>																			
Relinquished By:		Date:	Time:	Received By:		ICE/r° _____ PRESERVATION _____ GOOD CONDITION _____ APPROPRIATE _____ HEAD SPACE ABSENT _____ CONTAINERS _____ DECHLORINATED IN LAB _____ PERSERVED IN LAB _____																	
Relinquished By:		Date:	Time:	Received By:																			

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0909494

ClientCode: AEL

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Ricky Bradford
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
(925) 283-6000 FAX (925) 944-2895

Email: rbradford@aeiconsultants.com
cc:
PO: #WC081952
ProjectNo: #116907; Vic's Automotive

Bill to:

Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

Requested TAT: 5 days

Date Received: 09/17/2009

Date Printed: 09/17/2009

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0909494-001	MW-2S	Air	9/17/2009 8:00	<input type="checkbox"/>	A	A											
0909494-002	MW-5S	Air	9/17/2009 8:15	<input type="checkbox"/>	A												
0909494-003	MW-7S	Air	9/17/2009 8:30	<input type="checkbox"/>	A												
0909494-004	MW-10S	Air	9/17/2009 8:45	<input type="checkbox"/>	A												
0909494-005	MW-11S	Air	9/17/2009 9:00	<input type="checkbox"/>	A												
0909494-006	PRED	Air	9/17/2009 9:15	<input type="checkbox"/>	A												
0909494-007	MW-1S	Air	9/17/2009 9:45	<input type="checkbox"/>	A												
0909494-008	MW-6S	Air	9/17/2009 10:00	<input type="checkbox"/>	A												
0909494-009	MW-12S	Air	9/17/2009 10:15	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTEX AIR	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A contain testgroup.

Prepared by: Ana Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **AEI Consultants** Date and Time Received: **9/17/2009 1:27:06 PM**
 Project Name: **#116907; Vic's Automotive** Checklist completed and reviewed by: **Ana Venegas**
 WorkOrder N°: **0909494** Matrix Air Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

* NOTE: If the "No" box is checked, see comments below.

Client contacted: Date contacted: Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 09/17/09
	Client Contact: Ricky Bradford	Date Received: 09/17/09
	Client P.O.: #WC081952	Date Extracted: 09/17/09
		Date Analyzed: 09/17/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909494

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-2S	A	9700	ND<90	260	550	48	450	10	82	d1
002A	MW-5S	A	8000	ND<25	60	250	29	700	10	112	d1
003A	MW-7S	A	19,000	ND<140	370	550	40	860	10	114	d1
004A	MW-10S	A	6800	ND<60	130	310	32	380	6.7	101	d1
005A	MW-11S	A	3200	ND<90	87	150	18	280	2	89	d1
006A	PRED	A	9100	ND<60	170	400	33	600	4	122	d1
007A	MW-1S	A	180	ND<10	4.3	34	2.6	19	4	95	d1
008A	MW-6S	A	1300	ND<10	6.3	27	6.0	41	1	113	d1
009A	MW-12S	A	86	ND<7.0	5.4	6.8	0.77	8.3	1	107	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25	2.5	0.25	0.25	0.25	0.25	0.25	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

* 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 McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 09/17/09
	Client Contact: Ricky Bradford	Date Received: 09/17/09
	Client P.O.: #WC081952	Date Extracted: 09/17/09
		Date Analyzed: 09/17/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0909494

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-2S	A	2700	ND<25	80	140	11	100	10	82	d1
002A	MW-5S	A	2200	ND<6.8	19	66	6.6	160	10	112	d1
003A	MW-7S	A	5200	ND<35	120	140	9.0	200	10	114	d1
004A	MW-10S	A	1900	ND<15	40	82	7.2	85	6.7	101	d1
005A	MW-11S	A	890	ND<25	27	39	4.1	63	2	89	d1
006A	PRED	A	2600	ND<20	52	100	7.5	140	4	122	d1
007A	MW-1S	A	51	ND<2.7	1.3	8.8	0.59	4.2	4	95	d1
008A	MW-6S	A	370	ND<3.0	1.9	6.9	1.4	9.2	1	113	d1
009A	MW-12S	A	24	ND<2.0	1.7	1.8	0.18	1.9	1	107	d1

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; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 45892

WorkOrder: 0909494

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0909486-007A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) ^f	ND	60	98.9	98.8	0.112	110	99.3	9.76	70 - 130	20	70 - 130	20
MTBE	ND	10	96.8	95.7	1.18	108	106	1.30	70 - 130	20	70 - 130	20
Benzene	ND	10	95.2	95.3	0.0370	102	102	0	70 - 130	20	70 - 130	20
Toluene	ND	10	95.3	95.4	0.182	103	102	0.540	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	93.7	94.7	1.01	101	101	0	70 - 130	20	70 - 130	20
Xylenes	ND	30	100	102	2.12	109	110	0.531	70 - 130	20	70 - 130	20
%SS:	94	10	95	93	1.47	96	94	1.56	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 45892 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0909494-001A	09/17/09 8:00 AM	09/17/09	09/17/09 6:59 PM	0909494-002A	09/17/09 8:15 AM	09/17/09	09/17/09 7:30 PM
0909494-003A	09/17/09 8:30 AM	09/17/09	09/17/09 8:00 PM	0909494-004A	09/17/09 8:45 AM	09/17/09	09/17/09 8:30 PM
0909494-005A	09/17/09 9:00 AM	09/17/09	09/17/09 9:01 PM	0909494-006A	09/17/09 9:15 AM	09/17/09	09/17/09 9:31 PM
0909494-007A	09/17/09 9:45 AM	09/17/09	09/17/09 10:02 PM	0909494-008A	09/17/09 10:00 AM	09/17/09	09/17/09 10:32 PM
0909494-009A	09/17/09 10:15 AM	09/17/09	09/17/09 11:34 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 / %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.



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 10/02/09
	Client Contact: Ricky Bradford	Date Received: 10/02/09
	Client P.O.: #WC081989	Date Reported: 10/07/09
		Date Completed: 10/05/09

WorkOrder: 0910040

October 07, 2009

Dear Ricky:

Enclosed within are:

- 1) The results of the **8** 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0910040

ClientCode: AEL

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:		Bill to:	Requested TAT: 5 days
Ricky Bradford	Email: rbradford@aeiconsultants.com	Denise Mockel	
AEI Consultants	cc:	AEI Consultants	Date Received: 10/02/2009
2500 Camino Diablo, Ste. #200	PO: #WC081989	2500 Camino Diablo, Ste. #200	Date Printed: 10/08/2009
Walnut Creek, CA 94597	ProjectNo: #116907; Vic's Automotive	Walnut Creek, CA 94597	
(925) 283-6000 FAX (925) 944-2895		dmockel@aeiconsultants.com	

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0910040-001	MW-2S	Air	10/2/2009 8:30	<input type="checkbox"/>	A	A											
0910040-002	MW-5S	Air	10/2/2009 8:45	<input type="checkbox"/>	A												
0910040-003	MW-7S	Air	10/2/2009 9:00	<input type="checkbox"/>	A												
0910040-004	MW-10S	Air	10/2/2009 9:15	<input type="checkbox"/>	A												
0910040-005	MW-11S	Air	10/2/2009 9:30	<input type="checkbox"/>	A												
0910040-006	AS	Air	10/2/2009 9:45	<input type="checkbox"/>	A												
0910040-007	PRED	Air	10/2/2009 10:00	<input type="checkbox"/>	A												
0910040-008	STACK	Air	10/2/2009 10:15	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTEX AIR	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A contain testgroup.

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/2/2009 12:42:22 PM**

Project Name: **#116907; Vic's Automotive**

Checklist completed and reviewed by: **Maria Venegas**

WorkOrder N°: **0910040** Matrix Air

Carrier: Client Drop-In

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: NA
- Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
- Sample labels checked for correct preservation? Yes No
- Metal - pH acceptable upon receipt (pH<2)? Yes No NA
- Samples Received on Ice? Yes No

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 10/02/09
	Client Contact: Ricky Bradford	Date Received: 10/02/09
	Client P.O.: #WC081989	Date Extracted: 10/02/09-10/03/09
		Date Analyzed: 10/02/09-10/03/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0910040

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-2S	A	10,000	ND<35	210	510	38	320	6.7	95	d1
002A	MW-5S	A	7500	ND<10	31	140	21	460	4	107	d1
003A	MW-7S	A	19,000	ND<130	330	610	49	900	6.7	80	d1
004A	MW-10S	A	6200	ND<60	120	300	29	330	4	113	d1
005A	MW-11S	A	3200	ND<50	70	150	17	240	4	110	d1
006A	AS	A	26	ND<5.0	0.89	2.2	ND	4.1	1	109	d1
007A	PRED	A	8500	ND<75	140	330	37	500	4	101	d1
008A	STACK	A	ND	ND	ND	ND	ND	ND	1	106	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25	2.5	0.25	0.25	0.25	0.25	0.25	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

* 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 McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



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AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 10/02/09
	Client Contact: Ricky Bradford	Date Received: 10/02/09
	Client P.O.: #WC081989	Date Extracted: 10/02/09-10/03/09
		Date Analyzed: 10/02/09-10/03/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0910040

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-2S	A	2800	ND<10	63	130	8.5	72	6.7	95	d1
002A	MW-5S	A	2100	ND<2.7	9.4	35	4.9	100	4	107	d1
003A	MW-7S	A	5300	ND<35	100	160	11	210	6.7	80	d1
004A	MW-10S	A	1700	ND<20	38	79	6.6	76	4	113	d1
005A	MW-11S	A	880	ND<15	22	40	3.9	55	4	110	d1
006A	AS	A	7.3	ND<1.0	0.27	0.57	ND	0.93	1	109	d1
007A	PRED	A	2400	ND<20	43	85	8.3	110	4	101	d1
008A	STACK	A	ND	ND	ND	ND	ND	ND	1	106	

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; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 46201

WorkOrder: 0910040

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0910034-004A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) ^f	ND	60	118	124	5.20	109	113	4.26	70 - 130	20	70 - 130	20
MTBE	ND	10	124	120	3.12	102	105	2.58	70 - 130	20	70 - 130	20
Benzene	ND	10	115	116	0.669	104	102	1.98	70 - 130	20	70 - 130	20
Toluene	ND	10	102	107	4.96	102	101	1.25	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	102	103	1.25	102	102	0	70 - 130	20	70 - 130	20
Xylenes	ND	30	115	117	1.48	105	105	0	70 - 130	20	70 - 130	20
%SS:	105	10	101	105	4.06	101	96	4.51	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 46201 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910040-001A	10/02/09 8:30 AM	10/02/09	10/02/09 4:09 PM	0910040-001A	10/02/09 8:30 AM	10/02/09	10/02/09 4:09 PM
0910040-002A	10/02/09 8:45 AM	10/02/09	10/02/09 4:39 PM	0910040-002A	10/02/09 8:45 AM	10/02/09	10/02/09 4:39 PM
0910040-003A	10/02/09 9:00 AM	10/02/09	10/02/09 5:15 PM	0910040-003A	10/02/09 9:00 AM	10/02/09	10/02/09 5:15 PM
0910040-004A	10/02/09 9:15 AM	10/03/09	10/03/09 4:24 AM	0910040-004A	10/02/09 9:15 AM	10/03/09	10/03/09 4:24 AM
0910040-005A	10/02/09 9:30 AM	10/02/09	10/02/09 4:42 PM	0910040-005A	10/02/09 9:30 AM	10/02/09	10/02/09 4:42 PM
0910040-006A	10/02/09 9:45 AM	10/02/09	10/02/09 9:11 PM	0910040-006A	10/02/09 9:45 AM	10/02/09	10/02/09 9:11 PM
0910040-007A	10/02/09 10:00 AM	10/02/09	10/02/09 10:19 PM	0910040-007A	10/02/09 10:00 AM	10/02/09	10/02/09 10:19 PM
0910040-008A	10/02/09 10:15 AM	10/02/09	10/02/09 2:26 PM	0910040-008A	10/02/09 10:15 AM	10/02/09	10/02/09 2:26 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.

APPENDIX D

**WELL INSTALLATION, ENCROACHMENT,
& EXCAVATION PERMITS**

Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 07/16/2009 By jamesy

Permit Numbers: W2009-0648 to W2009-0650
Permits Valid from 07/27/2009 to 07/28/2009

Application Id: 1247699353075
Site Location: 245 8th Street
Project Start Date: 07/27/2009
Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

City of Project Site:Oakland

Completion Date:07/28/2009

Applicant: All Environmental, Inc. - Ricky Bradford
2500 Camino Diablo, Walnut Creek, CA 94597

Phone: 925-746-6000 x148

Property Owner: Victor Lum
245 8th Street, Oakland, CA 94607

Phone: --

Client: ** same as Property Owner **
Contact: Ricky Bradford

Phone: 925-746-6000 x148
Cell: 510-375-2314

Receipt Number: WR2009-0259	Total Due:	\$1191.00
Payer Name : Peter J McIntyre	Total Amount Paid:	\$1191.00
	Paid By: VISA	PAID IN FULL

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 3 Wells
Driller: RSI Drilling - Lic #: 802334 - Method: hstem

Work Total: \$1191.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0648	07/16/2009	10/25/2009	MW-14	8.00 in.	2.00 in.	15.00 ft	25.00 ft
W2009-0649	07/16/2009	10/25/2009	MW-15	8.00 in.	2.00 in.	15.00 ft	25.00 ft
W2009-0650	07/16/2009	10/25/2009	MW-16	8.00 in.	2.00 in.	15.00 ft	25.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

Alameda County Public Works Agency - Water Resources Well Permit

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.
 5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
 6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
 7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
 8. Minimum surface seal thickness is two inches of cement grout placed by tremie
 9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
 10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
-

PROGRAMS AND SERVICES

Well Standards Program

The Alameda County Public Works Agency, Water Resources is located at:

399 Elmhurst Street

Hayward, CA 94544

For Driving Directions or General Info, Please Contact 510-670-5480 or wells@acpwa.org

For Drilling Permit information and process contact [James Yoo](mailto:James.Yoo@acpwa.org) at

Phone: 510-670-6633

FAX: 510-782-1939

Email: Jamesy@acpwa.org

Alameda County Public Works is the administering agency of [General Ordinance Code, Chapter 6.88](#) . The purpose of this chapter is to provide for the regulation of groundwater wells and exploratory holes as required by [California Water Code](#). The provisions of these laws are administered and enforced by Alameda County Public Works Agency through its Well Standards Program.

Drilling Permit Jurisdictions in Alameda County: There are four jurisdictions in Alameda County.

Location: Agency with Jurisdiction Contact Number

Berkeley City of Berkeley Ph: 510-981-7460

Fax: 510-540-5672

Fremont, Newark, Union City Alameda County Water District Ph: 510-668-4460

Fax: 510-651-1760

Pleasanton, Dublin, Livermore, Sunol [Zone 7 Water Agency](#) Ph: 925-454-5000

Fax: 510-454-5728

The Alameda County Public Works Agency, Water Resources has the responsibility and authority to issue drilling permits and to enforce the County Water Well Ordinance 73-68. This jurisdiction covers the western Alameda County area of **Oakland, Alameda, Piedmont, Emeryville, Albany, San Leandro, San Lorenzo, Castro Valley, and Hayward** . The purpose of the drilling permits are to ensure that any new well or the destruction of wells, including geotechnical investigations and environmental sampling within the above jurisdiction and within Alameda County will not cause pollution or contamination of ground water or otherwise jeopardize the health, safety or welfare of the people of Alameda County.

Permits are required for all work pertaining to wells and exploratory holes at any depth within the jurisdiction of the Well Standards Program. A completed [permit application \(30 Kb\)*](#) , along with a site map, should be submitted at least **ten (10) working days prior to the planned start of work**. Submittals should be sent to the address or fax number provided on the application form. When submitting an application via fax, please use a high resolution scan to retain legibility.

Fees

Beginning April 11, 2005 , the following fees shall apply:

A permit to construct, rehabilitate, or destroy wells, including cathodic protection wells, but excluding dewatering wells (*Horizontal hillside dewatering and dewatering for construction period only), shall cost \$300.00 per well.

A permit to bore exploratory holes, including temporary test wells, shall cost \$200 per site. A site includes the project parcel as well as any adjoining parcels.

Please make checks payable to: **Treasurer, County of Alameda**

Permit Fees are exempt to State & Federal Projects

Applicants shall submit a letter from the agency requesting the fee exemption.

Scheduling Work/Inspections:

Alameda County Public Works Agency (ACPWA), Water Resources Section requires scheduling and inspection of permitted work. All drilling activities must be scheduled in advance. Availability of inspections will vary from week to week and will come on a first come, first served bases. To ensure inspection availability on your desired or driller scheduled date, the following procedures are required:

Please contact **James Yoo at 510-670-6633** to schedule the inspection date and time (You must have drilling permit approved prior to scheduling).

Schedule the work as far in advance as possible (at least 5 days in advance); and confirm the scheduled drilling date(s) at least 24 hours prior to drilling.

Once the work has been scheduled, an ACPWA Inspector will coordinate the inspection requirements as well as how the Inspector can be reached if they are not at the site when Inspection is required. Expect for special circumstances given, all work will require the inspection to be conducted during the working hours of 8:30am to 2:30pm., Monday to Friday, excluding holidays.

Request for Permit Extension:

Permits are only valid from the start date to the completion date as stated on the drilling permit application and Conditions of Approval. To request an extension of a drilling permit application, applicants must request in writing prior to the completion date as set forth in the Conditions of Approval of the drilling permit application. Please send fax or email to Water Resources Section, Fax 510-782-1939 or email at wells@acpwa.org. There are no additional fees for permit extensions or for re-scheduling inspection dates. You may not extend your drilling permit dates beyond 90 days from the approval date of the permit application. **NO refunds** shall be given back after 90 days and the permit shall be deemed voided.

Cancel a Drilling Permit:

Applicants may cancel a drilling permit only in writing by mail, fax or email to Water Resources Section, Fax 510-782-1939 or email at wells@acpwa.org. If you do not cancel your drilling permit application before the drilling completion date or notify in writing within 90 days, Alameda County Public Works Agency, Water Resources Section may void the permit and No refunds may be given back.

Refunds/Service Charge:

A service charge of \$25.00 dollars for the first check returned and \$35.00 dollars for each subsequent check returned.

Applicants who cancel a drilling permit application **before** we issue the approved permit(s), will receive a **FULL** refund (at any amount) and will be mailed back within two weeks.

Applicants who cancel a drilling permit application **after** a permit has been issued will then be charged a service fee of \$50.00 (fifty Dollars).

To collect the remaining funds will be determined by the amount of the refund to be refunded (see process below).

Board of Supervisors Minute Order, File No. 9763, dated January 9, 1996, gives blanket authority to the Auditor-Controller to process claims, from all County departments for the refund of fees which do not exceed \$500 (Five Hundred Dollars)(with the exception of the County Clerk whose limit is \$1,500).

Refunds over the amounts must be authorized by the Board of Supervisors Minute Order, File No. 9763 require specific approval by the Board of Supervisors. The forms to request for refunds under \$500.00 (Five Hundred Dollars) are available at this office or any County Offices. If the amount is exceeded, a Board letter and Minute Order must accompany the claim. Applicant shall fill out the request form and the County Fiscal department will process the request.

Enforcement

Penalty. Any person who does any work for which a permit is required by this chapter and who fails to obtain a permit shall be guilty of a misdemeanor punishable by fine not exceeding Five Hundred Dollars (\$500.00) or by imprisonment not exceeding six months, or by both such fine and imprisonment, and such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any such

violation is committed, continued, or permitted, and shall be subject to the same punishment as for the original offense. (Prior gen. code §3-160.6)

Enforcement actions will be determined by this office on a case-by-case basis

Drilling without a permit shall be the cost of the permit(s) and a fine of \$500.00 (Five Hundred Dollars).

Well Completion Reports (State DWR-188 forms) must be filed with the Well Standards Program within 60 days of completing work. Staff will review the report, assign a state well number, and then forward it to the California Department of Water Resources (DWR). Drillers should not send completed reports to DWR directly. Failure to file a Well Completion Report or deliberate falsification of the information is a misdemeanor; it is also grounds for disciplinary action by the Contractors' State License Board. Also note that filed Well Completion Reports are considered private record protected by state law and can only be released to the well owner or those specifically authorized by government agencies.

See our website (www.acgov.org/pwa/wells/index.shtml) for links to additional forms.

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Appl# X0900880 Job Site 245 8TH ST Parcel# 001 -0179-013-00

Descr Excavate on 7th Street side Permit Issued 07/10/09

Allow monitoring wells. Two on 7th and One on Alice St
Work Type EXCAVATION-PRIVATE P

USA # Util Co. Job # Acct#:
Util Fund #:

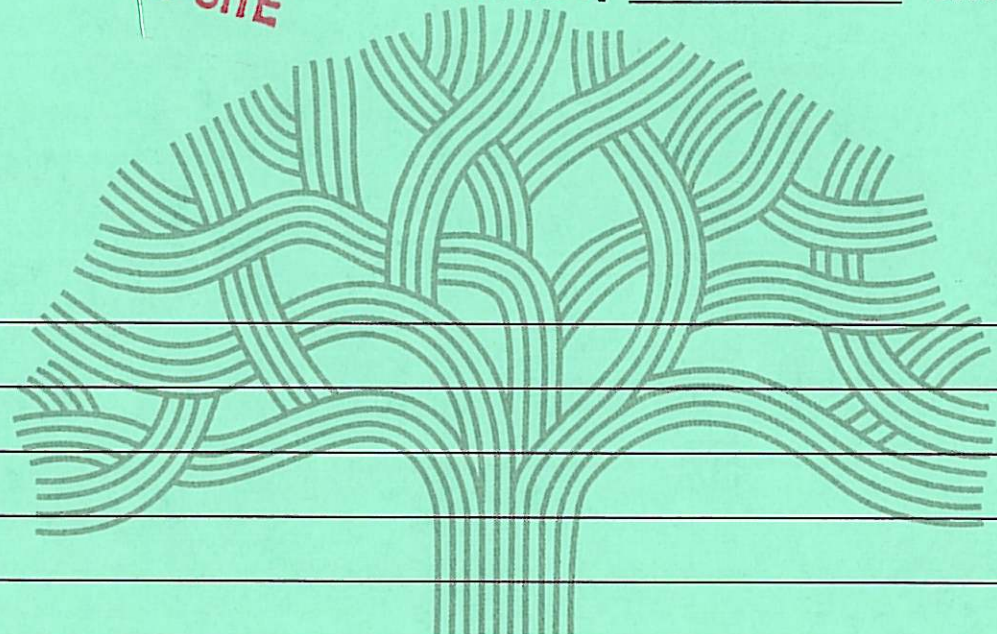
Owner LUM RICHARD & LINDA TRS (510) 832-9014
Contractor ALL ENVIRONMENTAL INC X (925) 283-6000 654919 A
Arch/Engr
Agent AEI/H. TOMSUM (925) 944-2899
Applic Addr 2500 CAMINO DIABLO, WALNUT CREEK, CA, 94597

\$433.18 TOTAL FEES PAID AT ISSUANCE
\$68.50 Applic \$309.00 Permit
\$.00 Process \$35.86 Rec Mgmt
\$.00 Gen Plan \$.00 Invstg
\$.00 Other \$19.82 Tech Enh

238-3651

JOB SITE

Permit Issued By [Signature] Date: 7/10/09
Finaled By _____ Date: _____



ADDRESS:

CITY OF OAKLAND

PAID
7/10/09 *[Signature]*

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Permit No. X0900880 Parcel #: 001 -0179-013-00
Project Address: 245 8TH ST

Page 2 of 2

Licensed Contractors' Declaration

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Construction Lending Agency Declaration

I hereby affirm under penalty of perjury that there is a construction-lending agency for the performance of the work for which this permit is issued, as provided by Section 3097 of the Business and Professions Code. N/A under Lender implies No Lending Agency.

Lender _____ Address _____

Workers' Compensation Declaration

I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

CARRIER: _____ POLICY NO. _____

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS, IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3707 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

Hazardous Materials Declaration

ADDRESS: I hereby affirm that the intended occupancy WILL WILL NOT use, handle or store any hazardous, or acutely hazardous, materials. (Checking "WILL" acknowledges that Sections 25505, 25533, & 25534 of the Health & Safety Code, as well as filing instructions, were made available to you.)

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection. I am fully authorized by the owner and to perform the work authorized by this permit.

PRINT NAME

Signature Contractor, or Agent

Date

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Permit No. X0900881 Parcel #: 001 -0179-013-00
Project Address: 245 8TH ST

Page 2 of 2

Licensed Contractors' Declaration

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Construction Lending Agency Declaration

I hereby affirm under penalty of perjury that there is a construction-lending agency for the performance of the work for which this permit is issued, as provided by Section 3097 of the Business and Professions Code. N/A under Lender implies No Lending Agency.

Lender _____ Address _____

Workers' Compensation Declaration

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I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

CARRIER: _____ POLICY NO. _____

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS, IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3707 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

Hazardous Materials Declaration

I hereby affirm that the intended occupancy WILL WILL NOT use, handle or store any hazardous, or acutely hazardous, materials. (Checking "WILL" acknowledges that Sections 25505, 25533, & 25534 of the Health & Safety Code, as well as filing instructions, were made available to you.)

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection. I am fully authorized by the owner and to perform the work authorized by this permit.

ADDRESS: _____

PRINT NAME

Signature Contractor, or Agent

Date

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Appl# ENMI08241 Job Site 245 8TH ST Parcel# 001 -0179-013-00

Descr To allow monitoring wells. Two on 7th and One on Alice St Filed 12/01/08

JOB SITE

Insurance Required? YES Carrier PIA

Expires

Owner LUM RICHARD & LINDA TRS Applc# X Phone# (510) 832-9014 Lic# --License Classes--

Contractor

Arch/Engr

Agent AEI/H. TOMSUM (925) 944-2899

Applic Addr 2188 HILLSIDE DR, SAN LEANDRO CA, 94577

\$639.16 TOTAL FEES PAID AT FILING

\$.00 TOTAL FEES PAID AT ISSUANCE

\$66.00 Applic \$.00 Permit

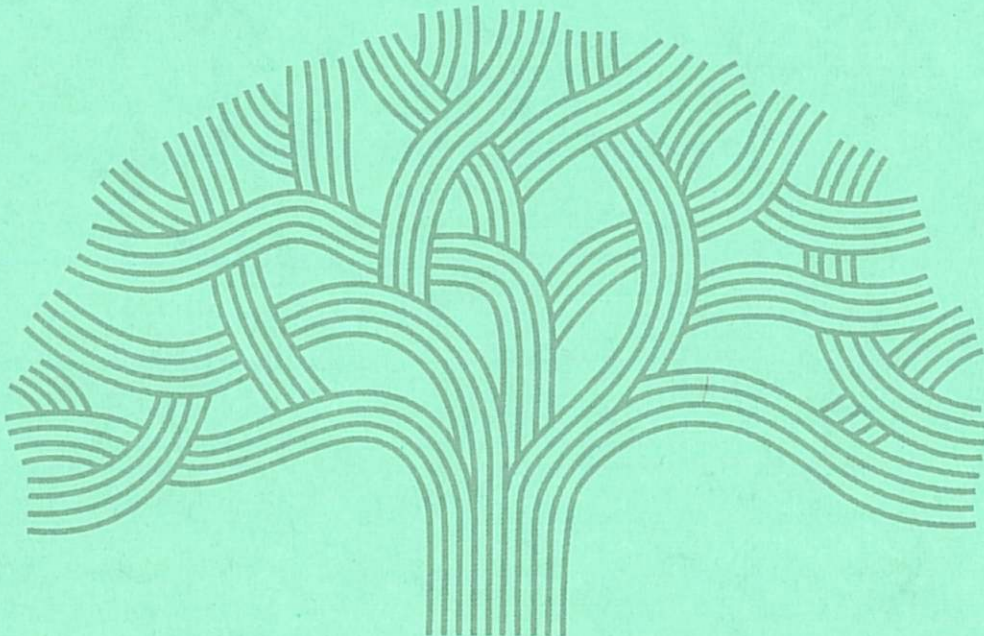
\$491.00 Process \$52.92 Rec Mgmt

\$.00 Gen Plan \$.00 Invstg

\$.00 Other \$29.24 Tech Enh

DRESS:

DIST:



CITY OF OAKLAND

PAID
12/1/08 (signature)

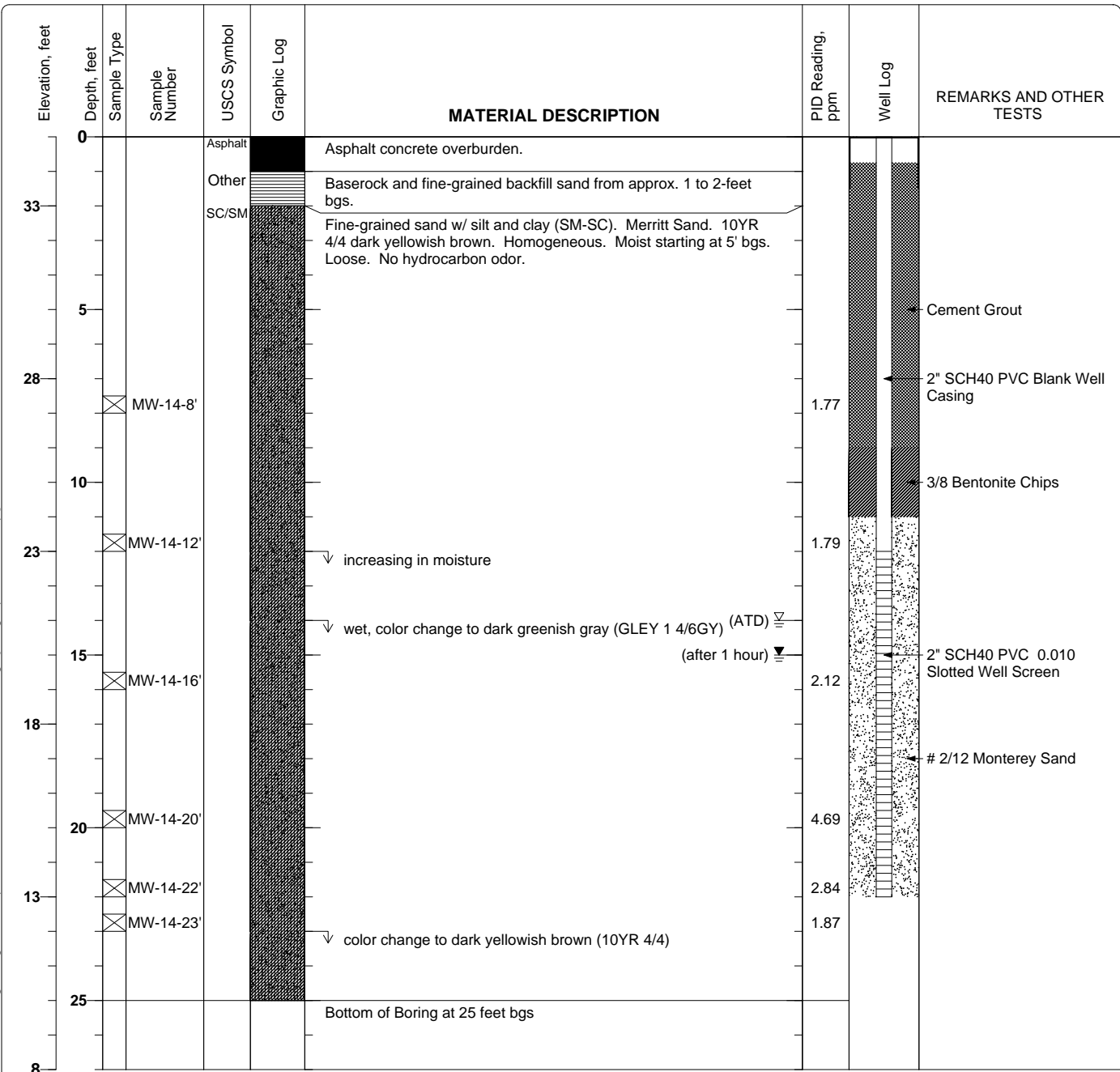
APPENDIX E

BORING & WELL CONSTRUCTION LOGS

Project: Vic's Automotive
Project Location: 245 8th Street, Oakland, California
Project Number: 116907

Log of Boring MW-14
 Sheet 1 of 1

Date(s) Drilled July 28, 2009	Logged By Ricky Bradford	Checked By Peter McIntyre
Drilling Method Hollow Stem Auger	Drill Bit Size/Type 8 inch	Total Depth of Borehole 25 feet bgs
Drill Rig Type CME 75	Drilling Contractor RSI	Approximate Surface Elevation 35 feet MSL
Groundwater Level and Date Measured 14 feet ATD, 15 feet after 1 hour	Sampling Method(s) Tube	Hammer Data
Borehole Backfill Well Completion	Location Parking Lane Along 7th Street Southwest of the Subject Property	

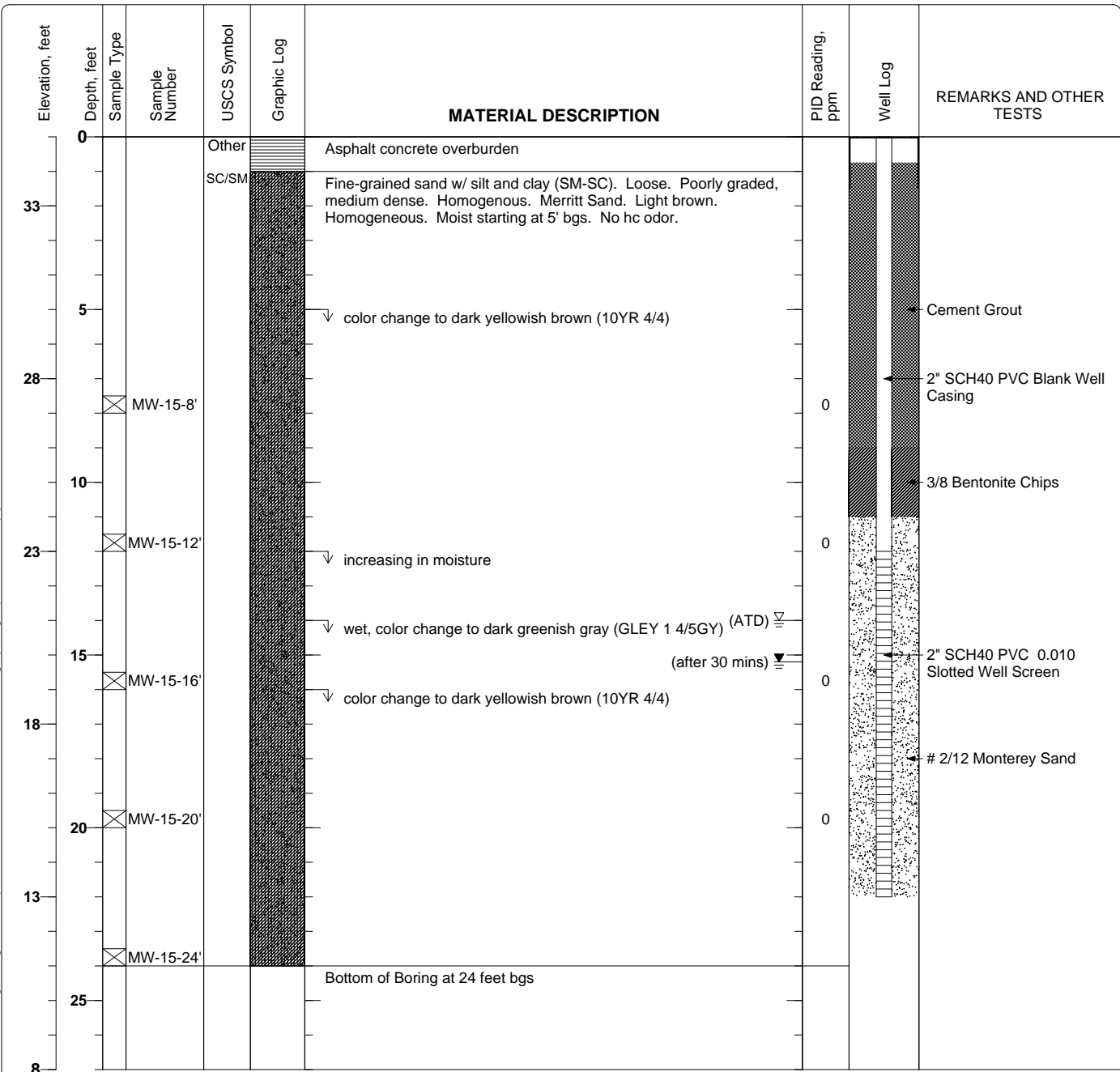


Figure

Project: Vic's Automotive
Project Location: 245 8th Street, Oakland, California
Project Number: 116907

Log of Boring MW-15
 Sheet 1 of 1

Date(s) Drilled March 17, 2008	Logged By Ricky Bradford	Checked By Peter McIntyre
Drilling Method Hollow Stem Auger	Drill Bit Size/Type 8 inch	Total Depth of Borehole 24 feet bgs
Drill Rig Type CME 75	Drilling Contractor RSI	Approximate Surface Elevation 35 feet MSL
Groundwater Level and Date Measured 14 feet ATD, 15.2 feet after 30 mins	Sampling Method(s) Tube	Hammer Data
Borehole Backfill Well Completion	Location Parking Lane Along 7th Street Southwest of the Subject Property	

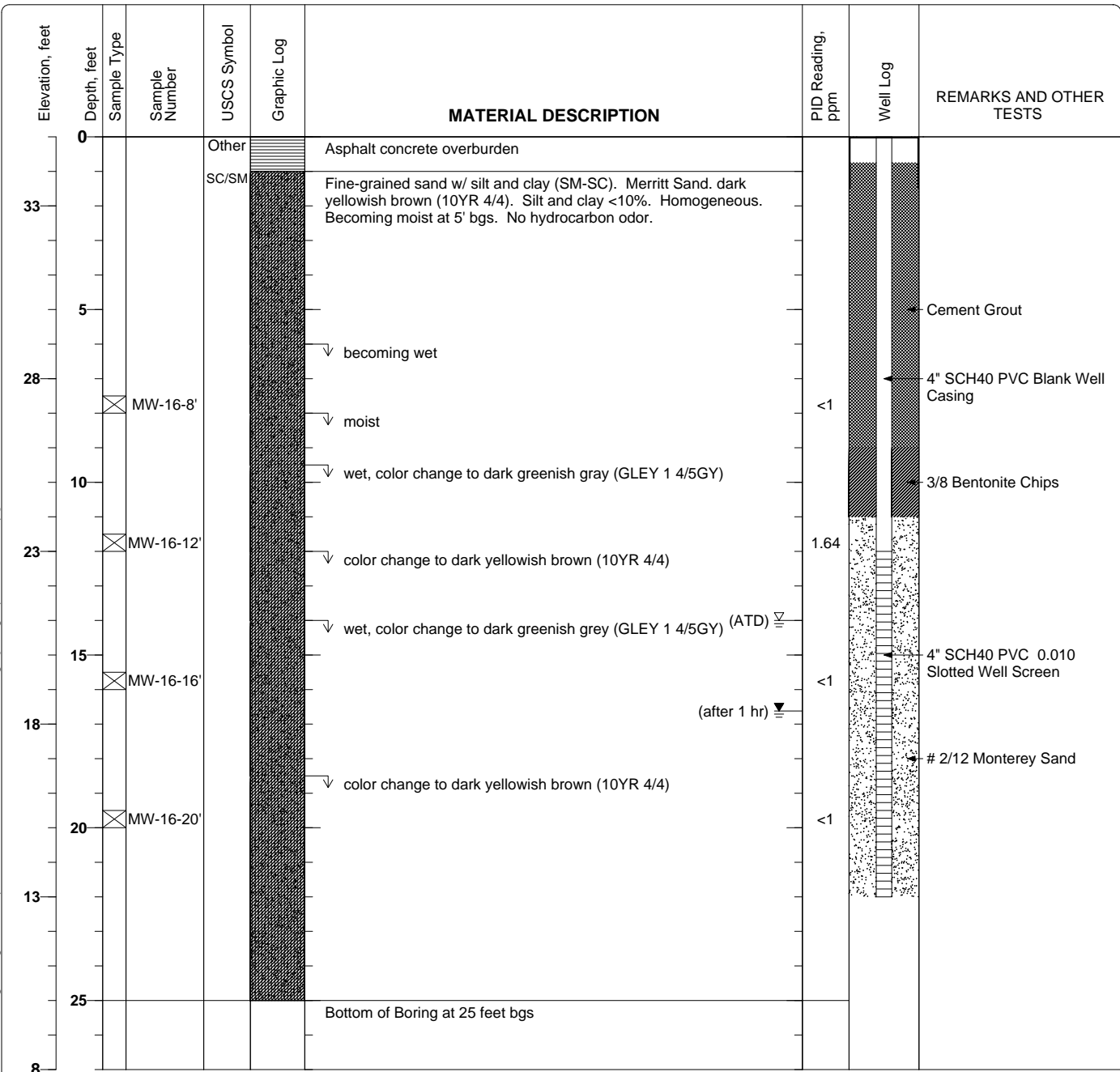


Figure

Project: Vic's Automotive
Project Location: 245 8th Street, Oakland, California
Project Number: 116907

Log of Boring MW-16
 Sheet 1 of 1

Date(s) Drilled July 28, 2009	Logged By Ricky Bradford	Checked By Peter McIntyre
Drilling Method Hollow Stem Auger	Drill Bit Size/Type 10 inch	Total Depth of Borehole 25 feet bgs
Drill Rig Type CME 75	Drilling Contractor RSI	Approximate Surface Elevation 35 feet MSL
Groundwater Level and Date Measured 14 feet ATD, 16.62 feet after 1 hr	Sampling Method(s) Tube	Hammer Data
Borehole Backfill Well Completion	Location Parking Lane Along Alice Street Southwest of the Subject Property	



Figure

APPENDIX F

MONITORING WELL SURVEY

Monitoring Well Exhibit

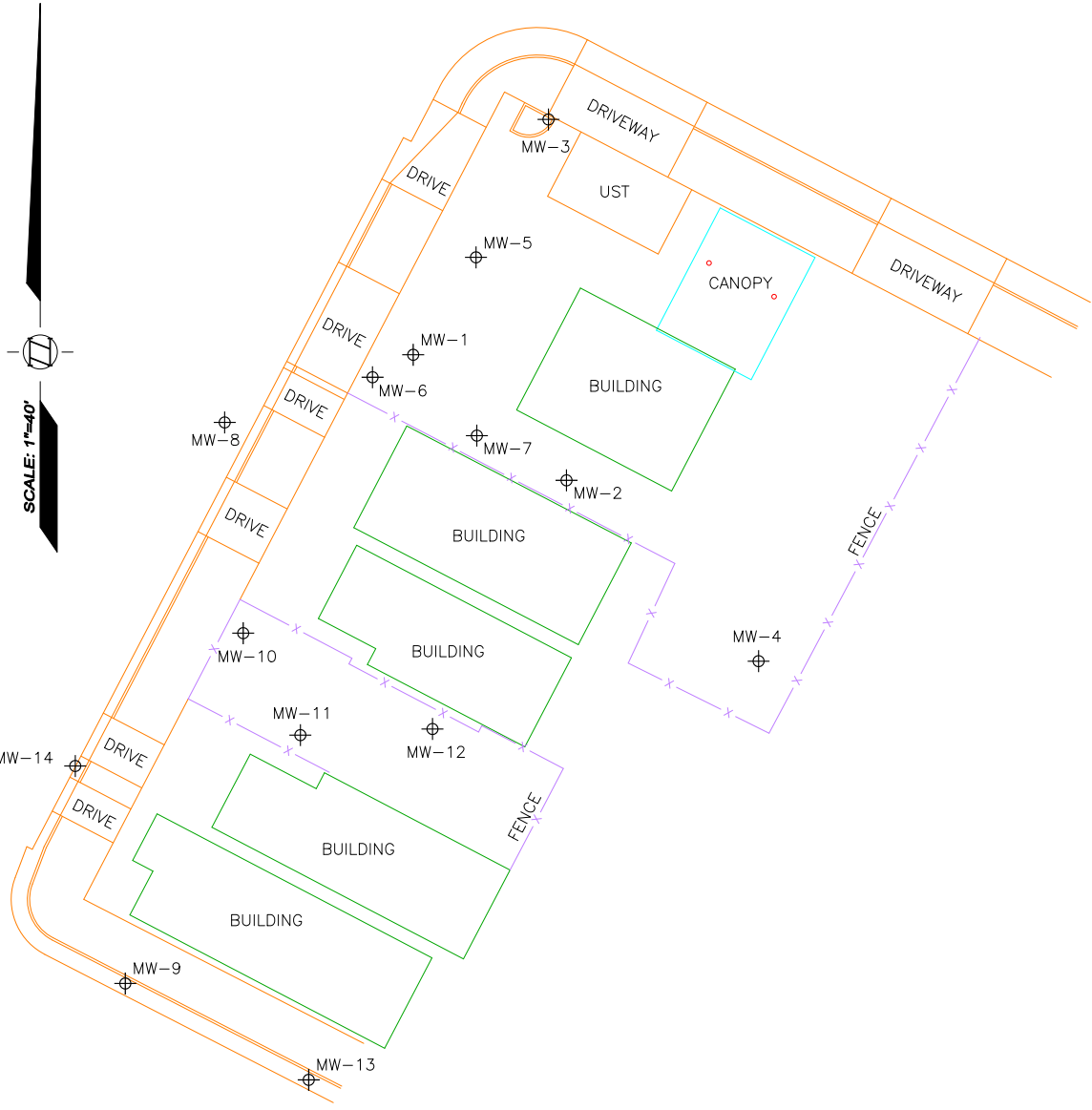
Prepared For:
AEI Consultants

1255 Starboard Drive
West Sacramento
California 95691
(916) 372-8124
adamz@morrrowsurveying.com



Service Station
245 8th Street/708 Alice Street
Oakland
Alameda County
California

Date: 1-10-06
Scale: 1" = 30'
Sheet 1 of 1
Rev: 7-30-08\10-2-09
Field Book: MW-22,41
Dwg. No. 0116-022 AZ



SCALE: 1"=40'



DESCRIPTION	NORTHING	EASTING	ELEV (PVC)	ELEV (BOX)
MW-1	2117872.1	6050571.5	32.55	33.06
MW-2	2117844.7	6050605.0	33.24	33.75
MW-3	2117923.6	6050601.0	34.25	34.60
MW-4	2117805.2	6050646.9	34.42	34.75
MW-5	2117893.4	6050585.2	33.33	33.77
MW-6	2117867.2	6050562.6	32.82	32.40
MW-7	2117854.5	6050585.4	33.07	33.42
MW-8	2117857.4	6050530.3	31.73	31.92
MW-9	2117734.8	6050508.6	29.02	29.30
MW-10	2117811.3	6050534.3	31.17	31.59
MW-11	2117789.0	6050546.8	31.78	32.11
MW-12	2117790.4	6050575.7	32.05	32.40
MW-13	2117713.7	6050548.6	28.84	29.12
MW-14	2117782.3	6050497.6	29.53	29.93
MW-15	2117685.3	6050479.3	29.22	29.42
MW-16	2117658.5	6050533.1	28.87	29.14

DESCRIPTION	LATITUDE	LONGITUDE
MW-1	37.7980266	-122.2690181
MW-2	37.7979530	-122.2689004
MW-3	37.7981694	-122.2689192
MW-4	37.7978467	-122.2687526
MW-5	37.7980858	-122.2689721
MW-6	37.7980127	-122.2690485
MW-7	37.7979789	-122.2689689
MW-8	37.7979839	-122.2691597
MW-9	37.7976462	-122.2692268
MW-10	37.7978577	-122.2691427
MW-11	37.7977972	-122.2690980
MW-12	37.7978023	-122.2689982
MW-13	37.7975904	-122.2690868
MW-14	37.7977760	-122.2692679
MW-15	37.7975087	-122.2693249
MW-16	37.7974380	-122.2691368

BASIS OF COORDINATES AND ELEVATIONS:
 COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3 COORDINATES FROM GPS OBSERVATIONS USING UNIVERSITY OF CALIFORNIA BAY AREA DEFORMATION CORS STATION OBSERVATION FILES AND BASED ON THE CALIFORNIA SPATIAL REFERENCE CENTER DATUM, REFERENCE EPOCH 2000.35.
 COORDINATE DATUM IS NAD 83(CORS).
 DATUM ELLIPSOID IS GRS80.
 REFERENCE GEOID IS GEOID99.
 CORS STATIONS USED WERE TIBB AND DIAB.
 VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS.

APPENDIX G

**CURRENT & PROPOSED GROUNDWATER
MONITORING SCHEDULE**

APPENDIX E: CURRENT & PROPOSED GROUNDWATER MONITORING SCHEDULE

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

Field Point Name	Well Type / Use (Screen Interval)	CURRENT MONITORING SCHEDULE			PROPOSED MONITORING SCHEDULE		
		TPH-g (SW8015C)	MBTEX (SW8021B)	MTBE Only (SW8260B)	TPH-g (SW8015C)	MBTEX (SW8021B)	MTBE Only (SW8260B)
*MW-1	4" Monitoring / Extraction Well (8 to 28)	Q	Q	AN	Q	Q	AN
*MW-2	2" Monitoring / Extraction Well (8 to 28)	Q	Q	AN	Q	Q	AN
MW-3	2" Monitoring Well (10 to 25)	Q	Q	AN	A (Q4)	A (Q4)	AN
MW-4	2" Monitoring Well (10 to 25)	Q	Q	AN	A (Q4)	A (Q4)	AN
*MW-5	4" Monitoring / Extraction Well (12 to 22)	Q	Q	AN	Q	Q	AN
*MW-6	4" Monitoring / Extraction Well (12 to 22)	Q	Q	AN	Q	Q	AN
*MW-7	4" Monitoring / Extraction Well (12 to 22)	Q	Q	AN	Q	Q	AN
MW-8	4" Monitoring Well (12 to 22)	Q	Q	AN	A (Q4)	A (Q4)	AN
MW-9	2" Monitoring Well (12 to 22)	Q	Q	AN	Q	Q	AN
MW-10	4" Monitoring / Extraction Well (12 to 22)	Wellheads removed and active extraction wells burried beneath new residential construction in August of 2008					
MW-11	4" Monitoring / Extraction Well (12 to 22)	Wellheads removed and active extraction wells burried beneath new residential construction in August of 2008					
MW-12	4" Monitoring / Extraction Well (12 to 22)	Wellheads removed and active extraction wells burried beneath new residential construction in August of 2008					
MW-13	2" Monitoring Well (12 to 22)	Q	Q	AN	Q	Q	AN
**MW-14	New 2" Monitoring Well (12 to 22)	Q	Q	AN	Q	Q	AN
**MW-15	New 2" Monitoring Well (12 to 22)	Q	Q	AN	Q	Q	AN
**MW-16	New 2" Monitoring Well (12 to 22)	Q	Q	AN	Q	Q	AN

NOTES:

*For remediation progress monitoring, the onsite monitoring / extraction wells (MW-1, 2, 5, 6, & 7) will be sampled quarterly only if the HVDPE system is not operating

**New monitoring wells, which were installed in July of 2009, have not been sampled and should be monitored quarterly for at the first year or one (1) hydrologic cycle

Q = Quarterly

SA = Semi-Annual

A = Annual

AN = As Needed

A followed by (Q4) means that annual sampling will occur in the Fourth Quarter