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December 31, 2009

Mr. Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

**Subject: Perjury Statement and Report Transmittal  
Quarterly Site Monitoring Report (Fourth Quarter, 2009)**

245 8<sup>th</sup> Street  
Oakland, California 94607  
AEI Project No. 116907  
ACEH RO#0000202

Dear Mr. Wickham:

I declare under penalty of perjury, that the information and/or recommendations contained in the attached report for the above-referenced site are true and correct to the best of my knowledge.

If you have any questions or need additional information, please do not hesitate to call me at (510) 832-9014, or Mr. Ricky Bradford at AEI Consultants, (925) 746-6000 extension 148.

Sincerely,



Victor Lum  
Owner  
Vic's Automotive

RB/vl

Attachment

cc: Mr. Ricky Bradford, AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597

December 31, 2009

**QUATERLY SITE MONITORING REPORT  
(FOURTH QUARTER, 2009)**

245 8<sup>th</sup> Street  
Oakland, California

AEI Project No. 116907  
ACHCSA RO#00000202

Prepared For:

Vic's Automotive  
245 8<sup>th</sup> Street  
Oakland, California 94607

Prepared By:

**AEI Consultants**  
2500 Camino Diablo, Suite 200  
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**AEI**

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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 8<sup>th</sup> 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 Fourth 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 October, November, and December of 2009.

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

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

## 2.0 SITE DESCRIPTION & BACKGROUND

The subject property (hereafter referred to as the "site" or "property") is located in a mixed commercial and residential area of Oakland. The site is a lot on the south corner of Alice Street and 8<sup>th</sup> 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 8<sup>th</sup> 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 7<sup>th</sup> 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 1<sup>st</sup> 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.

- In July of 2009, monitoring wells (MW-14, MW-15, and MW-16) were installed. MW-14 was installed in the parking lane along Alice Street approximately 80 feet southwest of MW-8. MW-15 and MW-16 were installed in the parking lane on the southwest side of 7<sup>th</sup> Street approximately 60 feet apart. The monitoring wells were developed by surging and over-pumping on August 3, 2009. Elevated concentrations of TPH-g and BTEX were detected in samples collected from MW-14. MTBE was not detected in MW-14 at or above the laboratory reporting limit of 1.0 µg/L. Lower concentrations of TPH-g, BTEX, and MTBE were detected in MW-15 and MW-16. Refer to AEI's "Monitoring Well Installation & Quarterly Site Monitoring Report (Third Quarter, 2009)", dated October 13, 2009, for more detailed information. The monitoring well locations are shown on Figure 2.
- On December 2, 2009, the property owner and AEI held a meeting with the ACHSA to discuss the results of a rebound evaluation and recommendations regarding future activities for the site.

### **3.0 GEOLOGY AND HYDROGEOLOGY**

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

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

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



## **4.0 HVDPE TECHNOLOGY AND PROCESS DESCRIPTION**

### **4.1 Technology Overview**

HVDPE is a proven and effective technology for a wide range of soil types and subsurface conditions. HVDPE is often also referred to as dual phase extraction (DPE), multi-phase extraction (MPE), two-phase extraction (TPE), and sometimes “bioslurping”. There are several variations of this technology, but 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.

### **4.2 Site, System, & Process Description**

Light non-aqueous phase liquid (LNAPL), soil gas and groundwater are simultaneously extracted through a single 1-inch diameter drop tube currently installed in eight (8) monitoring/extracting wells (MW-1, MW-2, MW-5 to MW-7, and MW-10 to MW-12) using two (2) 15 horsepower water-sealed liquid ring pumps piped in parallel. These pumps can generate flows up to 140 cubic feet per minute (cfm) each (i.e., 280 cfm combined capacity) and high vacuums of up to 28 in-Hg, but normally operate in the range of 18 to 22 in-Hg. The monitoring wellheads were modified for dual phase extraction by installing a 1-inch PVC ambient bleed air valve, two-hole cast iron wellhead pump seal, stinger and casing vacuum gauges, and 1-inch clear, flexible PVC stinger. The manifold and conveyance piping leading up to the manifold were constructed out of schedule 80 PVC. Recovered LNAPL, soil gas, and groundwater are separated by a knock-out tank. Because the LNAPL and other gasoline fuel hydrocarbons dissolved in the groundwater are volatilized under high vacuum (i.e., >20 in-Hg), an oil-water separator is not used. A progressive cavity pump transfers the groundwater from the knock-out tank to the top of the low-profile air stripping unit. Groundwater trickles-down through small holes in the air stripper trays, where nearly 99% of the remaining volatile fuel hydrocarbons are stripped from the groundwater. Groundwater is pumped from the air stripper reservoir to a single 1,000-pound activated carbon absorber, where its further treated and polished and then discharged to the onsite sanitary sewer under a wastewater discharge permit from the East Bay Municipal Utilities District (EBMUD).

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

A Dwyer<sup>®</sup> Instruments (Model No. DS-300) averaging pitot tube combined with a dual-scale Magnehelic<sup>®</sup> differential pressure gauge is used to measure the well velocity and total velocity.

The well velocity and total velocity are multiplied by the cross sectional area of the pipe (i.e., 0.0491 ft<sup>2</sup> 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.

## **5.0 SUMMARY OF MONITORING ACTIVITIES**

### **5.1 Quarterly Groundwater Monitoring**

On November 5, 2009, the HVDPE shutdown due to a low water level alarm on liquid ring pump (LRP) #2 caused by a faulty transfer pump. The system remained shutdown the rest of November pending repair of the transfer pump. On November 23, 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-1, MW-2, MW-5, MW-6, and MW-7 were tested for MTBE only by EPA Method SW8260B.

## **5.2 Quarterly Soil Gas Monitoring for Vapor Intrusion Evaluation**

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

## **5.3 HVDPE System Process Monitoring**

### ***5.3.1 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 (ft<sup>2</sup>) 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 to c) 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 (ft<sup>2</sup>) 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-H<sub>2</sub>O), 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.

### ***5.3.2 Influent & Effluent Vapor Monitoring***

Influent and effluent process vapor samples were collected on October 2, October 20, November 3, and December 11, 2009. 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, CH<sub>4</sub>, O<sub>2</sub>, and CO<sub>2</sub> 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.

### ***5.3.3 Influent & Effluent Water Monitoring***

Influent and effluent process water samples were collected on October 20 and December 11, 2009. Process water samples were not collected in November because the system was shutdown due to a faulty transfer pump.

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 BTEX by EPA Method 8021B.

### ***5.3.4 Soil Gas Composition & Vacuum Influence Monitoring***

On October 2, November 3, and December 11, 2009, the nested soil gas probes (GP-1 and GP-2) were screened in the field for TVH, CH<sub>4</sub>, O<sub>2</sub>, and CO<sub>2</sub> and vacuum influence was measured.

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<sup>®</sup> 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, CH<sub>4</sub>, O<sub>2</sub>, and CO<sub>2</sub> 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<sup>®</sup> bags for laboratory analysis.

## **5.4 HVDPE System Operations & Maintenance**

### ***5.4.1 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 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 of 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.

#### ***5.4.2 Non-Routine Maintenance***

Non-routine maintenance performed during this quarter included:

- On October 2, 2009, the well casings of MW-1, 2, 5, 6, and 7 were checked for cracks and the wellhead seals were checked for leaks. No cracked casings or wellhead seal leaks were identified on MW-2, 5, 6, or 7; however, a large well casing crack was discovered on MW-1. In addition, the flow totalizer was not working properly. The flow totalizer was inspected and the transfer pump along with the high water and low water level switches were tested. The transfer pump and high water and low water level switches all checked out; however, the flow totalizer was broken and needed replacement. The system shutdown due to a flameout approximately five (5) hours after demobilizing from the site.
- On October 5, 2009, the veri-flame alarm was cleared and the system was restarted. It was unclear what caused the flameout, but based on visual observations, the flame appeared to be weak. Therefore, the pilot gas pressure was increased slightly (from 5 to 6 in-H<sub>2</sub>O) to improve the flame strength.
- On October 7, 2009, the Neptune (Model T-10) flow totalizer was replaced. The final reading on the broken totalizer was 1,520,090 gallons.
- On October 20, 2009, the cracked casing on MW-1 was repaired using half of a 4-inch PVC coupling and section of solid PVC well casing. In addition, the leaking wellhead seal on MW-6 was retightened.
- On November 5, 2009, the HVDPE system shutdown due to a low water level alarm on LRP #2.
- On November 11, 2009, the cause of the low water level alarm on LRP #2 was inspected. The level switch was removed, cleaned, and checked for proper operation. The float valve

was inspected and checked for obstructions. No water was observed in the reservoir and no water was being pumped through the supply line.

- On November, 12, 2009, the transfer pump was running, but no water was being pumped. The transfer pump was broken and needed to be rebuilt. The pump was disassembled and a rebuild kit was ordered later that afternoon.
- On December 9, 2009, the transfer pump was rebuilt and reinstalled in the HVDPE system.
- On December 12, 2009, LRP #2 was primed with water and the HVDPE system was restarted. Prior to restarting the HVDPE system, the soil gas probes GP-1 and GP-2 were screened for TVH, CH<sub>4</sub>, O<sub>2</sub>, and CO<sub>2</sub>. MW-6 was shutdown because a vacuum leak was detected at the wellhead.
- On December 14, 2009, the HVDPE system was checked for proper operation. The HVDPE system was operating normally.
- On December 16, 2009, the leaking wellhead seal on MW-6 was inspected. A large 3-inch long crack was identified, but was not repaired. MW-6 remained off pending repair.
- On December 23, 2009, the HVDPE system shutdown due to a flameout because the system ran out of propane.
- No other none-routine maintenance was performed during this quarter.

### **5.4.3 System Modifications**

System modifications completed during this quarter included:

- The system operation focused on extracting hydrocarbons from MW-2, MW-5, MW-7, MW-10, and MW-11 through the end of December.
- No other major system modifications were performed during this quarter.

## **6.0 RESULTS & CONCLUSIONS**

### **6.1 Apparent LNAPL Thickness, Groundwater Elevations, and Hydraulic Gradient**

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

- LNAPL was not encountered 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 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.
- The currently groundwater flow direction and hydraulic gradient is 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.

## 6.2 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-9, MW-6, and MW-7 at concentrations of 39,000 µg/L, 28,000 µg/L, and 17,000 µg/L, respectively.
- The highest concentration of benzene was detected in MW-9 at a concentration of 11,000 µg/L. The second, third, and fourth highest concentrations of benzene were detected in MW-1, MW-7, and MW-16 at concentrations of 3,300 µg/L, 430 µg/L, and 280 µg/L, respectively.
- The highest concentration of MTBE was detected in MW-9 at a concentration of 750 µg/L. The second and third highest concentrations of MTBE were detected in MW-7 and MW-16 at concentrations of 32 µg/L and 31 µg/L, respectively.
- Higher concentrations of TPH-g and BTEX were detected in source area wells MW-1, MW-6, and MW-7. High concentrations of TPH-g and BTEX were also detected in MW-9, which is down gradient of the release.



- Moderate concentrations of TPH-g and BTEX were detected in MW-5 and MW-14 and lower concentrations of TPH-g and BTEX were detected in MW-2, MW-8, MW-15, and MW-16.
- Lower to none-detectable concentrations of BTEX were detected in MW-3 and MW-4.
- TPH-g, BTEX, and MTBE were not detected at or above the standard laboratory reporting limits in MW-13.

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.

### **6.3 HVDPE System Process Monitoring**

#### ***6.3.1 Influent & Effluent Vapor Sample Analytical Data***

The field screening and analytical results of the monthly influent and effluent process vapor samples collected on October 2, October 20, November 3, December 11, and December 16, 2009 are summarized below:

- On October 2, 2009, vapor samples were collected from the extraction wells MW-2S, 5S, 7S, 10S, and 11S and the combined influent and effluent. The concentrations of TPH-g ranged from 880 ppmv (MW-11S) to 5,300 ppmv (MW-7S). The concentrations of benzene ranged from 9.4 ppmv (MW-5S) to 100 ppmv (MW-7S). TPH-g and benzene were detected in the combined influent at concentrations of 2,400 ppmv and 43 ppmv, respectively. TPH-g and BTEX were not detected in the effluent at or above the standard laboratory reporting limits.
- On October 20, 2009, vapor samples were collected from the extraction wells MW-1S, 2S, 5S, 6S, 7S, 10S, 11S, and 12S and the combined influent. The concentrations of TPH-g ranged from 78 ppmv (MW-6S) to 3,800 ppmv (MW-7S). The concentrations of benzene ranged from 0.69 ppmv (MW-6S) to 85 ppmv (MW-2S). With valves for MW-1S, MW-6S, and MW-12S closed, TPH-g and benzene were detected in the combined influent at concentrations of 2,500 ppmv and 38 ppmv, respectively. With valves for MW-1S, MW-6S, and MW-12S open, TPH-g and benzene were detected in the combined influent at concentrations of 590 ppmv and 7.7 ppmv, respectively.
- On November 3, 2009, vapor samples were collected from the extraction wells MW-2S, 5S, 7S, 10S, and 11S and the combined influent and effluent. The concentrations of TPH-g ranged from 820 ppmv (MW-11S) to 3,800 ppmv (MW-7S). The concentrations of benzene ranged from 4.7 ppmv (MW-5S) to 68 ppmv (MW-2S). TPH-g and benzene were detected in the combined influent at concentrations of 2,000 ppmv and 27 ppmv, respectively. TPH-g

and BTEX were not detected in the effluent at or above the standard laboratory reporting limits.

- On December 11, 2009, vapor samples were collected from the extraction wells MW-1S, 2S, 5S, 6S, 7S, 10S, 11S, and 12S and the combined influent. The concentrations of TPH-g ranged from 29 ppmv (MW-6S) to 1,600 ppmv (MW-2S). The concentrations of benzene ranged from 0.20 ppmv (MW-6S) to 39 ppmv (MW-2S). With valves for MW-1S, MW-6S, and MW-12S open, TPH-g and benzene were detected in the combined influent at concentrations of 690 ppmv and 10 ppmv, respectively.
- On December 16, 2009, a vapor sample was collected from the combined influent. With valves for MW-1S, MW-6S, and MW-12S closed, TPH-g and benzene were detected in the combined influent at concentrations of 1,200 ppmv and 35 ppmv, respectively.
- The HVDPE system was shutdown for over one month between November 5 and December 11, 2009. The concentrations of O<sub>2</sub> decreased and the concentrations of CO<sub>2</sub> increased in MW-2S, MW-7S, MW-10S, and MW-11S. The concentrations of O<sub>2</sub> decreased from approximately 20% in MW-2S, 7S, 10S, and 11S to 9.2%, 9.5%, 7.1%, and 13%, respectively. The concentrations of CO<sub>2</sub> increased from approximately 1.0% in MW-2S, 7S, 10S, and 11S to 4.4%, 7.0%, 4.2%, and 2.5%, respectively. This data indicates that biodegradation is occurring in the subsurface and that a hydrocarbon source may still exist in the vicinity of these wells.

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.

### ***6.3.2 Influent & Effluent Water Sample Analytical Data***

Influent and effluent water samples were not collected in November because the HVDPE system was shutdown due to a faulty transfer pump. The analytical results of the monthly influent and effluent water samples collected on October 20 and December 11, 2009 are summarized below:

- On October 20, 2009, TPH-g, benzene, toluene, ethylbenzene, and total xylenes were detected in the combined water influent samples at concentrations of 7,500 µg/L, 270 µg/L, 650 µg/L, 60 µg/L, and 1,600 µg/L, respectively.
- On December 11, 2009, TPH-g, benzene, toluene, ethylbenzene, and total xylenes were detected in the combined water influent samples at concentrations of 4,800 µg/L, 140 µg/L, 350 µg/L, 60 µg/L, and 770 µg/L, respectively.
- The average air stripper removal efficiency for this quarter was approximately 97.9%.
- TPH-g and BTEX were not detected in the combined effluent samples 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.

### **6.3.3 Influent Well Vapor and Water Flow Rates**

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

- The well influent vapor velocity ranged from approximately 1,100 to 3,000 feet per minute (fpm) and the well influent vapor flow rate ranged from 52 to 148 standard cubic feet per minute (scfm).
- Average groundwater extraction rates ranged from 3,751 to 4,579 gallons per day or approximately 2.6 to 3.2 gallons per minute (gpm).
- Approximately 120,630 gallons of groundwater was recovered, treated, and discharged to the sanitary sewer between October 2, 2009 and December 11, 2009.
- A total of 1,640,720 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.

### **6.3.4 Mass Removal Rates**

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

- The vapor phase mass removal rates ranged from approximately 47 to 148 pounds per day (lbs/day) with an overall average of approximately 76 lbs/day during this reporting period. The average vapor phase mass removal rates increased by approximately 127% when compared to the average recovery rate of approximately 60 lbs/day during the Third Quarter, 2009.
- Approximately 3,399 pounds or 566 gallons of vapor phase gasoline was recovered and treated between October 2 and December 11, 2009.
- Approximately 31,890 pounds or 5,315 gallons of vapor phase gasoline has been removed since startup in June of 2007.
- Although insignificant when compared with the vapor phase mass removal rates, the dissolved phase mass removal rates ranged from 0.0 to 0.2 lbs/day.

- Approximately 146 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.

### **6.3.5 Soil Gas Composition and Vacuum Influence**

The results of the TVH, CH<sub>4</sub>, O<sub>2</sub>, and CO<sub>2</sub> field screening data and vacuum influence measurements collected on October 2, November 3, and December 11, 2009 are summarized below:

- On October 2, 2009, water was detected in GP-1 and GP-2 at 10-foot bgs, but not at 5-foot bgs. No TVH or CH<sub>4</sub> and nearly ambient concentrations of O<sub>2</sub> and CO<sub>2</sub> were measured in GP-1 and GP-2 at 5-foot bgs. The vacuum influences in GP-1 and GP-2 at 5-foot bgs were 1.7 in-H<sub>2</sub>O and 2.2 in-H<sub>2</sub>O respectively.
- On November 3, 2009, water was detected in GP-1 and GP-2 at 10-foot bgs, but not at 5-foot bgs. No TVH or CH<sub>4</sub> and nearly ambient concentrations of O<sub>2</sub> and CO<sub>2</sub> were measured in GP-1 and GP-2 at 5-foot bgs. The vacuum influences in GP-1 and GP-2 at 5-foot bgs were 1.5 in-H<sub>2</sub>O and 2.0 in-H<sub>2</sub>O respectively.
- On November 3, 2009, water was detected in GP-1 and GP-2 at 10-foot bgs and GP-2 at 5-foot bgs. Water was not detected in GP-1 at 5-foot bgs. No TVH or CH<sub>4</sub> and nearly ambient concentrations of O<sub>2</sub> and CO<sub>2</sub> were measured in GP-1 at 5-foot bgs. The vacuum influences in GP-1 at 5-foot bgs was 1.8 in-H<sub>2</sub>O.

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

## **7.0 SUMMARY & PLANNED ACTIVITIES**

This report presented the findings of the Fourth Quarter, 2009 groundwater monitoring event and included a discussion of the field activities and results of the HVDPE system operations and maintenance, process monitoring, evaluation and optimization of the system performance for October, November, and December 2009. Quarterly soil gas sampling for vapor intrusion has been temporarily suspended during the operation of the HVDPE system.

The main results of this monitoring episode are summarized below:

- The results of this groundwater monitoring event are generally consistent with previous episodes.

- LNAPL of 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.
- 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-5 and MW-14.
- Lower to none-detectable concentrations of TPH-g and BTEX were detected in MW-2, MW-3, MW-4, MW-8, MW-15, and MW-16.
- For the first time, TPH-g, BTEX, and MTBE were not detected at or above the standard laboratory reporting limits in MW-13.
- MTBE was not detected at or above the laboratory reporting limits in MW-1, MW-3, MW-4, MW-5, MW-6, MW-8, MW-13, and MW-14.
- Overall, the vapor phase mass removal rates increased by approximately 127% when compared to the previous quarter.
- The significant decrease in O<sub>2</sub> with corresponding increase in CO<sub>2</sub> in MW-2S, MW-7S, and MW-10S after shutting down the HVDPE for over one (1) month indicates that biodegradation is occurring in the subsurface and that a hydrocarbon source may still exist in the vicinity of these wells.

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 ACHSA 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 the elevated reporting limit for MTBE by EPA Method 8021B in certain monitoring wells, AEI recommends testing all wells with elevated reporting limits for MTBE by EPA Method 8260B during the next and subsequent groundwater monitoring events as needed.
- Continue operation of the HVPDE system 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.

- Per the meeting with ACHSA on December 2, 2009, submit a workplan for 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. Evaluate the effectiveness of the HVDPE system and potential alternatives, such as air sparging, if a significant secondary source of fuel hydrocarbon contamination is identified in the soil below and/or outside the influence of the existing dual phase extraction wells.

## 8.0 REFERENCES

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

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

## 9.0 REPORT LIMITATIONS AND SIGNATURES

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

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

Sincerely,  
AEI Consultants



Adrian M. Angel, GIT  
Project Geologist



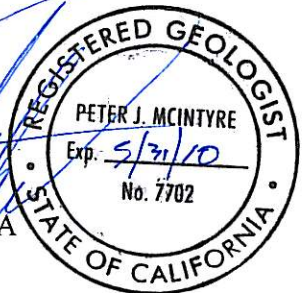
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Senior Project Manager



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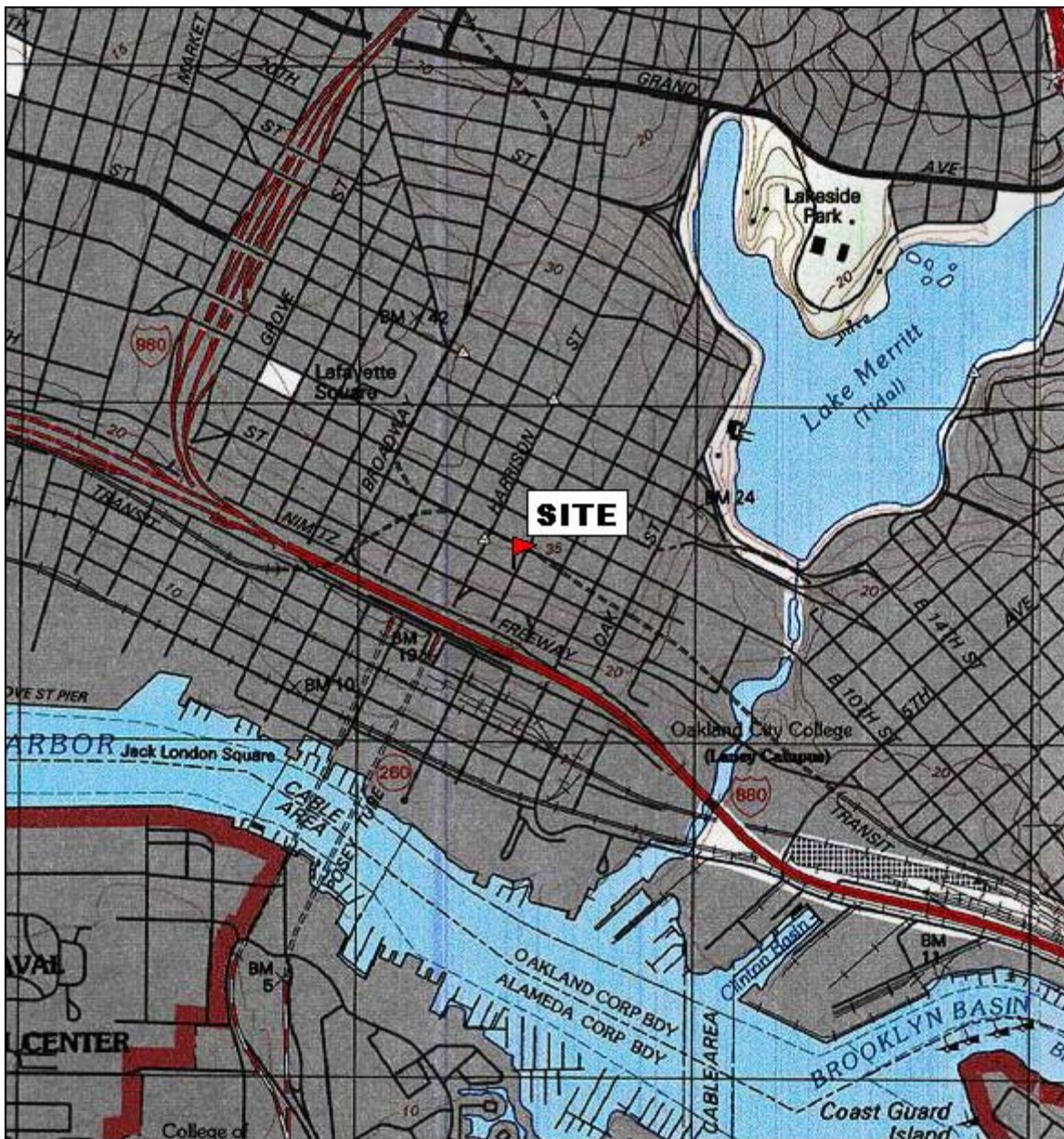
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# FIGURES





TN\* MN  
15 1/4°

0 5 1 MILE  
0 1000 FEET 0 500 1000 METERS

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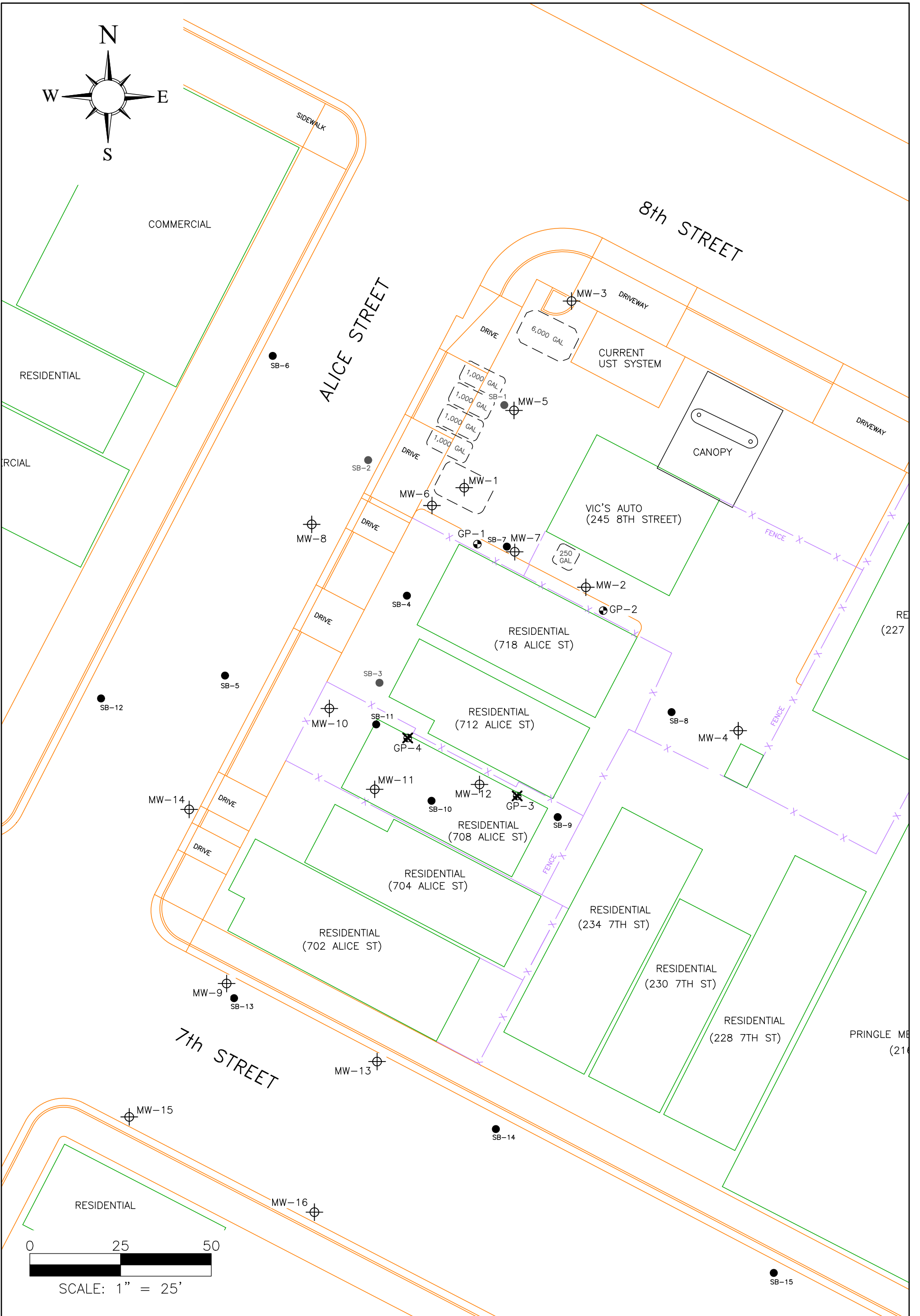
## AEI CONSULTANTS

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

### SITE LOCATION MAP

245 8<sup>th</sup> 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
- ⊗ ABANDONED SOIL GAS PROBE

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

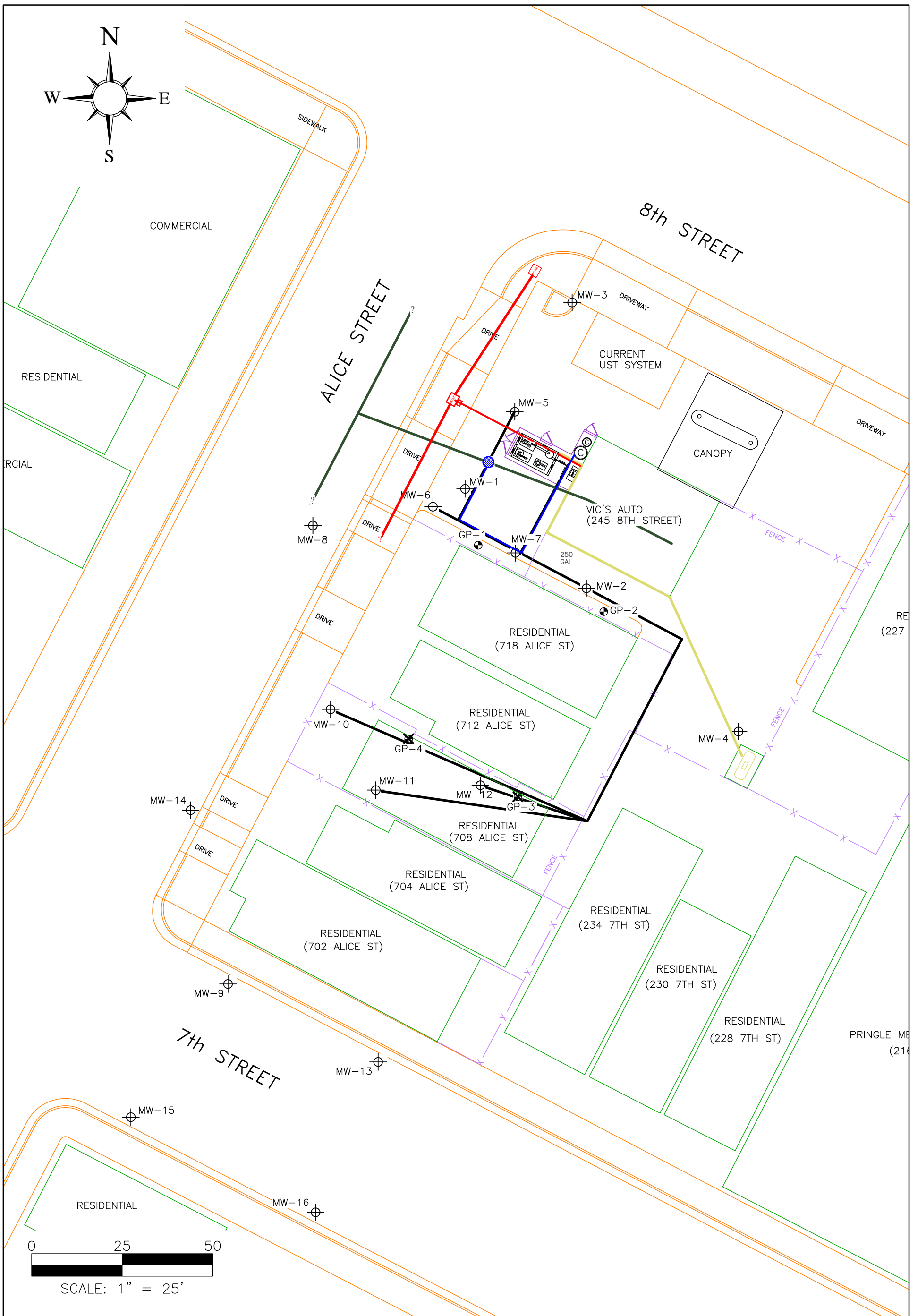
FORMER UST  
 LOCATION

**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
- HVDPPE 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



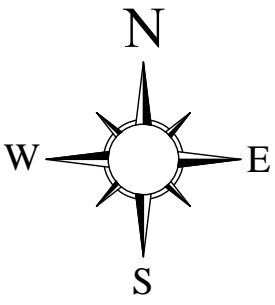
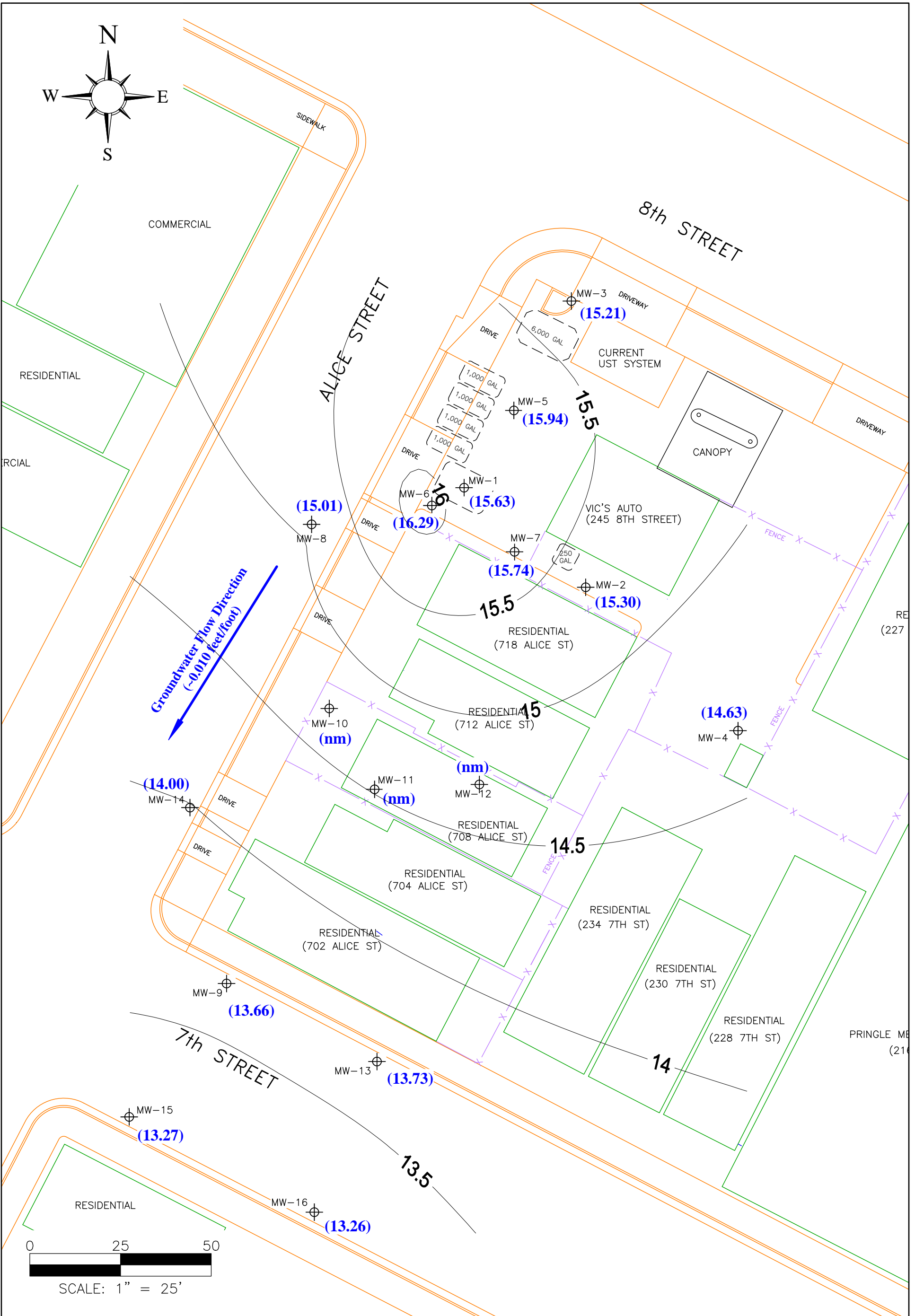
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2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK

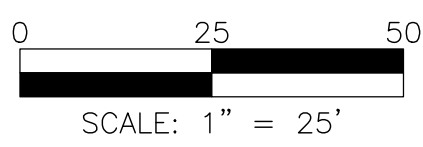
**SYSTEME LAYOUT PLAN**

245 8TH STREET  
 OAKLAND, CALIFORNIA

**FIGURE 3**  
 PROJECT NO. 116907



Groundwater Flow Direction  
 (~-0.010 feet/foot)



**LEGEND**

- MONITORING WELL
- MW-1  
**(15.46)** = feet above mean sea level
- Contour Interval = 0.5 feet
- Contours plotted with Surfer V.7.0
- nm = depth to water not measured

DRAFTED BY RJB 10-01-07  
 REVISED BY AMA 12-31-09



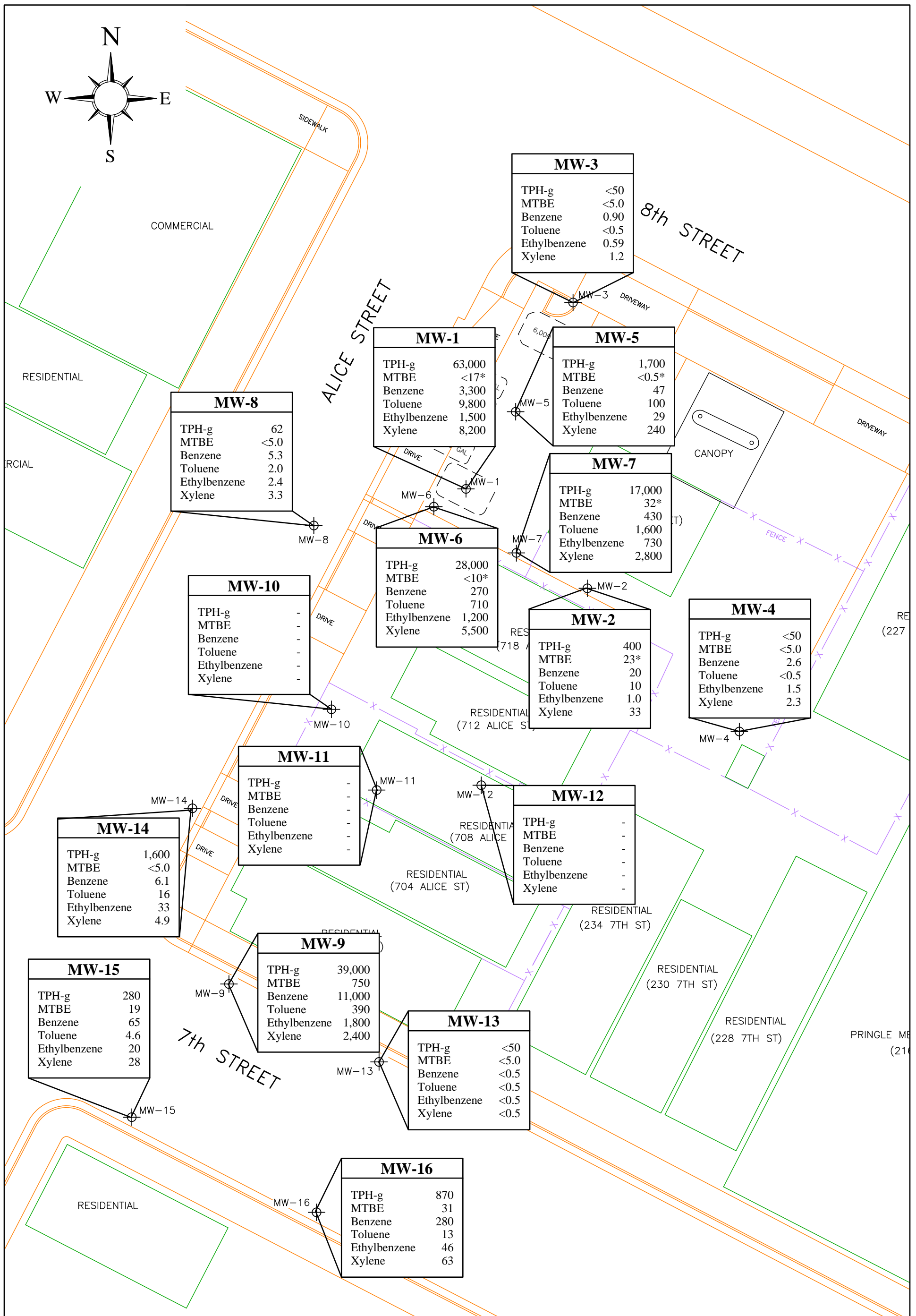
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2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK

**GROUNDWATER ELEVATION CONTOURS (11/23/09)**

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

\*MTBE by EPA Method SW8260B

□  
 FORMER UST  
 LOCATION

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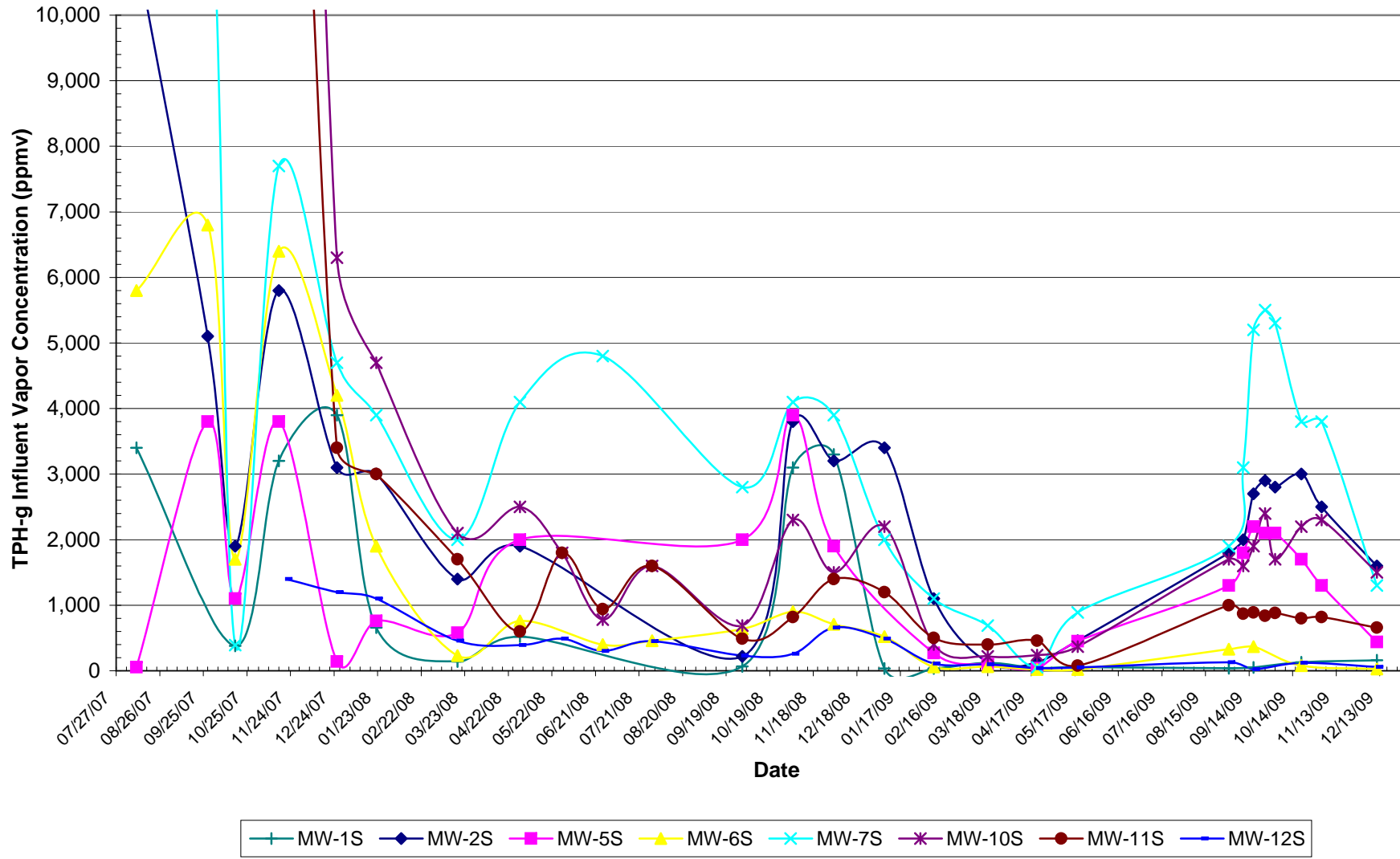
**GROUNDWATER ANALYTICAL DATA SUMMARY (11/23/09)**

245 8TH STREET  
 OAKLAND, CALIFORNIA

**FIGURE 5**  
 PROJECT NO. 116907

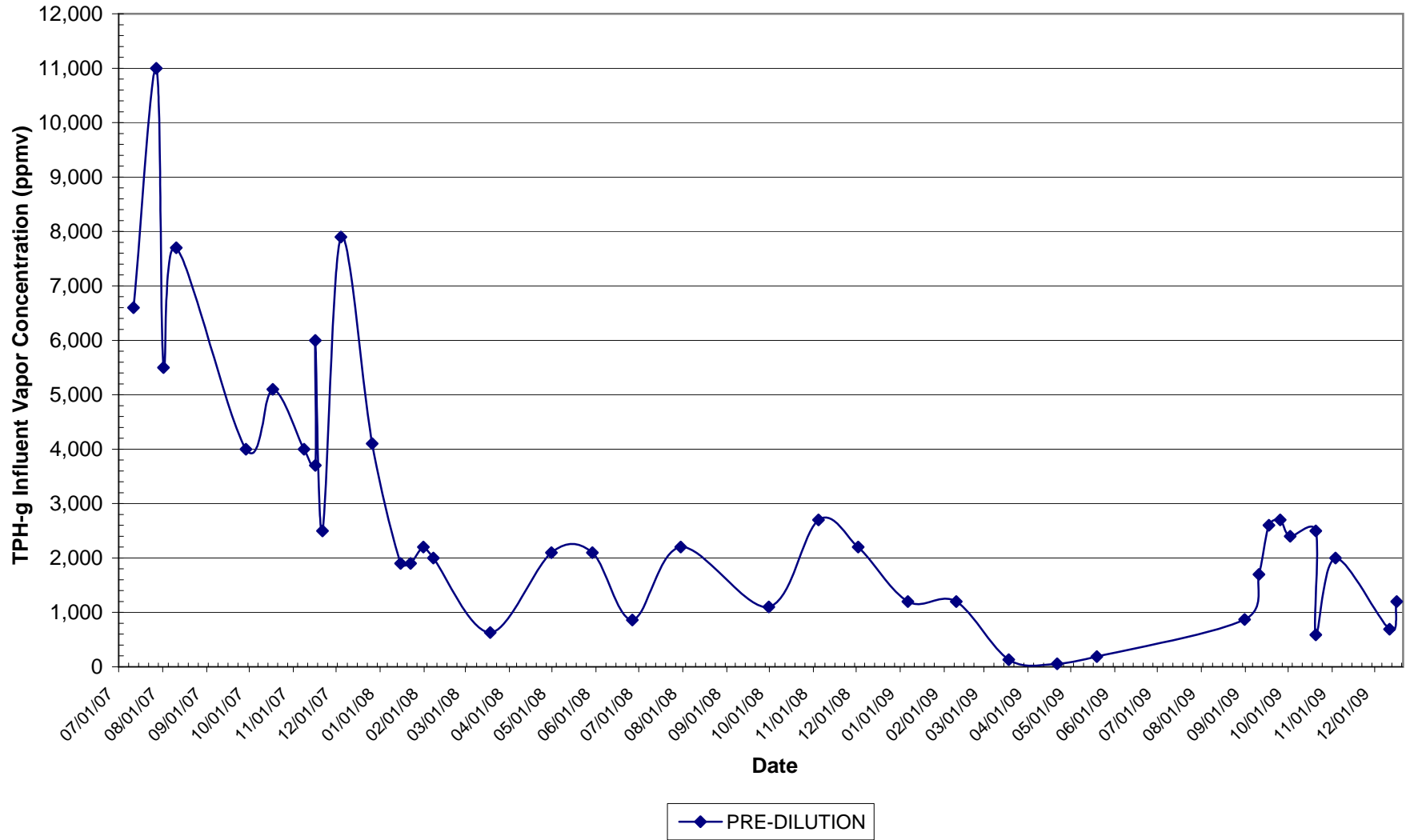
**FIGURE 6: EXTRACTION WELL INFLUENT CONCENTRATIONS OVER TIME**

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



**FIGURE 7: COMBINED SYSTEM INFLUENT CONCENTRATIONS OVER TIME**

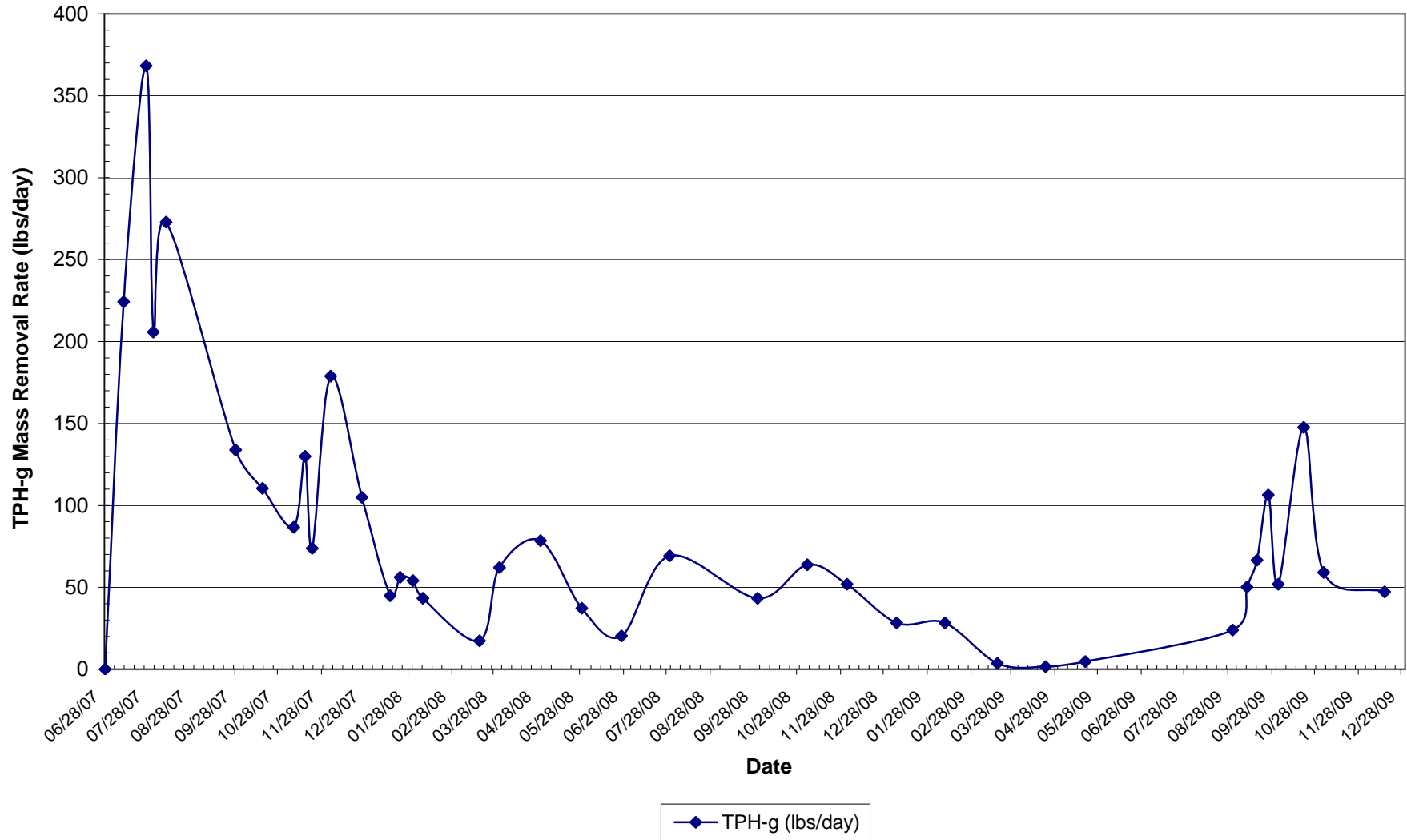
Vic's Auto, 245 8th Street, Oakland, California





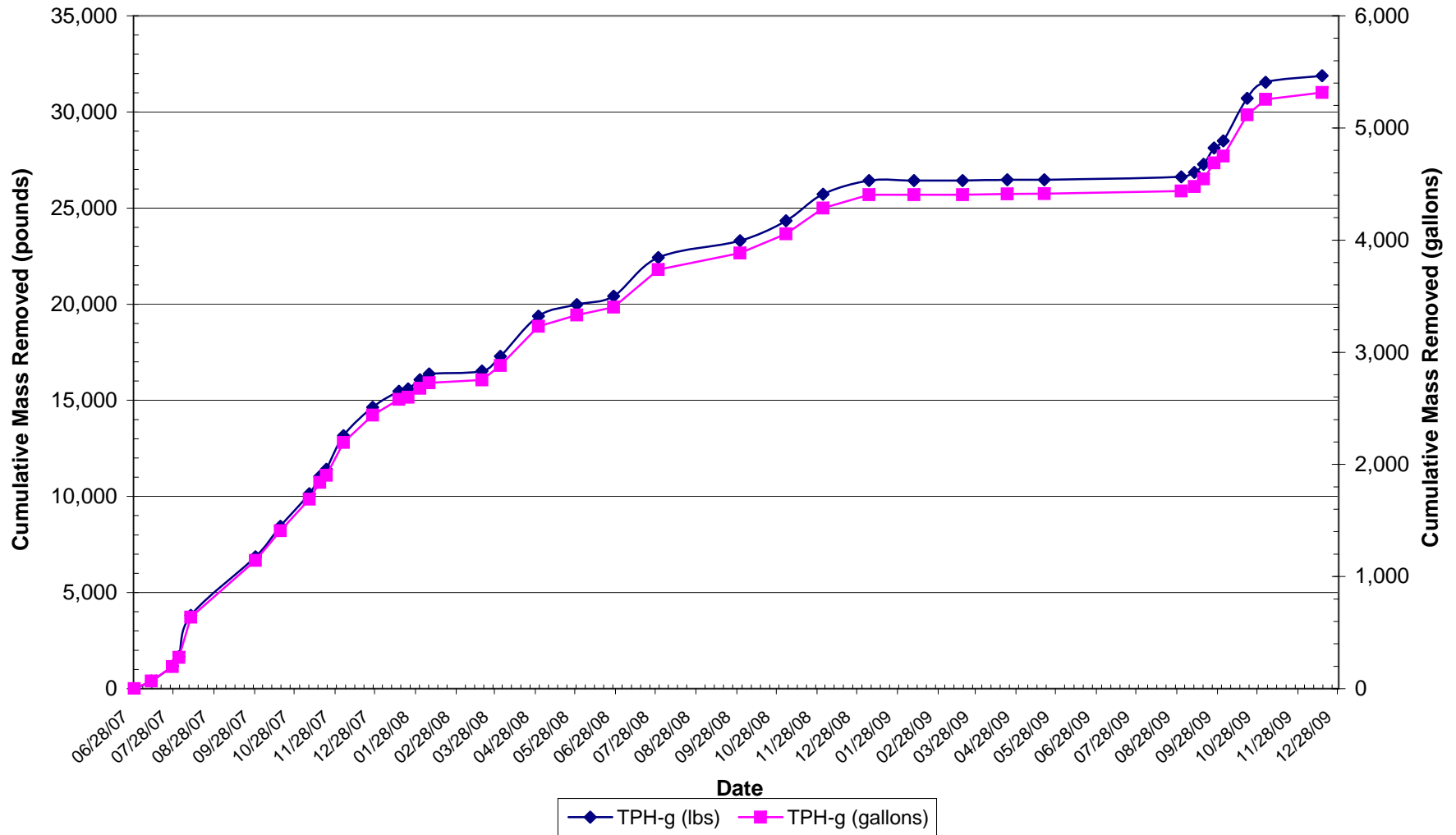
**FIGURE 8: HYDROCARBON MASS REMOVAL RATES BASED ON LAB DATA**

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 <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)	
<b>MW-1</b> (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	12.49	15.01	0.23
	11/03/03	27.73	16.94	10.79	10.79	15.67	1.27
	02/09/04	27.73	14.61	14.61	13.12	14.43	0.18
	05/10/04	27.73		Obstructed	-	-	-
	08/09/04	27.73	15.24	15.24	12.49	15.03	0.21
	11/09/04	27.73	15.95	15.95	11.78	15.71	0.24
	02/03/05	32.55	13.75	13.75	18.80	13.58	0.17
	05/09/05	32.55	13.93	13.93	18.62	13.81	0.12
	08/05/05	32.55	15.40	15.40	17.15	15.39	0.01
	11/09/05	32.55	15.76	15.76	16.79	15.75	0.01
	02/09/06	32.55	13.52	13.52	19.03	13.50	0.02
	05/04/06	32.55	12.47	12.47	20.08	12.46	0.01
	08/04/06	32.55	15.11	15.11	17.44	15.09	0.02
	11/08/06	32.55	16.03	16.03	16.52	16.02	0.01
	02/08/07	32.55	16.51	16.51	16.04	16.48	0.03
	05/29/07	32.55	15.56	15.56	16.99	15.51	0.05
	09/05/07	32.55	16.33	16.33	16.22	-	Sheen
	12/12/07	32.55	17.62	17.62	14.93	-	Sheen
	02/13/08	32.55	15.94	15.94	16.61	-	Sheen
	05/15/08	32.55	16.64	16.64	15.91	-	-
	08/05/08	32.55	16.99	16.99	15.56	-	-
	11/07/08	32.55	17.40	17.40	15.15	-	-
	02/05/09	32.55	16.89	16.89	15.66	-	-
	05/05/09	32.55	15.69	15.69	16.86	-	-
08/21/09	32.55	17.09	17.09	15.46	-	-	
<b>11/23/09</b>		<b>32.55</b>	<b>16.92</b>	<b>15.63</b>	-	-	

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

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

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-2</b> (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	-	-	
<b>11/23/09</b>		<b>33.24</b>	<b>17.94</b>	<b>15.30</b>	-	-

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

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

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-3</b> (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	-	-	
<b>11/23/09</b>		<b>34.25</b>	<b>19.04</b>	<b>15.21</b>	-	-

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

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

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-4</b> (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	-	-	
<b>11/23/09</b>		<b>34.42</b>	<b>19.79</b>	<b>14.63</b>	-	-

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

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

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-5</b> (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	-	-
		<b>11/23/09</b>	<b>33.33</b>	<b>17.39</b>	<b>15.94</b>	-
<b>MW-6</b> (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	-	-
		<b>11/23/09</b>	<b>32.82</b>	<b>16.53</b>	<b>16.29</b>	-



**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

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

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-7</b> (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	-	-
	<b>11/23/09</b>	<b>33.07</b>	<b>17.33</b>	<b>15.74</b>	-	-
<b>MW-8</b> (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	-	-
	<b>11/23/09</b>	<b>31.73</b>	<b>16.72</b>	<b>15.01</b>	-	-
<b>MW-9</b> (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	-	-
	<b>11/23/09</b>	<b>29.02</b>	<b>15.36</b>	<b>13.66</b>	-	-

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

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

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-10</b> (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	-	-	-
	<b>11/23/09</b>	<b>31.17</b>	<b>nm</b>	-	-	-
<b>MW-11</b> (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	-	-	-
	<b>11/23/09</b>	<b>31.78</b>	<b>nm</b>	-	-	-

**TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY**

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

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> Elevation (ft amsl)	Depth to LNAPL (ft)	Apparent LNAPL Thickness (ft)
<b>MW-12</b> (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	-	-	-
	<b>11/23/09</b>	<b>32.05</b>	<b>nm</b>	-	-	-
<b>MW-13</b> (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	-	-
	<b>11/23/09</b>	<b>28.84</b>	<b>15.11</b>	<b>13.73</b>	-	-
<b>MW-14</b> (12-22)	08/21/09	29.53	15.66	13.87	-	-
	<b>11/23/09</b>	<b>29.53</b>	<b>15.53</b>	<b>14.00</b>	-	-
<b>MW-15</b> (12-22)	08/21/09	29.22	16.03	13.19	-	-
	<b>11/23/09</b>	<b>29.22</b>	<b>15.95</b>	<b>13.27</b>	-	-
<b>MW-16</b> (12-22)	08/21/09	28.87	15.61	13.26	-	-
	<b>11/23/09</b>	<b>28.87</b>	<b>15.61</b>	<b>13.26</b>	-	-

## TABLE 1: GROUNDWATER ELEVATION DATA SUMMARY

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

Well ID (screen interval)	Date Collected	Well <sup>1,2,5</sup> Elevation (ft amsl)	Depth to <sup>3</sup> Water (ft)	Groundwater <sup>4</sup> 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 <sup>1</sup> (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)
<b>34</b>	<b>11/23/09</b>	<b>14.74</b>	<b>0.11</b>	<b>SW (0.010)</b>

**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	-		
11/23/09	0.00	63,000	<17*	3,300	9,800	1,500	8,200	-		

**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 <sup>1</sup>	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	-	
<b>11/23/09</b>	<b>0.00</b>	<b>400</b>	<b>23*</b>	<b>20</b>	<b>10</b>	<b>1.0</b>	<b>33</b>	<b>-</b>	

**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 <sup>1</sup>	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	05/29/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	09/05/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	12/12/07	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	02/13/08	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-
	05/15/08	0.00	<50	<5.0	0.99	<0.5	<0.5	0.68	-
	08/05/08	0.00	91	<5.0	2.0	8.0	1.3	8.0	-
	11/07/08	0.00	150	<5.0	0.70	6.5	1.3	26	-
02/05/09	0.00	<50	<5.0	1.7	<0.5	<0.5	<0.5	-	
05/05/09	0.00	<50	<5.0	<0.5	0.76	<0.5	<0.5	-	
08/21/09	0.00	<50	<5.0	<0.5	<0.5	<0.5	<0.5	-	
<b>11/23/09</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>0.90</b>	<b>&lt;0.5</b>	<b>0.59</b>	<b>1.2</b>	-



**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	-	
11/23/09	0.00	<50	<5.0	<5.0	2.6	<0.5	1.5	2.3	-

**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	-
	<b>11/23/09</b>	<b>0.00</b>	<b>1,700</b>	<b>&lt;0.5*</b>	<b>47</b>	<b>100</b>	<b>29</b>	<b>240</b>	-
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 <sup>2</sup>	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	-
		<b>11/23/09</b>	<b>0.00</b>	<b>28,000</b>	<b>&lt;10*</b>	<b>270</b>	<b>710</b>	<b>1,200</b>	<b>5,500</b>

**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-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	-
<b>11/23/09</b>	<b>0.00</b>	<b>17,000</b>	<b>32*</b>	<b>430</b>	<b>1,600</b>	<b>730</b>	<b>2,800</b>	-	
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	-
	<b>11/23/09</b>	<b>0.00</b>	<b>62</b>	<b>&lt;5.0</b>	<b>5.3</b>	<b>2.0</b>	<b>2.4</b>	<b>3.3</b>	-
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 <sup>2</sup>	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	-
	<b>11/23/09</b>	<b>0.00</b>	<b>39,000</b>	<b>750</b>	<b>11,000</b>	<b>390</b>	<b>1,800</b>	<b>2,400</b>	-

**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)
<b>MW-10</b> (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 <sup>3</sup>	-	-	-	-	-	-	-	-
	02/05/09	-	-	-	-	-	-	-	-
	05/05/09	-	-	-	-	-	-	-	-
	08/21/09	-	-	-	-	-	-	-	-
	<b>11/23/09</b>	-	-	-	-	-	-	-	-
<b>MW-11</b> (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 <sup>3</sup>	-	-	-	-	-	-	-	-
	02/05/09	-	-	-	-	-	-	-	-
	05/05/09	-	-	-	-	-	-	-	-
	08/21/09	-	-	-	-	-	-	-	-
<b>11/23/09</b>	-	-	-	-	-	-	-	-	

**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)	
<b>MW-12</b> (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 <sup>3</sup>	-	-	-	-	-	-	-	-	-
	02/05/09	-	-	-	-	-	-	-	-	-
	05/05/09	-	-	-	-	-	-	-	-	-
	08/21/09	-	-	-	-	-	-	-	-	-
<b>11/23/09</b>	-	-	-	-	-	-	-	-	-	
<b>MW-13</b> (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	-	
	<b>11/23/09</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;5.0</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	-	
<b>MW-14</b> (12 - 22)	08/21/09	0.00	3,000	<1.0*	11	41	92	40	-	
	<b>11/23/09</b>	<b>0.00</b>	<b>1,600</b>	<b>&lt;5.0</b>	<b>6.1</b>	<b>16</b>	<b>33</b>	<b>4.9</b>	-	
<b>MW-15</b> (12 - 22)	08/21/09	0.00	190	23	23	15	6.6	25	-	
	<b>11/23/09</b>	<b>0.00</b>	<b>280</b>	<b>19</b>	<b>65</b>	<b>4.6</b>	<b>20</b>	<b>28</b>	-	
<b>MW-16</b> (12 - 22)	08/21/09	0.00	860	20	80	110	26	130	-	
	<b>11/23/09</b>	<b>0.00</b>	<b>870</b>	<b>31</b>	<b>280</b>	<b>13</b>	<b>46</b>	<b>63</b>	-	

**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 <sub>1</sub>	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 <sub>1</sub>	05/17/07	5	-	<3.6	<3.2	<3.8	<4.4	<4.4	<7.6	14	<9.9
GP-1-5	12/12/07	5	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-1-5	02/14/08	5	<1,800	<48	<6.5	<7.7	<8.8	<27	<96	<14	<10,000
GP-1-5	05/08/08	5	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-1-5	08/15/08	5	<1800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-1-5 <sup>2</sup>	11/07/08	5	-	-	-	-	-	-	-	-	-
GP-1-10	08/04/06	10	493	<4.1	<3.6	<4.3	<5.0	<5.0	<8.6	20	<11
GP-1-10	11/08/06	10	950	<4.2	<3.7	<4.4	<5.0	<5.0	<8.8	<7.9	<11
GP-1-10	03/06/07*	10	-	-	-	-	-	-	-	-	-
GP-1-10	05/17/07^	10	-	-	-	-	-	-	-	-	-
GP-1-10	12/12/07	10	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-1-10	02/14/08	10	<1,800	<48	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-1-10	05/08/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-1-10	08/15/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-1-10 <sup>2</sup>	11/07/08	10	-	-	-	-	-	-	-	-	-
GP-2-5	08/04/06	5	493	<4.4	<3.9	6.9	<5.4	10	<9.3	600	<12
GP-2-5	11/08/06	5	1,100	<4.0	<3.6	<4.2	<4.9	<4.9	<8.4	240	<11
GP-2-5	03/06/07*	5	-	-	-	-	-	-	-	-	-
GP-2-5	05/17/07	5	582	<4.0	<3.5	<4.1	<4.8	<4.8	<8.3	420	<11
GP-2-5	12/12/07	5	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-2-5	02/14/08	5	<1,800	<48	<6.5	<7.7	<8.8	<27	<14	<14	<10,000
GP-2-5	05/08/08	5	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-2-5	08/15/08	5	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	39	<10,000
GP-2-5 <sup>2</sup>	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	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-2-10	02/14/08	10	<1,800	<48	<6.5	<7.7	<8.8	<27	-	<14	<10,000
GP-2-10	05/08/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	<14	<25
GP-2-10	08/15/08	10	<1,800	<7.3	<6.5	<7.7	<8.8	<27	-	48	<10,000
GP-2-10 <sup>2</sup>	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 <sup>3</sup> )	MTBE (µg/m <sup>3</sup> )	Benzene (µg/m <sup>3</sup> )	Toluene (µg/m <sup>3</sup> )	Ethylbenzene (µg/m <sup>3</sup> )	Xylenes (µg/m <sup>3</sup> )	Ethanol (µg/m <sup>3</sup> )	PCE (µg/m <sup>3</sup> )	2-propanol (µg/m <sup>3</sup> )
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 <sub>f</sub>	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	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-3-5	02/14/08	5	<1,800	<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 <sup>1,2</sup>	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	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	-
GP-3-10	02/14/08	10	<1,800	<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 <sup>1,2</sup>	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 <sub>1</sub>	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 <sub>f</sub>	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	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-4-5D <sub>f</sub>	12/12/07	5	<1,500	<48	<6.5	<7.7	<8.8	<27	<96	<14	<25
GP-4-5	02/14/08	5	<1,800	<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 <sup>1,2</sup>	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 <sub>f</sub>	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 <sub>1</sub>	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 <sup>1,2</sup>	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<sub>f</sub> = after the probe/sample ID indicates a duplicate sample collected in the field

D<sub>l</sub> = 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)	Ethylbenzene (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		OFF	50%	21	0	0.0	20.9	0.0	380	ND<14	26	58	5.7	46
	11/16/07		50%	50%	21	2,800	0.5	20.7	0.5	3,200	ND<14	69	220	20	110
	12/26/07	4	50%	50%	18	3,000	1.5	20.7	0.4	3,900	ND<27	79	210	41	210
	01/22/08		50%	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		OFF	OFF	14.5	0	xx	20.9	0.0	140	ND<0.68	1.3	6.9	0.78	6.9
	04/30/08	7	OFF	OFF	18	50	0.0	20.9	0.1	520	3.3	13	38	6.7	53
	05/29/08		OFF	OFF	19.5	-	-	-	-	-	-	-	-	-	-
	06/26/08		OFF	OFF	23	-	-	-	-	-	-	-	-	-	-
	07/30/08		OFF	OFF	17	310	0.0	18.3	1.1	-	-	-	-	-	-
	09/30/08	OFF	100%	16.5	5	0.0	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	0.0	20.9	0.0	35	ND<0.68	3.6	5.6	0.22	1.8	
	02/09/09	100%	100%	12	15	0.0	20.9	0.0	36	ND<0.68	4.7	6.7	0.35	3.1	
	03/18/09	100%	100%	10	10	0.0	20.9	0.3	120	ND<1.0	1.8	9.6	0.69	4.2	
	04/21/09	100%	100%	11	10	0.0	20.4	0.2	42	ND<0.68	0.56	2.3	0.29	1.9	
	05/19/09	100%	100%	11.5	35	0.0	19.8	0.7	54	ND<0.68	1.1	6.2	0.79	4.0	
	08/31/09	100%	OFF	12	540	0.0	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	OFF	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	-	-	-	-	-	-	-	-	-	-		
10/20/09	OFF	OFF	12	340	0.0	20.9	0.1	130	ND<2.7	5.2	15	1.8	13		
11/03/09	OFF	OFF	-	-	-	-	-	-	-	-	-	-	-		
12/11/09	OFF	OFF	13	250	0.0	20.9	0.0	160	ND<1.4	5.1	12	1.5	14		

**TABLE 6: HDPE 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-2S	08/10/07		100%	100%	21	-	-	-	-	11,000	ND<110	280	770	81	360
	09/28/07	1	100%	100%	20	5,900	2.5	20.6	0.4	5,100	ND<35	110	310	46	260
	10/17/07		100%	100%	21	1,450	1.0	20.9	0.1	1,900	ND<20	59	120	12	73
	11/16/07		100%	100%	21	4,600	2.5	20.7	0.5	5,800	ND<27	120	340	40	200
	12/26/07		100%	100%	18	2,600	1.5	20.9	0.4	3,100	ND<27	84	230	37	190
	01/22/08		100%	100%	18	1,000	0.5	17.7	0.6	3,000	ND<14	61	190	24	180
	02/07/08	5	100%	100%	21.5	1,000	0.5	20.9	0.2	-	-	-	-	-	-
	03/18/08		100%	100%	14.5	100	xx	20.9	0.6	1,400	2.3	17	51	13	81
	04/30/08		100%	OFF	18	190	0.0	20.7	0.5	1,900	ND<6.8	22	75	16	110
	05/29/08		OFF	OFF	19.5	-	-	-	-	-	-	-	-	-	-
	06/26/08		OFF	OFF	23	-	-	-	-	-	-	-	-	-	-
	07/30/08	7	OFF	OFF	17	100	0.0	20.3	0.6	-	-	-	-	-	-
	09/30/08		OFF	100%	16.5	160	0.0	16.7	1.8	220	ND<0.68	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	0.0	16.4	1.4	1,100	ND<10	25	53	4.9	49
	03/18/09		100%	100%	10	30	0.0	20.9	0.0	130	ND<0.68	1.1	5.6	0.43	2.6
	04/21/09		100%	100%	11	15	0.0	17.1	1.4	130	ND<0.68	1.3	3.9	0.36	4.9
	05/19/09		100%	100%	11.5	190	0.0	12.6	3.5	460	ND<2.0	4.3	13	2.0	19
	08/31/09		100%	100%	12	980	0.0	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
	<b>10/02/09</b>			<b>100%</b>	<b>100%</b>	<b>14</b>	<b>2,800</b>	<b>0.5</b>	<b>20.2</b>	<b>1.1</b>	<b>2,800</b>	<b>ND&lt;10</b>	<b>63</b>	<b>130</b>	<b>8.5</b>
<b>10/20/09</b>			<b>100%</b>	<b>100%</b>	<b>13</b>	<b>2,900</b>	<b>1.0</b>	<b>19.8</b>	<b>1.3</b>	<b>3,000</b>	<b>ND&lt;35</b>	<b>85</b>	<b>170</b>	<b>9.7</b>	<b>82</b>
<b>11/03/09</b>			<b>100%</b>	<b>100%</b>	<b>14</b>	<b>2,450</b>	<b>0.5</b>	<b>20.2</b>	<b>1.0</b>	<b>2,500</b>	<b>ND&lt;14</b>	<b>68</b>	<b>130</b>	<b>8.6</b>	<b>69</b>
<b>12/11/09</b>			<b>100%</b>	<b>100%</b>	<b>13</b>	<b>1,400</b>	<b>0.0</b>	<b>9.2</b>	<b>4.4</b>	<b>1,600</b>	<b>ND&lt;10</b>	<b>39</b>	<b>81</b>	<b>6.6</b>	<b>52</b>

**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-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		100%	OFF	18	200	0.0	20.9	0.0	140	ND<0.68	0.45	3.7	1.5	14
	01/22/08	4	OFF	OFF	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		OFF	OFF	14.5	0	xx	19.9	0.3	580	ND<2.7	3.0	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		50%	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
	<b>10/02/09</b>		<b>100%</b>	<b>100%</b>	<b>14</b>	<b>1,300</b>	<b>0.0</b>	<b>19.2</b>	<b>1.3</b>	<b>2,100</b>	<b>ND&lt;2.7</b>	<b>9.4</b>	<b>35</b>	<b>4.9</b>	<b>100</b>
	<b>10/20/09</b>		<b>100%</b>	<b>100%</b>	<b>13</b>	<b>1,150</b>	<b>0.0</b>	<b>19.4</b>	<b>1.1</b>	<b>1,700</b>	<b>ND&lt;5.0</b>	<b>6.3</b>	<b>28</b>	<b>2.9</b>	<b>88</b>
<b>11/03/09</b>	<b>100%</b>		<b>100%</b>	<b>14</b>	<b>550</b>	<b>0.0</b>	<b>19.5</b>	<b>1.0</b>	<b>1,300</b>	<b>ND&lt;2.7</b>	<b>4.7</b>	<b>24</b>	<b>2.0</b>	<b>82</b>	
<b>12/11/09</b>	<b>100%</b>		<b>100%</b>	<b>13</b>	<b>350</b>	<b>0.0</b>	<b>18.2</b>	<b>1.0</b>	<b>440</b>	<b>ND&lt;2.7</b>	<b>2.6</b>	<b>9.8</b>	<b>1.8</b>	<b>26</b>	

**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-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%	100%	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		100%	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%	OFF	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	2.0	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		100%	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%	OFF	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	OFF	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	-	-	-	-	-	-	-	-	-	-		
	10/20/09	OFF	OFF	12	80	0.0	20.9	0.0	78	ND<0.68	0.69	2.7	1.7	9.5		
11/03/09	OFF	OFF	-	-	-	-	-	-	-	-	-	-	-			
12/11/09	OFF	OFF	13	50	0.0	20.9	0.0	29	ND<0.68	0.20	1.1	0.30	3.1			

**TABLE 6: HDPE 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-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	6.0	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		50%	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%	OFF	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	4.0	110	
	07/30/08	7	100%	100%	17	2,750	0.5	18.3	1.7	-	-	-	-	-	
	09/30/08		100%	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	
	<b>10/02/09</b>	<b>100%</b>	<b>100%</b>	<b>14</b>	<b>8,050</b>	<b>2.0</b>	<b>18.8</b>	<b>1.6</b>	<b>5,300</b>	<b>ND&lt;35</b>	<b>100</b>	<b>160</b>	<b>11</b>	<b>210</b>	
	<b>10/20/09</b>	<b>100%</b>	<b>100%</b>	<b>13</b>	<b>5,450</b>	<b>1.5</b>	<b>18.8</b>	<b>1.7</b>	<b>3,800</b>	<b>ND&lt;40</b>	<b>63</b>	<b>110</b>	<b>6.9</b>	<b>120</b>	
<b>11/03/09</b>	<b>100%</b>	<b>100%</b>	<b>14</b>	<b>3,900</b>	<b>1.0</b>	<b>19.0</b>	<b>1.5</b>	<b>3,800</b>	<b>ND&lt;20</b>	<b>42</b>	<b>87</b>	<b>6.3</b>	<b>140</b>		
<b>12/11/09</b>	<b>100%</b>	<b>100%</b>	<b>13</b>	<b>1,250</b>	<b>0.0</b>	<b>9.5</b>	<b>7.0</b>	<b>1,300</b>	<b>ND&lt;5.0</b>	<b>20</b>	<b>50</b>	<b>11</b>	<b>63</b>		



**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			
<b>10/02/09</b>	<b>100%</b>	<b>100%</b>	<b>14</b>	<b>2,150</b>	<b>0.0</b>	<b>19.6</b>	<b>1.1</b>	<b>1,700</b>	<b>ND&lt;20</b>	<b>38</b>	<b>79</b>	<b>6.6</b>	<b>76</b>			
<b>10/20/09</b>	<b>100%</b>	<b>100%</b>	<b>13</b>	<b>2,000</b>	<b>0.5</b>	<b>19.4</b>	<b>1.3</b>	<b>2,200</b>	<b>ND&lt;20</b>	<b>47</b>	<b>97</b>	<b>7.2</b>	<b>65</b>			
<b>11/03/09</b>	<b>100%</b>	<b>100%</b>	<b>14</b>	<b>1,400</b>	<b>0.0</b>	<b>19.3</b>	<b>1.3</b>	<b>2,300</b>	<b>ND&lt;10</b>	<b>39</b>	<b>85</b>	<b>6.5</b>	<b>72</b>			
<b>12/11/09</b>	<b>100%</b>	<b>100%</b>	<b>13</b>	<b>1,250</b>	<b>0.0</b>	<b>7.1</b>	<b>4.2</b>	<b>1,500</b>	<b>ND&lt;14</b>	<b>24</b>	<b>40</b>	<b>3.0</b>	<b>37</b>			

**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-11S	11/21/07	7	100%	50%	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			
<b>10/02/09</b>	<b>100%</b>	<b>100%</b>	<b>14</b>	<b>820</b>	<b>0.0</b>	<b>20.6</b>	<b>0.5</b>	<b>880</b>	<b>ND&lt;15</b>	<b>22</b>	<b>40</b>	<b>3.9</b>	<b>55</b>			
<b>10/20/09</b>	<b>100%</b>	<b>100%</b>	<b>13</b>	<b>750</b>	<b>0.0</b>	<b>20.4</b>	<b>0.6</b>	<b>800</b>	<b>ND&lt;15</b>	<b>20</b>	<b>32</b>	<b>3.4</b>	<b>39</b>			
<b>11/03/09</b>	<b>100%</b>	<b>100%</b>	<b>14</b>	<b>400</b>	<b>0.0</b>	<b>20.7</b>	<b>0.4</b>	<b>820</b>	<b>ND&lt;10</b>	<b>16</b>	<b>30</b>	<b>2.6</b>	<b>42</b>			
<b>12/11/09</b>	<b>100%</b>	<b>100%</b>	<b>13</b>	<b>350</b>	<b>0.0</b>	<b>13.0</b>	<b>2.5</b>	<b>660</b>	<b>ND&lt;6.8</b>	<b>19</b>	<b>19</b>	<b>2.2</b>	<b>28</b>			

**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-12S	11/21/07		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	7	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		OFF	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	-	-	-	-	-	-	-	-	-	-	
<b>10/02/09</b>		<b>OFF</b>	<b>OFF</b>	<b>14</b>	-	-	-	-	-	-	-	-	-	-	
<b>10/20/09</b>		<b>OFF</b>	<b>OFF</b>	<b>12</b>	<b>20</b>	<b>0.0</b>	<b>20.9</b>	<b>0.2</b>	<b>120</b>	<b>ND&lt;1.4</b>	<b>4.2</b>	<b>7.9</b>	<b>0.70</b>	<b>8.6</b>	
<b>11/03/09</b>		<b>OFF</b>	<b>OFF</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>12/11/09</b>		<b>OFF</b>	<b>OFF</b>	<b>13</b>	<b>35</b>	<b>0.0</b>	<b>17.8</b>	<b>0.6</b>	<b>60</b>	<b>ND&lt;1.0</b>	<b>2.6</b>	<b>4.4</b>	<b>0.45</b>	<b>5.6</b>	

**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)	
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	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	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	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	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	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	0.0	-	-	-	-	-	-
	11/04/08		100%	100%	-	0	0.0	20.9	0.1	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	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	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	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	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	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	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	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	0.0	-	-	-	-	-	-
09/17/09	100%	100%	-	0	0.0	20.9	0.0	0.0	-	-	-	-	-	-		
09/25/09	100%	100%	-	0	0.0	20.9	0.0	0.0	-	-	-	-	-	-		
<b>10/02/09</b>	<b>100%</b>	<b>100%</b>	-	<b>0</b>	<b>0.0</b>	<b>20.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>7.3</b>	<b>ND&lt;1.0</b>	<b>0.27</b>	<b>0.57</b>	<b>ND&lt;0.057</b>	<b>0.93</b>	
<b>10/20/09</b>	<b>100%</b>	<b>100%</b>	-	-	-	-	-	-	-	-	-	-	-	-		
<b>11/03/09</b>	<b>100%</b>	<b>100%</b>	-	<b>0</b>	<b>0.0</b>	<b>20.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>ND&lt;7.0</b>	<b>ND&lt;0.68</b>	<b>ND&lt;0.077</b>	<b>ND&lt;0.065</b>	<b>ND&lt;0.057</b>	<b>ND&lt;0.057</b>	
<b>12/11/09</b>	<b>100%</b>	<b>100%</b>	-	-	-	-	-	-	-	-	-	-	-	-		

**TABLE 6: HDPE 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)
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	3.0	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	
10/20/09	10	-	-	13	2,200	0.5	19.6	1.2	2,500	ND<20	38	80	6.7	110	
10/20/09	11	-	-	12	930	0.0	20.9	0.3	590	ND<5.0	7.7	19	2.0	30	
11/03/09		-	-	14	1,450	0.5	20.9	1.0	2,000	ND<10	27	58	4.5	71	
12/11/09	12	-	-	13	380	0.0	14.7	2.2	690	ND<2.7	10	20	2.0	25	
12/11/09	13	-	-	13	1,050	0.0	18.9	1.5	-	-	-	-	-	-	
12/16/09	14	-	-	13	1,200	0.0	20.1	1.2	1,200	ND<14	35	72	5.1	52	

**TABLE 6: HDPE 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		-	-	-	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	3.0	20	
	04/30/08		-	-	-	55	0.0	20.9	0.2	700	ND<2.0	7.6	23	5.0	42	
	05/29/08		-	-	-	630	0.0	20.7	0.2	500	ND<3.5	5.4	12	4.1	29	
	06/26/08		-	-	-	55	0.0	20.9	0.2	620	ND<10	7.8	25	5.4	45	
	07/30/08	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	09/30/08		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11/04/08		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/02/08		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	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		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10/20/09		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11/03/09		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12/11/09		-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**TABLE 6: HDPE 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)		
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	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	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	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	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	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	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	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	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	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	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	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	ND<0.057		
10/20/09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11/03/09	-	-	-	0	0.0	17.7	2.4	ND<7.0	ND<0.68	ND<0.077	ND<0.065	ND<0.057	ND<0.057	ND<0.057	ND<0.057		
12/11/09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>DL</b>	-	-	-	-	-	<b>5.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>7.0</b>	<b>0.68</b>	<b>0.077</b>	<b>0.065</b>	<b>0.057</b>	<b>0.057</b>		

**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; well turned off.
- 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) Field screened and sampled with MW-1S, MW-6S, and MW-12S OFF.
- 11) Field screened and sampled with MW-1S, MW-6S, and MW-12S ON; note the slight loss of applied vacuum (~1 in-Hg) and decrease in the concentration of hydrocarbons.
- 12) Field screened and sampled with MW-1S, MW-6S, and MW-12S ON.
- 13) Field screened and sampled with MW-1S, MW-6S, and MW-12S OFF; note the significant increase in the concentration of hydrocarbons.
- 14) The 1-Liter Tedlar® bag was damaged during transportation to the laboratory on 12/11/09; therefore, the samples was recollected on 12/16/09.



**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)	Ethyl-benzene (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	
	<b>10/20/09</b>				<b>7,500</b>	-	<b>270</b>	<b>650</b>	<b>60</b>	<b>1,600</b>
	<b>12/11/09</b>				<b>4,800</b>	-	<b>140</b>	<b>350</b>	<b>60</b>	<b>770</b>

**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)	Ethyl-benzene (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	
	<b>10/20/09</b>				<b>180</b>	-	<b>0.52</b>	<b>0.78</b>	<b>ND&lt;0.5</b>	<b>8</b>
	<b>12/11/09</b>				<b>85</b>	-	<b>1.1</b>	<b>2.8</b>	<b>0.59</b>	<b>8.3</b>

**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)	Ethyl-benzene (µg/L)	Xylenes (µg/L)
<b>POST-C1</b>	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
<b>EFF</b>	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<5.0	ND<50	-	ND<0.5	ND<0.5	ND<0.5	ND<0.5	
10/20/09	-	-	<b>ND&lt;50</b>	-	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	
12/11/09	-	-	<b>ND&lt;50</b>	-	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	
<b>DL</b>	-	-	<b>5.0</b>	<b>50</b>	<b>5.0</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>

**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 10/05/07 and started up on 10/09/07

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

**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 (%)	
<b>GP-1-5'</b>	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		-	-	-	-	-	-	
	<b>10/02/09</b>			<b>0.10</b>	<b>1.70</b>	<b>0.0</b>	<b>0.0</b>	<b>19.9</b>	<b>0.5</b>
	<b>11/03/09</b>			<b>0.00</b>	<b>1.50</b>	<b>0.0</b>	<b>0.0</b>	<b>19.7</b>	<b>0.7</b>
<b>12/11/09</b>			<b>0.00</b>	<b>1.80</b>	<b>0.0</b>	<b>0.0</b>	<b>18.3</b>	<b>1.3</b>	
<b>GP-1-10'</b>	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		-	-	-	-	-	-	
	<b>10/02/09</b>	<b>1</b>	-	-	-	-	-	-	
	<b>11/03/09</b>	<b>1</b>	-	-	-	-	-	-	
<b>12/11/09</b>	<b>1</b>	-	-	-	-	-	-		

**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		-	-	-	-	-	-
	<b>10/02/09</b>		<b>0.05</b>	<b>2.2</b>	<b>0.0</b>	<b>0.0</b>	<b>20.7</b>	<b>0.1</b>
	<b>11/03/09</b>		<b>0.00</b>	<b>2.0</b>	<b>0.0</b>	<b>0.0</b>	<b>20.5</b>	<b>0.0</b>
	<b>12/11/09</b>	1	<b>0.00</b>	-	-	-	-	-
	GP-2-10'	05/17/07	4	0.00	-	0.18	0.0	18.0
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			-	-	-	-	-	-
<b>10/02/09</b>		1	<b>0.30</b>	-	-	-	-	-
<b>11/03/09</b>		1	<b>0.00</b>	-	-	-	-	-
<b>12/11/09</b>		1	<b>0.00</b>	-	-	-	-	-

**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	6,7	0.00	1.00	0.0	0.0	20.9	0.0	
	11/11/08		-	-	-	-	-	-	
	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		6,7	0.00	50.0	-	-	20.9	0.0	
11/11/08			-	-	-	-	-	-	

**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	-	-	-	-	-	-
<b>DL</b>		<b>-</b>	<b>-</b>	<b>varies</b>	<b>varies</b>	<b>5.0</b>	<b>0.1</b>	<b>0.1</b>

**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 approximately 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, approximately 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	4.5	8.5	21.0	10.0	13.5	21.0
10/20/09	5.0	10.0	25.0	8.0	12.0	20.0	n/a	12.0	22.0	5.0	10.0	21.0	10.0	12.0	21.0
11/03/09	OFF	OFF	25.0	9.0	12.0	20.0	n/a	12.0	22.0	OFF	OFF	21.0	11.0	12.0	21.0
12/11/09	OFF	OFF	25.0	8.0	12.0	20.0	n/a	11.0	22.0	OFF	OFF	21.0	10.0	12.0	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						
<b>10/02/09</b>	<b>n/a</b>	<b>13.5</b>	<b>22.0</b>	<b>n/a</b>	<b>10.0</b>	<b>22.0</b>	<b>n/a</b>	<b>10.0</b>	<b>22.0</b>						
<b>10/20/09</b>	<b>n/a</b>	<b>12.0</b>	<b>22.0</b>	<b>n/a</b>	<b>10.0</b>	<b>22.0</b>	<b>n/a</b>	<b>10.0</b>	<b>22.0</b>						
<b>11/03/09</b>	<b>n/a</b>	<b>12.0</b>	<b>22.0</b>	<b>n/a</b>	<b>11.0</b>	<b>22.0</b>	<b>n/a</b>	<b>OFF</b>	<b>22.0</b>						
<b>12/11/09</b>	<b>n/a</b>	<b>12.0</b>	<b>22.0</b>	<b>n/a</b>	<b>11.0</b>	<b>22.0</b>	<b>n/a</b>	<b>OFF</b>	<b>22.0</b>						

**NOTES:**

in-Hg = inches of mercury (gauge pressure)

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

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

**TABLE 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

**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)
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	2	0%	60	12	1,200	59	1,200	28	26,427	4,405
03/18/09		37	888	8,320	1	20	2%	60	10	1,400	69	130	4	26,430	4,405
04/21/09		34	816	8,975	27	655	80%	60	11	1,400	69	58	2	26,474	4,412
05/19/09		28	672	9,001	1	26	4%	60	10	1,250	61	190	5	26,479	4,413
08/31/09		104	2,496	9,149	6	148	6%	60	12	1,400	69	870	24	26,626	4,438
09/10/09		10	240	9,260	5	111	46%	60	15	1,500	74	1,700	50	26,859	4,476
09/17/09		7	168	9,411	6	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
10/20/09		18	432	10,131	15	360	83%	60	13	3,000	147	2,500	148	30,706	5,118
11/03/09		14	336	10,468	14	337	100%	60	14	1,500	74	2,000	59	31,536	5,256
12/16/09		43	1,032	10,648	7	180	17%	60	14	2,000	98	1,200	47	31,890	5,315
<b>AVG</b>	-	-	-	-	-	-	<b>75%</b>	<b>60</b>	<b>14</b>	<b>1,900</b>	<b>93</b>	<b>2,025</b>	<b>76</b>	-	-

**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 ft<sup>2</sup>

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 of 2008

10)

**MASS REMOVAL RATE (MRR) ESTIMATE ASSUMPTIONS:**

MRR Estimate = (20,000\*10<sup>-6</sup>)\*(50scfm)\*(1440min/day)\*(28.32L/ft<sup>3</sup>)\*(1mol/22.4L)\*(100g/mol)\*(1lb/454g)

MRR Estimate assumes negligible change in air density, constant concentration and average molecular weight

AVG = average values in red for the current reporting period

1 mole occupies 22.4 Liters at STP

STP is 21°C and 1 atm

MW<sub>gas</sub> = 100 grams/mole (weathered gasoline)

1 day = 1440 minutes

1ft<sup>3</sup> = 28.38 liters

1 lb = 454 grams

1 gallon gas ~ 6 pounds

**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	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
10/17/07	5	19	456	1,239	14	343	75%	1,409	1,365	2,400	118	1,800	3.5	99.81%	85	10,201	1,700	193,992,681
11/08/07		22	528	1,709	20	470	89%	1,412	1,342	2,000	98	2,000	21	98.95%	79	11,742	1,957	223,297,250
11/16/07		8	192	1,874	7	166	86%	1,408	1,347	2,000	98	3,600	3.5	99.90%	142	12,721	2,120	241,905,549
11/21/07	6,7	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	8,9	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	10	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	10	29	696	4,591	27	639	92%	709	792	2,700	133	700	3.5	99.50%	37	18,122	3,020	344,619,107
05/29/08		29	696	4,978	16	387	56%	703	769	1,800	88	500	3.5	99.30%	18	18,408	3,068	350,052,986
06/26/08		28	672	5,489	21	511	76%	802	841	2,500	123	620	3.5	99.44%	31	19,057	3,176	362,409,874
07/30/08	10	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	-	-	-	-	-

**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)
01/06/09		35	840	8,298	25	601	72%	704	817	3,100	152	-	26	-	-	-	-	-
02/09/09		34	816	8,300	0	2	0%	701	819	3,100	152	-	3.5	-	-	-	-	-
03/18/09		37	888	8,320	1	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	26	4%	705	797	2,800	137	-	3.5	-	-	-	-	-
08/31/09		104	2496	9,149	6	148	6%	702	832	3,100	152	-	3.5	-	-	-	-	-
09/10/09		10	240	9,260	5	111	46%	705	805	3,100	152	-	-	-	-	-	-	-
09/17/09		7	168	9,411	6	151	90%	707	807	2,500	123	-	-	-	-	-	-	-
09/25/09		8	192	9,602	8	192	100%	706	825	3,200	157	-	-	-	-	-	-	-
10/02/09		7	168	9,771	7	169	100%	706	777	2,800	137	-	3.5	-	-	-	-	-
10/20/09		18	432	10,131	15	360	83%	705	795	3,300	162	-	-	-	-	-	-	-
11/03/09		14	336	10,468	14	337	100%	704	803	3,100	152	-	3.5	-	-	-	-	-
12/16/09		43	1032	10,648	8	180	17%	718	781	3,200	157	-	-	-	-	-	-	-
<b>AVG</b>	-	-	-	-	-	-	<b>75%</b>	<b>708</b>	<b>789</b>	<b>3,100</b>	<b>152</b>	-	<b>3.5</b>	-	-	-	-	-

**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 ft<sup>2</sup>

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

**MASS REMOVAL RATE (MRR) ESTIMATE ASSUMPTIONS:**

MRR Estimate = (20,000\*10<sup>-6</sup>)\*(50scfm)\*(1440min/day)\*(28.32L/ft<sup>3</sup>)\*(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

MWgas = 100 grams/mole (weathered gasoline)

1 day = 1440 minutes

1 ft<sup>3</sup> = 28.32 liters

1 lb = 454 grams

1 gallon gas ~ 6 pounds

1 gallon gas ~ 114,100 btu

AVG = average values in red for the current reporting period

**TABLE 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	7	8,320	1	30	17.5	1,200	59	ND<7.0	2,000	120	94.0%
04/21/09		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	-	-	-	-
<b>10/02/09</b>		<b>9,771</b>	<b>7</b>	<b>30</b>	<b>17</b>	<b>1,200</b>	<b>59</b>	<b>7.3</b>	-	-	-
<b>10/20/09</b>		<b>10,131</b>	<b>15</b>	<b>30</b>	<b>17</b>	<b>1,200</b>	<b>59</b>	-	<b>7,500</b>	<b>180</b>	<b>97.6%</b>
<b>11/03/09</b>		<b>10,468</b>	<b>14</b>	<b>30</b>	<b>17</b>	<b>1,200</b>	<b>59</b>	<b>ND&lt;7.0</b>	-	-	-
<b>12/11/09</b>		<b>10,530</b>	<b>3</b>	<b>30</b>	<b>17</b>	<b>1,200</b>	<b>59</b>	-	<b>4,800</b>	<b>85</b>	<b>98.2%</b>
<b>AVG</b>	-	-	-	<b>30</b>	<b>17</b>	<b>1,200</b>	<b>59</b>	-	<b>6,150</b>	<b>133</b>	<b>97.9%</b>

**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)	TPH-g 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	97.5%	-	-	-
06/27/07		5	0.2	780	780	3,868	161	2.69	-	-	1.5	<1.0	-	N	N	420	25	94.0%	0.0127	0.0026	0.0004
06/28/07		10	0.2	1,300	520	2,579	107	1.79	-	-	1.5	<1.0	-	N	N	6,400	25	99.6%	0.1369	0.0302	0.0050
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	99.5%	0.0488	1.471	0.2452
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	70.2%	0.0032	1.524	0.2540
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	79.2%	0.0029	1.589	0.2649
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	100.0%	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)	TPH-g 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	80.8%	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	79.2%	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	99.0%	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	99.7%	0.2324	103.0	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	99.8%	0.4896	110.9	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	99.7%	0.3201	117.7	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	99.7%	0.0601	119.5	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	99.6%	0.1239	122.0	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	99.7%	0.3360	127.5	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	99.7%	0.2590	134.3	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	99.7%	0.2598	140.8	23.47
02/09/09		8,300	0.1	1,381,550	0	0	0	0.00	-	-	-	OFFLINE	OFFLINE	N	N	11,000	25	99.8%	0.0000	140.8	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	98.8%	0.0823	140.9	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	95.8%	0.0132	141.2	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	97.7%	0.0291	141.3	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	99.4%	0.2525	142.8	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	-	-	-	-	-	-
10/20/09	10	10,131	15.0	1,576,350	56,260	3,751	156	2.60	8	8	8	OFFLINE	OFFLINE	N	N	7,500	25	99.7%	0.2335	146.3	24.39
11/03/09		10,468	14.1	1,640,720	64,370	4,579	191	3.18	16	16	16	OFFLINE	OFFLINE	N	N	-	-	-	-	-	-
12/11/09		10,530	2.6	1,640,720	0	0	0	0.00	15	15	15	OFFLINE	OFFLINE	N	N	4,800	25	99.5%	0.0000	146.3	24.39
<b>AVG</b>	-	-	-	-	-	<b>4,165</b>	<b>174</b>	<b>2.89</b>	<b>12</b>	<b>12</b>	<b>12</b>	-	-	-	-	<b>6,150</b>	<b>25</b>	<b>99.6%</b>	<b>0.1167</b>	-	-

**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/10<sup>9</sup>µg)  
 Total Mass Removed (lbs) = (1 gallon)\*(1,000µg/L - 25µg/L)\*(3.785L/gallon)\*(2.2lbs/10<sup>9</sup>µg)  
 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 (LCO8) 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 10/05/07 and started up on 10/09/07
- 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
- Neptune (Model T-10) cold water flow totalizer was replaced on 10/07/09 at 1,520,090 gallons treated

**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	-	-	-	-	-	-
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:	11/23/2009
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)	16.92		
Depth to Free Product (from top of casing)	Not detected		
Water Elevation (feet above msl)	15.63		
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)	21.6		
Actual Volume Purged (gallons)	22.0		
Appearance of Purge Water	Initially dark brown, clears after 1.5 gallons		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
10:00	1	19.74	480	0.26	5.61	-161.7	Light brown
	2	19.97	475	0.23	5.61	-155.3	Clear
	3	20.06	475	1.08	5.58	-151.1	Clear
	5	20.15	477	0.39	5.59	-137.4	Clear
	7	20.13	486	0.9	5.61	-123.1	Clear
	9	20.09	499	1.53	5.63	-114.8	Clear
	12	19.99	486	2.34	5.68	-111.1	Clear
	15	19.97	465	2.28	5.73	-112.3	Clear
	18	20.04	464	3.91	5.67	-96.3	Clear
	22	19.87	459	1.43	5.49	-95.1	Clear

**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-2**

Project Name:	Vic's Automotive	Date of Sampling:	11/23/2009
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)	17.94		
Water Elevation (feet above msl)	15.30		
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)	5.0		
Appearance of Purge Water	Initially light brown, clears after 1 gallon		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
9:03	1	18.71	505	0.96	5.19	-83.6	Light brown
	2	18.82	486	0.41	5.23	-77.4	Clear
	3	18.85	475	0.31	5.26	-69.9	Clear
	4	18.89	462	0.24	5.26	-59.1	Clear
	5	18.91	453	0.22	5.26	-53.9	Clear

**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:	11/23/2009
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)	34.25		
Depth of Well	25.00		
Depth to Water (from top of casing)	19.04		
Water Elevation (feet above msl)	15.21		
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)	11.6		
Actual Volume Purged (gallons)	12.0		
Appearance of Purge Water	Initially light brown, clears after 1 gallon		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
8:08	1	19.66	466	0.43	5.23	43.8	Light brown
	2	19.89	466	0.29	5.22	41.7	Clear
	3	19.99	461	0.28	5.24	37.7	Clear
	4	20.09	445	0.9	5.27	28.6	Clear
	5	20.11	443	1.22	5.21	21.8	Clear
	6	20.12	451	1.09	5.26	-1.6	Clear
	7	20.09	463	0.55	5.29	-8.2	Clear
	8	20.07	467	0.42	5.29	-5.5	Clear
	10	20.06	467	0.46	5.29	-3.2	Clear
	12	20.06	467	0.56	5.29	-1.6	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-4**

Project Name:	Vic's Automotive	Date of Sampling:	11/23/2009
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)	19.79		
Water Elevation (feet above msl)	14.63		
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)	10.1		
Actual Volume Purged (gallons)	11.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
8:45	1	17.94	215	7.78	5.14	59.8	Clear
	2	18.04	224	8.28	5.11	61.1	Clear
	3	18.06	219	7.81	5.11	60.5	Clear
	4	18.06	215	7.23	5.09	60.4	Clear
	5	18.03	211	6.54	5.09	58.4	Clear
	6	18.01	210	6.25	5.11	56.5	Clear
	7	17.97	211	6.27	5.15	55.9	Clear
	8	17.96	211	6.27	5.06	52.1	Clear
	9	17.96	205	7.31	5.07	69.4	Clear
	11	17.97	202	7.41	5.08	67.7	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-5**

Project Name:	Vic's Automotive	Date of Sampling:	11/23/2009
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)	17.39		
Water Elevation (feet above msl)	15.94		
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)	<b>8.9</b>		
Actual Volume Purged (gallons)	9.0		
Appearance of Purge Water	Initially light brown, clears after 4 gallons		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
11:22	1	20.59	614	0.45	5.25	-119.1	Light brown
	2	20.71	528	0.36	5.31	-113.5	Light brown
	3	20.68	412	0.34	5.38	-102.9	Light brown
	4	20.61	401	0.33	5.45	-104.5	Clear
	5	20.51	399	0.36	5.47	-99.1	Clear
	6	20.71	382	0.82	5.47	-91.1	Clear
	7	20.62	377	0.81	5.48	-89.1	Clear
	8	20.62	305	0.71	5.20	-30.2	Clear
	9	20.64	292	0.47	5.25	-31.4	Clear

**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-6**

Project Name:	Vic's Automotive	Date of Sampling:	11/23/2009
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)	16.53		
Depth to Free Product (from top of casing)	Not detected		
Water Elevation (feet above msl)	16.29		
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)	<b>10.6</b>		
Actual Volume Purged (gallons)	11.0		
Appearance of Purge Water	Initially light brown, clears after 1 gallon		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
10:48	1	18.79	240	0.28	4.98	37.9	Light brown
	2	19.91	223	0.33	4.85	52.1	Clear
	3	19.93	219	0.38	4.85	48.3	Clear
	4	19.95	226	0.34	4.91	30.1	Clear
	5	19.92	246	0.35	5.07	-5.6	Clear
	6	19.86	261	0.44	5.15	-18.8	Clear
	7	19.82	272	0.59	5.23	-31.6	Clear
	8	19.76	276	0.74	5.32	-39.1	Clear
	9	19.68	281	0.71	5.32	-41.2	Clear
	11	19.81	292	0.87	5.26	-32.9	Clear

**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-7**

Project Name:	Vic's Automotive	Date of Sampling:	11/23/2009
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)	17.33		
Depth to Free Product (from top of casing)	Not detected		
Water Elevation (feet above msl)	15.74		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	9.1		
Actual Volume Purged (gallons)	10.0		
Appearance of Purge Water	Initially light brown, clears after 3 gallons		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
9:23	1	19.62	479	0.31	5.11	-105.1	Light brown
	2	19.83	481	0.24	5.18	-114.9	Light brown
	3	19.86	467	0.24	5.29	-124.3	Clear
	4	19.71	444	0.29	5.34	-128.3	Clear
	5	19.74	433	0.31	5.43	-126.8	Clear
	6	19.75	411	0.37	5.45	-124.3	Clear
	7	19.75	405	0.41	5.45	-122.5	Clear
	8	19.81	396	0.47	5.46	-120.1	Clear
	9	19.58	363	0.68	5.35	-75.5	Clear
	10	19.79	407	0.37	5.35	-82.7	Clear

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


**AEI CONSULTANTS**  
GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

**Monitoring Well Number: MW-8**

Project Name:	Vic's Automotive	Date of Sampling:	11/23/2009
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)	31.73		
Depth of Well	22.00		
Depth to Water (from top of casing)	16.72		
Depth to Free Product (from top of casing)	Not detected		
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)	10.2		
Actual Volume Purged (gallons)	11.0		
Appearance of Purge Water	Clear		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
7:40	1	19.04	154	2.97	5.55	13.9	Clear
	2	19.32	147	3.94	5.51	9.3	Clear
	3	19.37	152	4.21	5.51	-20.9	Clear
	4	19.41	160	3.71	5.53	-33.7	Clear
	5	19.43	172	2.91	5.55	-42.8	Clear
	6	19.44	177	2.06	5.57	-50.1	Clear
	7	19.45	177	1.75	5.59	-53.4	Clear
	8	19.46	171	1.65	5.65	-59.9	Clear
	11	19.43	180	3.41	5.61	-19.5	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:	11/23/2009
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)	29.02		
Depth of Well	22.73		
Depth to Water (from top of casing)	15.36		
Depth to Free Product (from top of casing)	Not detected		
Water Elevation (feet above msl)	13.66		
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 grey, clears after 1 gallon		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
6:27	1	20.08	458	1.78	5.60	-92.9	Light grey
	2	20.39	479	1.41	5.59	-98.3	Clear
	3	20.33	513	1.03	5.54	-84.4	Clear
	4	20.46	465	0.89	5.56	-93.1	Clear
	5	20.36	587	0.82	5.53	-98.8	Clear

**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:	11/23/2009
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 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-11**

Project Name:	Vic's Automotive	Date of Sampling:	11/23/2009
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:	11/23/2009
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)	32.05		
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:	11/23/2009
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)	28.84		
Depth of Well	22.00		
Depth to Water (from top of casing)	15.11		
Water Elevation (feet above msl)	13.73		
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)	7.0		
Appearance of Purge Water	Initially light brown, clears quickly		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
6:14	1	20.33	446	2.96	4.90	52.0	Light brown
	2	20.28	458	3.14	5.15	35.7	Clear
	3	20.22	454	2.84	5.31	24.2	Clear
	4	20.14	426	1.76	5.51	5.20	Clear
	5	19.99	361	1.06	5.66	-17.9	Clear
	6	19.95	344	1.03	5.66	-21.8	Clear
	7	19.95	347	1.16	5.65	-23.0	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-14**

Project Name:	Vic's Automotive	Date of Sampling:	11/23/2009
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)	29.53		
Depth of Well	22.00		
Depth to Water (from top of casing)	15.53		
Water Elevation (feet above msl)	14.00		
Well Volumes Purged	3		
Gallons Purged: formula valid only for casing sizes of 2" (.16 gal/ft), 4" (.65 gal/ft), and 6" (1.44 gal/ft)	3.1		
Actual Volume Purged (gallons)	5.0		
Appearance of Purge Water	Light grey		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
7:18	1	19.27	427	2.10	5.53	-44.0	Light grey
	2	19.59	416	1.05	5.38	-54.6	Light grey
	3	19.63	406	0.61	5.40	-61.7	Light grey
	4	19.63	414	0.50	5.49	-72.8	Light grey
	5	19.57	416	0.76	5.66	-76.7	Light grey

**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-15**

Project Name:	Vic's Automotive	Date of Sampling:	11/23/2009
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)	29.22		
Depth of Well	22.00		
Depth to Water (from top of casing)	15.95		
Water Elevation (feet above msl)	13.27		
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)	4.0		
Appearance of Purge Water	Initially light brown, clears after 1 gallon		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
7:06	1	19.39	635	0.36	5.75	-72.0	Light brown
	2	19.53	645	0.30	5.77	-65.1	Clear
	3	19.64	651	0.27	5.80	-61.8	Clear
	4	19.67	649	0.25	5.69	-60.7	Clear

**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-16**

Project Name:	Vic's Automotive	Date of Sampling:	11/23/2009
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)	28.87		
Depth of Well	22.00		
Depth to Water (from top of casing)	15.61		
Water Elevation (feet above msl)	13.26		
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 brown, clears after 1 gallon		
Free Product Present?	No	Thickness (ft):	NA

**GROUNDWATER SAMPLES**

Number of Samples/Container Size				Three (3) 40mL VOAs			
Time	Vol Removed (gal)	Temperature (deg C)	Conductivity	DO	PH	ORP (meV)	Comments
6:43	1	19.19	828	1.22	5.72	-54.9	Light brown
	2	19.25	849	0.87	5.75	-61.0	Clear
	3	18.59	837	1.03	5.73	-50.8	Clear
	4	18.79	835	1.00	5.75	-53.7	Clear

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

No hydrocarbon 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**



**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: 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.

0910040

**McCAMPBELL ANALYTICAL INC.**

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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.#WC081989

E-Mail: [rbradford@aeiconsultatns.com](mailto:rbradford@aeiconsultatns.com)

Telephone: (925) 746-6000

Fax: (925) 746-6099

AEI Project No. 116907

Project Name: Vic's Automotive

Project Location: 245 8<sup>th</sup> Street, Oakland, California 94607

Sampler Signature: *John Sigg*

**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 <sub>3</sub>	Other					
MW-2S	MW-2S	10-2-09	0830	1	TB			X											X
MW-5S	MW-5S		0845	1	TB			X											X
MW-7S	MW-7S		0900	1	TB			X											X
MW-10S	MW-10S		0915	1	TB			X											X
MW-11S	MW-11S		0930	1	TB			X											X
AS	AS		0945	1	TB			X											X
PRED	PRED		1000	1	TB			X											X
STACK	STACK		1015	1	TB			X											X

Relinquished By: <i>John Sigg</i>	Date: 10-2-09	Time: 1245	Received By: <i>Memo</i>
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° <i>NA</i>	VOAS	O&G	METALS	OTHER
GOOD CONDITION <input checked="" type="checkbox"/>	PRESERVATION			
HEAD SPACE ABSENT <input checked="" type="checkbox"/>	APPROPRIATE			
DECHLORINATED IN LAB <input checked="" type="checkbox"/>	CONTAINERS			
	PERSERVED IN LAB <input checked="" type="checkbox"/>			



# 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:	Ricky Bradford	Email: rbradford@aeiconsultants.com	Bill to:	Denise Mockel	Requested TAT: 5 days
	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:



# 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: 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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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 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) <sup>f</sup>	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.



**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: 10/20/09
	Client Contact: Ricky Bradford	Date Received: 10/20/09
	Client P.O.: #WC082024	Date Reported: 10/26/09
		Date Completed: 10/26/09

**WorkOrder: 0910620**

October 27, 2009

Dear Ricky:

Enclosed within are:

- 1) The results of the **10** 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.

0910620

**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.#WC082024

E-Mail: [rbradford@aeiconsultatns.com](mailto:rbradford@aeiconsultatns.com)

Telephone: (925) 746-6000

Fax: (925) 746-6099

AEI Project No. 116907

Project Name: Vic's Automotive

Project Location: 245 8<sup>th</sup> Street, Oakland, California 94607

Sampler Signature: *John Sigg*

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 <sub>3</sub>	Other					
* MW-1S	MW-1S	10-20-09	1000	1	TB			X											X
MW-2S	MW-2S		0830	1	TB			X											X
MW-5S	MW-5S		0845	1	TB			X											X
* MW-6S	MW-6S		1015	1	TB			X											X
MW-7S	MW-7S		0900	1	TB			X											X
MW-10S	MW-10S		0915	1	TB			X											X
MW-11S	MW-11S		0930	1	TB			X											X
* MW-12S	MW-12S		1030	1	TB			X											X
POSTD	POSTD																		Not Sampled
PRED	PRED		0945	1	TB			X											X
AS	AS																		Not Sampled
STACK	STACK																		Not Sampled
PRED	PRED		1045	1	TB			X											X

Relinquished By: <i>John Sigg</i>	Date: 10-20-09	Time: 1335	Received By: <i>[Signature]</i>	ICE/° <u>N/A</u> ✓	PRESERVATION APPROPRIATE CONTAINERS <u>✓</u>	VOAS <u>✓</u>	O&G	METALS	OTHER
Relinquished By:	Date:	Time:	Received By:	GOOD CONDITION <u>✓</u>	HEAD SPACE ABSENT <u>✓</u>	DECHLORINATED IN LAB <u>✓</u>	PERSERVED IN LAB <u>✓</u>		
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: 0910620**

**ClientCode: AEL**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

<b>Report to:</b>		<b>Bill to:</b>	<b>Requested TAT: 5 days</b>
Ricky Bradford	Email: rbradford@aeiconsultants.com	Denise Mockel	
AEI Consultants	cc:	AEI Consultants	<b>Date Received: 10/20/2009</b>
2500 Camino Diablo, Ste. #200	PO: #WC082024	2500 Camino Diablo, Ste. #200	<b>Date Printed: 10/20/2009</b>
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	
0910620-001	MW-1S	Air	10/20/2009 10:00	<input type="checkbox"/>	A	A											
0910620-002	MW-2S	Air	10/20/2009 8:30	<input type="checkbox"/>	A												
0910620-003	MW-5S	Air	10/20/2009 8:45	<input type="checkbox"/>	A												
0910620-004	MW-6S	Air	10/20/2009 10:15	<input type="checkbox"/>	A												
0910620-005	MW-7S	Air	10/20/2009 9:00	<input type="checkbox"/>	A												
0910620-006	MW-10S	Air	10/20/2009 9:15	<input type="checkbox"/>	A												
0910620-007	MW-11S	Air	10/20/2009 9:30	<input type="checkbox"/>	A												
0910620-008	MW-12S	Air	10/20/2009 10:30	<input type="checkbox"/>	A												
0910620-009	PRED(0945)	Air	10/20/2009 9:45	<input type="checkbox"/>	A												
0910620-010	PRED(1045)	Air	10/20/2009 10:45	<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 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: **10/20/2009 2:05:01 PM**

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

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

WorkOrder N°: **0910620** 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:



# McC Campbell Analytical, Inc.

"When Quality Counts"

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Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
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AEI Consultants  2500 Camino Diablo, Ste. #200  Walnut Creek, CA 94597	Client Project ID: #116907; Vic's Automotive	Date Sampled: 10/20/09
	Client Contact: Ricky Bradford	Date Received: 10/20/09
	Client P.O.: #WC082024	Date Extracted: 10/20/09
		Date Analyzed: 10/20/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0910620

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1S	A	450	ND<10	17	57	8.0	58	4	101	d1
002A	MW-2S	A	11,000	ND<150	280	640	43	360	20	98	d1
003A	MW-5S	A	6000	ND<15	21	110	13	390	2	107	d1
004A	MW-6S	A	280	ND	2.2	10	7.4	42	1	116	d1
005A	MW-7S	A	14,000	ND<150	200	410	30	550	20	117	d1
006A	MW-10S	A	8000	ND<70	150	370	32	290	10	103	d1
007A	MW-11S	A	2900	ND<50	64	120	15	170	1	109	d1
008A	MW-12S	A	430	ND<5.0	14	30	3.1	38	2	117	d1
009A	PRED(0945)	A	8900	ND<75	120	300	30	480	6.7	85	d1
010A	PRED(1045)	A	2100	ND<15	25	71	8.7	130	2	96	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



# 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: 10/20/09
	Client Contact: Ricky Bradford	Date Received: 10/20/09
	Client P.O.: #WC082024	Date Extracted: 10/20/09
		Date Analyzed: 10/20/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0910620

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1S	A	130	ND<2.7	5.2	15	1.8	13	4	101	d1
002A	MW-2S	A	3000	ND<35	85	170	9.7	82	20	98	d1
003A	MW-5S	A	1700	ND<5.0	6.3	28	2.9	88	2	107	d1
004A	MW-6S	A	78	ND	0.69	2.7	1.7	9.5	1	116	d1
005A	MW-7S	A	3800	ND<40	63	110	6.9	120	20	117	d1
006A	MW-10S	A	2200	ND<20	47	97	7.2	65	10	103	d1
007A	MW-11S	A	800	ND<15	20	32	3.4	39	1	109	d1
008A	MW-12S	A	120	ND<1.4	4.2	7.9	0.70	8.6	2	117	d1
009A	PRED(0945)	A	2500	ND<20	38	80	6.7	110	6.7	85	d1
010A	PRED(1045)	A	590	ND<5.0	7.7	19	2.0	30	2	96	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: 46567

WorkOrder: 0910620

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0910595-012A			
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) <sup>f</sup>	ND	60	110	110	0	105	101	3.67	70 - 130	20	70 - 130	20
MTBE	ND	10	97.5	97.5	0	85.7	87.4	1.98	70 - 130	20	70 - 130	20
Benzene	ND	10	97.7	96.6	1.11	102	95.5	6.44	70 - 130	20	70 - 130	20
Toluene	ND	10	99.7	97.9	1.81	103	97.2	5.89	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	97	96.8	0.200	102	95.5	6.48	70 - 130	20	70 - 130	20
Xylenes	ND	30	99.8	99.1	0.716	104	97.9	5.63	70 - 130	20	70 - 130	20
%SS:	99	10	99	99	0	108	101	6.86	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 46567 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910620-001A	10/20/09 10:00 AM	10/20/09	10/20/09 4:47 PM	0910620-001A	10/20/09 10:00 AM	10/20/09	10/20/09 4:47 PM
0910620-002A	10/20/09 8:30 AM	10/20/09	10/20/09 5:22 PM	0910620-002A	10/20/09 8:30 AM	10/20/09	10/20/09 5:22 PM
0910620-003A	10/20/09 8:45 AM	10/20/09	10/20/09 5:55 PM	0910620-003A	10/20/09 8:45 AM	10/20/09	10/20/09 5:55 PM
0910620-004A	10/20/09 10:15 AM	10/20/09	10/20/09 6:28 PM	0910620-004A	10/20/09 10:15 AM	10/20/09	10/20/09 6:28 PM
0910620-005A	10/20/09 9:00 AM	10/20/09	10/20/09 7:00 PM	0910620-005A	10/20/09 9:00 AM	10/20/09	10/20/09 7:00 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.



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 46601

WorkOrder: 0910620

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0910626-001A			
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) <sup>£</sup>	ND	60	95.3	94.1	1.31	99	93.7	5.46	70 - 130	20	70 - 130	20
MTBE	ND	10	114	111	2.37	106	108	1.34	70 - 130	20	70 - 130	20
Benzene	ND	10	106	106	0	105	104	0.735	70 - 130	20	70 - 130	20
Toluene	ND	10	96.1	95.5	0.704	95.6	93.6	2.09	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	94.9	95.1	0.270	94.2	94.1	0.119	70 - 130	20	70 - 130	20
Xylenes	ND	30	108	109	0.570	107	106	0.647	70 - 130	20	70 - 130	20
%SS:	98	10	101	102	0.470	103	103	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 46601 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910620-006A	10/20/09 9:15 AM	10/20/09	10/20/09 7:33 PM	0910620-006A	10/20/09 9:15 AM	10/20/09	10/20/09 7:33 PM
0910620-007A	10/20/09 9:30 AM	10/20/09	10/20/09 8:05 PM	0910620-007A	10/20/09 9:30 AM	10/20/09	10/20/09 8:05 PM
0910620-008A	10/20/09 10:30 AM	10/20/09	10/20/09 8:37 PM	0910620-008A	10/20/09 10:30 AM	10/20/09	10/20/09 8:37 PM
0910620-009A	10/20/09 9:45 AM	10/20/09	10/20/09 9:09 PM	0910620-009A	10/20/09 9:45 AM	10/20/09	10/20/09 9:09 PM
0910620-010A	10/20/09 10:45 AM	10/20/09	10/20/09 9:42 PM	0910620-010A	10/20/09 10:45 AM	10/20/09	10/20/09 9:42 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.



**McC Campbell Analytical, Inc.**

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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: 10/20/09
	Client Contact: Ricky Bradford	Date Received: 10/20/09
	Client P.O.: #WC082025	Date Reported: 10/26/09
		Date Completed: 10/23/09

**WorkOrder: 0910621**

October 26, 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.

0910621

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.#WC082025

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]*

Analysis Request

Other

Comments

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other					
INF	INF	10-20-09	1100	3	VOA	X					X	X							
POST-AS	POST-AS		1110	3	VOA	X					X	X							
EFF	EFF		1120	3	VOA	X					X	X							

BTEX & TPH as Gas (602/8020+ 8015C) Only

\*Total Oil & Grease HC (1664 HEM-SGT)

\*Use two (2) 1-Liter Ambers (w/ HCl)

Record Flow Totalizer Reading

56260

Relinquished By: <i>[Signature]</i>	Date: 10-20-09	Time: 1335	Received By: <i>[Signature]</i>
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 7.6

GOOD CONDITION  PRESERVATION

HEAD SPACE ABSENT  APPROPRIATE CONTAINERS

DECHLORINATED IN LAB \_\_\_\_\_ PRESERVED IN LAB \_\_\_\_\_

VOAS  O&G  METALS  OTHER

**McC Campbell Analytical, Inc.**



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

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 0910621**

**ClientCode: AEL**

WaterTrax    WriteOn    EDF    Excel    Fax    Email    HardCopy    ThirdParty    J-flag

<b>Report to:</b>		<b>Bill to:</b>	<b>Requested TAT: 5 days</b>
Ricky Bradford	Email: rbradford@aeiconsultants.com	Denise Mockel	
AEI Consultants	cc:	AEI Consultants	<i>Date Received: 10/20/2009</i>
2500 Camino Diablo, Ste. #200	PO: #WC082025	2500 Camino Diablo, Ste. #200	<i>Date Printed: 10/20/2009</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	
0910621-001	INF	Water	10/20/2009 11:00	<input type="checkbox"/>	A	A											
0910621-002	POST-AS	Water	10/20/2009 11:10	<input type="checkbox"/>	A												
0910621-003	EFF	Water	10/20/2009 11:20	<input type="checkbox"/>	A												

**Test Legend:**

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

**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: **10/20/2009 3:23:11 PM**

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

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

WorkOrder N°: **0910621** 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: 7.6°C 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
- (Ice Type: WET ICE )

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

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

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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: 10/20/09
	Client Contact: Ricky Bradford	Date Received: 10/20/09
	Client P.O.: #WC082025	Date Extracted: 10/21/09-10/23/09
		Date Analyzed: 10/21/09-10/23/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0910621

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF	W	7500	---	270	650	60	1600	50	100	d1
002A	POST-AS	W	180	---	0.52	0.78	ND	8.0	1	107	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 SW8021B/8015Bm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 46601

WorkOrder 0910621

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0910626-001A			
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) <sup>£</sup>	ND	60	95.3	94.1	1.31	99	93.7	5.46	70 - 130	20	70 - 130	20
MTBE	ND	10	114	111	2.37	106	108	1.34	70 - 130	20	70 - 130	20
Benzene	ND	10	106	106	0	105	104	0.735	70 - 130	20	70 - 130	20
Toluene	ND	10	96.1	95.5	0.704	95.6	93.6	2.09	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	94.9	95.1	0.270	94.2	94.1	0.119	70 - 130	20	70 - 130	20
Xylenes	ND	30	108	109	0.570	107	106	0.647	70 - 130	20	70 - 130	20
%SS:	98	10	101	102	0.470	103	103	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 46601 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0910621-001A	10/20/09 11:00 AM	10/21/09	10/21/09 2:39 PM	0910621-002A	10/20/09 11:10 AM	10/23/09	10/23/09 4:15 AM
0910621-003A	10/20/09 11:20 AM	10/22/09	10/22/09 7:25 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.

£ 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.



**McC Campbell Analytical, Inc.**

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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: 11/03/09
	Client Contact: Ricky Bradford	Date Received: 11/03/09
	Client P.O.: #WC082059	Date Reported: 11/06/09
		Date Completed: 11/05/09

**WorkOrder: 0911049**

November 06, 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: 0911049

ClientCode: AEL

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

Report to:		Bill to:	Requested TAT: <b>5 days</b>
Ricky Bradford	Email: rbradford@aeiconsultants.com	Denise Mockel	
AEI Consultants	cc:	AEI Consultants	Date Received: 11/03/2009
2500 Camino Diablo, Ste. #200	PO: #WC082059	2500 Camino Diablo, Ste. #200	Date Printed: 11/03/2009
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	
0911049-001	MW-2S	Air	11/3/2009 8:30	<input type="checkbox"/>	A	A											
0911049-002	MW-5S	Air	11/3/2009 8:45	<input type="checkbox"/>	A												
0911049-003	MW-7S	Air	11/3/2009 9:00	<input type="checkbox"/>	A												
0911049-004	MW-10S	Air	11/3/2009 9:15	<input type="checkbox"/>	A												
0911049-005	MW-11S	Air	11/3/2009 9:30	<input type="checkbox"/>	A												
0911049-006	AS	Air	11/3/2009 9:45	<input type="checkbox"/>	A												
0911049-007	PRED	Air	11/3/2009 10:00	<input type="checkbox"/>	A												
0911049-008	STACK	Air	11/3/2009 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: **11/3/2009 1:46:42 PM**  
 Project Name: **#116907; Vic's Automotive** Checklist completed and reviewed by: **Maria Venegas**  
 WorkOrder N°: **0911049** 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:



# 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: 11/03/09
	Client Contact: Ricky Bradford	Date Received: 11/03/09
	Client P.O.: #WC082059	Date Extracted: 11/03/09-11/04/09
		Date Analyzed: 11/03/09-11/04/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0911049

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-2S	A	8900	ND<50	220	520	38	300	20	96	d1
002A	MW-5S	A	4800	ND<10	15	92	8.6	360	4	94	d1
003A	MW-7S	A	13,000	ND<70	140	330	28	610	6.7	97	d1
004A	MW-10S	A	8200	ND<30	130	320	29	320	4	111	d1
005A	MW-11S	A	2900	ND<35	53	110	12	190	6.7	111	d1
006A	AS	A	ND	ND	ND	ND	ND	ND	1	100	
007A	PRED	A	7100	ND<30	87	220	20	310	5	98	d1
008A	STACK	A	ND	ND	ND	ND	ND	ND	1	103	

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: 11/03/09
	Client Contact: Ricky Bradford	Date Received: 11/03/09
	Client P.O.: #WC082059	Date Extracted: 11/03/09-11/04/09
		Date Analyzed: 11/03/09-11/04/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0911049

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-2S	A	2500	ND<14	68	130	8.6	69	20	96	d1
002A	MW-5S	A	1300	ND<2.7	4.7	24	2.0	82	4	94	d1
003A	MW-7S	A	3800	ND<20	42	87	6.3	140	6.7	97	d1
004A	MW-10S	A	2300	ND<10	39	85	6.5	72	4	111	d1
005A	MW-11S	A	820	ND<10	16	30	2.6	42	6.7	111	d1
006A	AS	A	ND	ND	ND	ND	ND	ND	1	100	
007A	PRED	A	2000	ND<10	27	58	4.5	71	5	98	d1
008A	STACK	A	ND	ND	ND	ND	ND	ND	1	103	

ppm (mg/L) to ppmv (ul/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit for DF =1; 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: 46880

WorkOrder: 0911049

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0911069-002A			
	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) <sup>£</sup>	ND	60	111	116	4.23	93.8	90.8	3.29	70 - 130	20	70 - 130	20
MTBE	ND	10	95.3	88.7	7.12	106	107	0.618	70 - 130	20	70 - 130	20
Benzene	ND	10	98.4	103	5.07	93.8	95.1	1.31	70 - 130	20	70 - 130	20
Toluene	ND	10	95.7	101	5.09	93.3	95.3	2.06	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	95	99.1	4.24	91.3	93.9	2.80	70 - 130	20	70 - 130	20
Xylenes	ND	30	94.6	97.7	3.16	92.9	95	2.22	70 - 130	20	70 - 130	20
%SS:	86	10	97	100	2.47	98	99	1.23	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 46880 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0911049-001A	11/03/09 8:30 AM	11/03/09	11/03/09 3:45 PM	0911049-001A	11/03/09 8:30 AM	11/03/09	11/03/09 3:45 PM
0911049-002A	11/03/09 8:45 AM	11/03/09	11/03/09 4:18 PM	0911049-002A	11/03/09 8:45 AM	11/03/09	11/03/09 4:18 PM
0911049-003A	11/03/09 9:00 AM	11/03/09	11/03/09 4:51 PM	0911049-003A	11/03/09 9:00 AM	11/03/09	11/03/09 4:51 PM
0911049-004A	11/03/09 9:15 AM	11/03/09	11/03/09 5:24 PM	0911049-004A	11/03/09 9:15 AM	11/03/09	11/03/09 5:24 PM
0911049-005A	11/03/09 9:30 AM	11/03/09	11/03/09 5:57 PM	0911049-005A	11/03/09 9:30 AM	11/03/09	11/03/09 5:57 PM
0911049-006A	11/03/09 9:45 AM	11/04/09	11/04/09 9:37 PM	0911049-006A	11/03/09 9:45 AM	11/04/09	11/04/09 9:37 PM
0911049-007A	11/03/09 10:00 AM	11/04/09	11/04/09 2:32 PM	0911049-007A	11/03/09 10:00 AM	11/04/09	11/04/09 2:32 PM
0911049-008A	11/03/09 10:15 AM	11/04/09	11/04/09 6:22 PM	0911049-008A	11/03/09 10:15 AM	11/04/09	11/04/09 6:22 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.



**McC Campbell Analytical, Inc.**

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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 Auto (Q4, 2009)	Date Sampled: 11/23/09
	Client Contact: Ricky Bradford	Date Received: 11/23/09
	Client P.O.: #WC082113	Date Reported: 11/30/09
		Date Completed: 11/30/09

**WorkOrder: 0911563**

November 30, 2009

Dear Ricky:

Enclosed within are:

- 1) The results of the **13** analyzed samples from your project: **#116907; Vic's Auto (Q4, 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.

0911563

**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. # WC082113

E-Mail: [rbradford@aeiconsultatns.com](mailto:rbradford@aeiconsultatns.com)

Telephone: (925) 944-2899, ext. 148 Fax: (925) 944-2895

Project No: 116907 Project Name: Vic's Auto (Q4, 2009)

Project Location: 245 8<sup>th</sup> Street, Oakland, CA 94607

Sampler Signature: *A. [Signature]*

Analysis Request

Other

Comments

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED				TPH-g & MBTEX (SW8015C/8021B)	TPH-d (SW8015C)	MTBE Only (SW8260B)			
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other						
MW-1	MW-1	11/23/09	1100	3	VOA	X					X	X			X					DPE Well
MW-2	MW-2		1000	3	VOA	X					X	X			X					DPE Well
MW-3	MW-3		900	3	VOA	X					X	X			X					
MW-4	MW-4		930	3	VOA	X					X	X			X					
MW-5	MW-5		1200	3	VOA	X					X	X			X					DPE Well
MW-6	MW-6		1130	3	VOA	X					X	X			X					DPE Well
MW-7	MW-7		1030	3	VOA	X					X	X			X					DPE Well
MW-8	MW-8		830	3	VOA	X					X	X			X					
MW-9	MW-9		700	3	VOA	X					X	X			X					
MW-10	MW-10			3	VOA	X					X	X			X					Not Sampled
MW-11	MW-11			3	VOA	X					X	X			X					Not Sampled
MW-12	MW-12			3	VOA	X					X	X			X					Not Sampled
MW-13	MW-13		645	3	VOA	X					X	X			X					

Page 1 of 2

Relinquished By: <i>[Signature]</i>	Date: 11/23/09	Time: 1610	Received By: <i>[Signature]</i>
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/# 3.6  
 GOOD CONDITION  
 HEAD SPACE ABSENT  
 DECHLORINATED IN LAB

PRESERVATION APPROPRIATE CONTAINERS PRESERVED IN LAB

VOAS  O&G  METALS  OTHER

+  
+  
+1  
+2  
+  
+1  
+2  
+1  
+2  
+1  
+2  
+1  
+1

**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. #** WC082113  
**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 8<sup>th</sup> Street, Oakland, CA 94607  
**Sampler Signature:** *[Signature]*

Analysis Request

Other

Comments

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other					
MW-14	MW-14	11/23/09	800	3	VOA	X					X	X							
MW-15	MW-15	↓	745	3	VOA	X					X	X							
MW-16	MW-16	↓	715	3	VOA	X					X	X							

TPH-g & MBTEX (SW8015C/8021B)  
TPH-d (SW8015C)

MTBE Only (SW8260B)

Page 2 of 2

+1  
+1  
+

Relinquished By: *[Signature]*      Date: 11/23/09      Time: 1610      Received By: *[Signature]*

Relinquished By:      Date:      Time:      Received By:

Relinquished By:      Date:      Time:      Received By:

ICE/t° \_\_\_\_\_  
 GOOD CONDITION \_\_\_\_\_  
 HEAD SPACE ABSENT \_\_\_\_\_  
 DECHLORINATED IN LAB \_\_\_\_\_

PRESERVATION APPROPRIATE \_\_\_\_\_  
 CONTAINERS \_\_\_\_\_  
 PERSERVED IN LAB \_\_\_\_\_

VOAS \_\_\_\_\_  
 O&G \_\_\_\_\_  
 METALS \_\_\_\_\_  
 OTHER \_\_\_\_\_

# McC Campbell Analytical, Inc.



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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0911563

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) 283-6121

Email: rbradford@aeiconsultants.com  
cc:  
PO: #WC082113  
ProjectNo: #116907; Vic's Auto (Q4, 2009)

**Bill to:**

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

**Requested TAT: 5 days**

**Date Received: 11/23/2009**

**Date Printed: 11/23/2009**

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	
0911563-001	MW-1	Water	11/23/2009 11:00	<input type="checkbox"/>	A	A											
0911563-002	MW-2	Water	11/23/2009 10:00	<input type="checkbox"/>	A												
0911563-003	MW-3	Water	11/23/2009 9:00	<input type="checkbox"/>	A												
0911563-004	MW-4	Water	11/23/2009 9:30	<input type="checkbox"/>	A												
0911563-005	MW-5	Water	11/23/2009 12:00	<input type="checkbox"/>	A												
0911563-006	MW-6	Water	11/23/2009 11:30	<input type="checkbox"/>	A												
0911563-007	MW-7	Water	11/23/2009 10:30	<input type="checkbox"/>	A												
0911563-008	MW-8	Water	11/23/2009 8:30	<input type="checkbox"/>	A												
0911563-009	MW-9	Water	11/23/2009 7:00	<input type="checkbox"/>	A												
0911563-010	MW-13	Water	11/23/2009 6:45	<input type="checkbox"/>	A												
0911563-011	MW-14	Water	11/23/2009 8:00	<input type="checkbox"/>	A												
0911563-012	MW-15	Water	11/23/2009 7:45	<input type="checkbox"/>	A												
0911563-013	MW-16	Water	11/23/2009 7:15	<input type="checkbox"/>	A												

**Test Legend:**

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

**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: **11/23/2009 4:15:25 PM**

Project Name: **#116907; Vic's Auto (Q4, 2009)**

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

WorkOrder N°: **0911563** 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: 3.6°C 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
- (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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"When Quality Counts"

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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 Auto (Q4, 2009)	Date Sampled: 11/23/09
	Client Contact: Ricky Bradford	Date Received: 11/23/09
	Client P.O.: #WC082113	Date Extracted: 11/24/09-11/25/09
		Date Analyzed: 11/24/09-11/25/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0911563

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	63,000	ND<250	3300	9800	1500	8200	50	107	d1
002A	MW-2	W	400	ND<30	20	10	1.0	33	1	112	d1
003A	MW-3	W	ND	ND	0.90	ND	0.59	1.2	1	107	b1
004A	MW-4	W	ND	ND	2.6	ND	1.5	2.3	1	99	b1
005A	MW-5	W	1700	ND<17	47	100	29	240	3.3	103	d1
006A	MW-6	W	28,000	ND<100	270	710	1200	5500	20	114	d1,b1
007A	MW-7	W	17,000	ND<50	430	1600	730	2800	10	113	d1
008A	MW-8	W	62	ND	5.3	2.0	2.4	3.3	1	120	d1,b1
009A	MW-9	W	39,000	750	11,000	390	1800	2400	33	113	d1,b1
010A	MW-13	W	ND	ND	ND	ND	ND	ND	1	105	b1
011A	MW-14	W	1600	ND	6.1	16	33	4.9	1	80	d1,b1
012A	MW-15	W	280	19	65	4.6	20	28	1	106	d1,b1
013A	MW-16	W	870	31	280	13	46	63	1	112	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: 47242

WorkOrder: 0911563

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0911541-002A			
	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) <sup>£</sup>	ND	60	108	121	11.1	121	112	7.59	70 - 130	20	70 - 130	20
MTBE	ND	10	96.6	99.9	3.37	116	115	1.34	70 - 130	20	70 - 130	20
Benzene	ND	10	98.9	100	1.30	107	107	0	70 - 130	20	70 - 130	20
Toluene	ND	10	99.2	100	0.754	96.7	94.8	2.03	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	96.5	97.7	1.21	96.8	94.2	2.69	70 - 130	20	70 - 130	20
Xylenes	ND	30	99.1	100	1.32	110	107	2.82	70 - 130	20	70 - 130	20
%SS:	104	10	100	101	1.45	99	101	2.11	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 47242 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0911563-001A	11/23/09 11:00 AM	11/24/09	11/24/09 4:55 PM	0911563-002A	11/23/09 10:00 AM	11/24/09	11/24/09 10:54 PM
0911563-003A	11/23/09 9:00 AM	11/25/09	11/25/09 12:17 AM	0911563-004A	11/23/09 9:30 AM	11/25/09	11/25/09 7:24 PM
0911563-005A	11/23/09 12:00 PM	11/24/09	11/24/09 10:25 PM	0911563-006A	11/23/09 11:30 AM	11/24/09	11/24/09 2:22 PM
0911563-007A	11/23/09 10:30 AM	11/24/09	11/24/09 2:52 PM	0911563-008A	11/23/09 8:30 AM	11/25/09	11/25/09 2:53 AM
0911563-009A	11/23/09 7:00 AM	11/24/09	11/24/09 4:18 PM	0911563-010A	11/23/09 6:45 AM	11/25/09	11/25/09 3:24 AM
0911563-011A	11/23/09 8:00 AM	11/25/09	11/25/09 3:54 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: 47259

WorkOrder: 0911563

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0911582-010A			
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) <sup>£</sup>	ND	60	111	114	2.91	93.1	112	18.2	70 - 130	20	70 - 130	20
MTBE	ND	10	123	121	1.93	120	119	0.459	70 - 130	20	70 - 130	20
Benzene	ND	10	112	114	1.63	113	112	0.757	70 - 130	20	70 - 130	20
Toluene	ND	10	99.7	101	1.22	100	99.6	0.418	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	98.3	100	1.84	99.1	99.2	0.0499	70 - 130	20	70 - 130	20
Xylenes	ND	30	112	114	2.05	113	112	0.395	70 - 130	20	70 - 130	20
%SS:	107	10	103	102	0.136	104	103	1.07	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 47259 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0911563-012A	11/23/09 7:45 AM	11/25/09	11/25/09 4:25 AM	0911563-013A	11/23/09 7:15 AM	11/25/09	11/25/09 5:58 AM

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

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

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

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

# cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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



**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 Auto (Q4, 2009)	Date Sampled: 11/23/09
	Client Contact: Ricky Bradford	Date Received: 11/23/09
	Client P.O.: #WC082113	Date Reported: 11/30/09
		Date Completed: 12/07/09

**WorkOrder: 0911563**

December 08, 2009

Dear Ricky:

Enclosed within are:

- 1) The results of the **5** analyzed samples from your project: **#116907; Vic's Auto (Q4, 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.

0911563

**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. # WC082113  
 E-Mail: [rbradford@aeiconsultatns.com](mailto:rbradford@aeiconsultatns.com)  
 Telephone: (925) 944-2899, ext. 148      Fax: (925) 944-2895  
 Project No: 116907      Project Name: Vic's Auto (Q4, 2009)  
 Project Location: 245 8<sup>th</sup> Street, Oakland, CA 94607  
 Sampler Signature: *[Signature]*

Analysis Request      Other      Comments

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED				TPH-g & MBTEX (SW8015C/8021B)	TPH-d (SW8015C)	MTBE Only (SW8260B)	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other				
MW-1	MW-1	11/23/09	1100	3	VOA	X					X	X		X			DPE Well	
MW-2	MW-2		1000	3	VOA	X					X	X		X			DPE Well	
MW-3	MW-3		900	3	VOA	X					X	X		X				
MW-4	MW-4		930	3	VOA	X					X	X		X				
MW-5	MW-5		1200	3	VOA	X					X	X		X			DPE Well	
MW-6	MW-6		1130	3	VOA	X					X	X		X			DPE Well	
MW-7	MW-7		1030	3	VOA	X					X	X		X			DPE Well	
MW-8	MW-8		830	3	VOA	X					X	X		X				
MW-9	MW-9		700	3	VOA	X					X	X		X				
MW-10	MW-10			3	VOA	X					X	X		X			Not Sampled	
MW-11	MW-11			3	VOA	X					X	X		X			Not Sampled	
MW-12	MW-12			3	VOA	X					X	X		X			Not Sampled	
MW-13	MW-13		645	3	VOA	X					X	X		X				

+  
+  
+1  
+2  
+  
+1  
+  
+2  
+1  
+1

Analysis Request												Other		Page 1 of 2
TPH-g & MBTEX (SW8015C/8021B)												MTBE Only (SW8260B)		
TPH-d (SW8015C)														
MIBK 25000 or 12/3/09 or 2500														
FAT 25000 or 12/3/09 or 2500														

Relinquished By: *[Signature]*      Date: 11/23/09      Time: 1610  
 Relinquished By:      Date:      Time:      Received By: *[Signature]*  
 Relinquished By:      Date:      Time:      Received By:

ICE/t° 3.6      PRESERVATION APPROPRIATE  
 GOOD CONDITION      CONTAINERS  
 HEAD SPACE ABSENT      PERSERVED IN LAB  
 DECHLORINATED IN LAB      VOAS O&G METALS OTHER

**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. # WC082113

E-Mail: [rbradford@aeiconsultatns.com](mailto: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 8<sup>th</sup> Street, Oakland, CA 94607  
 Sampler Signature: *[Signature]*

Analysis Request										Other		Comments										
TPH-g & MBTEX (SW8015C/8021B) TPH-d (SW8015C)										MTBE Only (SW8260B)		Page 2 of 2										

+1  
+1  
+

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED				
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other	
MW-14	MW-14	11/23/09	800	3	VOA	X					X	X			X
MW-15	MW-15	↓	745	3	VOA	X					X	X			X
MW-16	MW-16	↓	715	3	VOA	X					X	X			X

Relinquished By: <i>[Signature]</i>	Date: 11/23/09	Time: 1610	Received By: <i>[Signature]</i>
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° _____	PRESERVATION _____	VOAS _____	O&G _____	METALS _____	OTHER _____
GOOD CONDITION _____	APPROPRIATE _____				
HEAD SPACE ABSENT _____	CONTAINERS _____				
DECHLORINATED IN LAB _____	PERSERVED IN LAB _____				

# McC Campbell Analytical, Inc.



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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 091156 **A**

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  
(408) 559-7600 FAX (408) 559-7601

Email: rbradford@aeiconsultants.com  
cc:  
PO: #WC082113  
ProjectNo: #116907; Vic's Auto (Q4, 2009)

**Bill to:**

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

**Requested TAT: 5 days**

**Date Received: 11/23/2009**

**Date Add-On: 12/03/2009**

**Date Printed: 12/04/2009**

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	
0911563-001	MW-1	Water	11/23/2009 11:00	<input type="checkbox"/>	B												
0911563-002	MW-2	Water	11/23/2009 10:00	<input type="checkbox"/>	B												
0911563-005	MW-5	Water	11/23/2009 12:00	<input type="checkbox"/>	B												
0911563-006	MW-6	Water	11/23/2009 11:30	<input type="checkbox"/>	B												
0911563-007	MW-7	Water	11/23/2009 10:30	<input type="checkbox"/>	B												

**Test Legend:**

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

**Prepared by: Maria Venegas**

**Comments:** MTBE added on 12/03/09 on a std tat

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.



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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 (Q4, 2009)	Date Sampled: 11/23/09
	Client Contact: Ricky Bradford	Date Received: 11/23/09
	Client P.O.: #WC082113	Date Extracted: 12/04/09-12/05/09
		Date Analyzed: 12/04/09-12/05/09

## Methyl tert-Butyl Ether\*

Extraction method SW5030B

Analytical methods SW8260B

Work Order: 0911563

Lab ID	Client ID	Matrix	Methyl-t-butyl ether (MTBE)	DF	% SS	Comments
001B	MW-1	W	ND<17	33	101	a3
002B	MW-2	W	23	1	100	
005B	MW-5	W	ND	1	101	
006B	MW-6	W	ND<10	20	102	a3,b1
007B	MW-7	W	32	10	102	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.5	µg/L
	S	NA	NA

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

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

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

a3) sample diluted due to high organic content.  
 b1) aqueous sample that contains greater than ~1 vol. % sediment



**QC SUMMARY REPORT FOR SW8260B**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 47450

WorkOrder 0911563

EPA Method SW8260B		Extraction SW5030B							Spiked Sample ID: 0912136-008B			
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)	8.4	10	86.1	94.3	4.72	92.6	95.5	3.09	70 - 130	30	70 - 130	30
%SS1:	98	25	95	94	1.13	88	88	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 47450 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0911563-001B	11/23/09 11:00 AM	12/04/09	12/04/09 10:56 PM	0911563-002B	11/23/09 10:00 AM	12/04/09	12/04/09 11:40 PM
0911563-005B	11/23/09 12:00 PM	12/05/09	12/05/09 12:24 AM	0911563-006B	11/23/09 11:30 AM	12/05/09	12/05/09 1:08 AM
0911563-007B	11/23/09 10:30 AM	12/05/09	12/05/09 1:51 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.





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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: 12/11/09
		Date Received: 12/11/09
	Client Contact: Ricky Bradford	Date Reported: 12/16/09
	Client P.O.: #WC082060	Date Completed: 12/16/09

**WorkOrder: 0912310**

December 16, 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.

0912310

**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.#** WC082060  
**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<sup>th</sup> Street, Oakland, California 94607  
**Sampler Signature:** *John Siga*

**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 <sub>3</sub>	Other					
MW-1S	MW-1S	12-11-09	1030	1	TB			X											X
MW-2S	MW-2S		1040	1	TB			X											X
MW-5S	MW-5S		1050	1	TB			X											X
MW-6S	MW-6S		1100	1	TB			X											X
MW-7S	MW-7S		1110	1	TB			X											X
MW-10S	MW-10S		1120	1	TB			X											X
MW-11S	MW-11S		1130	1	TB			X											X
MW-12S	MW-12S		1140	1	TB			X											X
POSTD	POSTD																		Not Sampled
PRED	PRED		1150	1	TB			X											X
AS	AS																		Not Sampled
STACK	STACK																		Not Sampled

**Relinquished By:** *John Siga*      **Date:** 12-11-09      **Time:** 1358      **Received By:** *Chad P*  
**Relinquished By:** \_\_\_\_\_      **Date:** \_\_\_\_\_      **Time:** \_\_\_\_\_      **Received By:** \_\_\_\_\_  
**Relinquished By:** \_\_\_\_\_      **Date:** \_\_\_\_\_      **Time:** \_\_\_\_\_      **Received By:** \_\_\_\_\_

**ICE/r\*** \_\_\_\_\_      **PRESERVATION** \_\_\_\_\_  
**GOOD CONDITION** \_\_\_\_\_      **APPROPRIATE** \_\_\_\_\_  
**HEAD SPACE ABSENT** \_\_\_\_\_      **CONTAINERS** \_\_\_\_\_  
**DECLORINATED IN LAB** \_\_\_\_\_      **PERSERVED IN LAB** \_\_\_\_\_  
 VOAS    O&G    METALS    OTHER

# McC Campbell Analytical, Inc.



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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0912310

ClientCode: AEL

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

Report to:		Bill to:	Requested TAT: <b>5 days</b>
Ricky Bradford	Email: rbradford@aeiconsultants.com	Denise Mockel	
AEI Consultants	cc:	AEI Consultants	Date Received: 12/11/2009
2500 Camino Diablo, Ste. #200	PO: #WC082060	2500 Camino Diablo, Ste. #200	Date Printed: 12/11/2009
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	
0912310-001	MW-1S	Air	12/11/2009 10:30	<input type="checkbox"/>	A	A											
0912310-002	MW-2S	Air	12/11/2009 10:40	<input type="checkbox"/>	A												
0912310-003	MW-5S	Air	12/11/2009 10:50	<input type="checkbox"/>	A												
0912310-004	MW-6S	Air	12/11/2009 11:00	<input type="checkbox"/>	A												
0912310-005	MW-7S	Air	12/11/2009 11:10	<input type="checkbox"/>	A												
0912310-006	MW-10S	Air	12/11/2009 11:20	<input type="checkbox"/>	A												
0912310-007	MW-11S	Air	12/11/2009 11:30	<input type="checkbox"/>	A												
0912310-008	MW-12S	Air	12/11/2009 11:40	<input type="checkbox"/>	A												
0912310-009	PRED	Air	12/11/2009 11:50	<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: **12/11/2009 4:19:15 PM**  
 Project Name: **#116907; Vic's Automotive** Checklist completed and reviewed by: **Ana Venegas**  
 WorkOrder N°: **0912310** 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:



# 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: 12/11/09
	Client Contact: Ricky Bradford	Date Received: 12/11/09
	Client P.O.: #WC082060	Date Extracted: 12/11/09-12/12/09
		Date Analyzed: 12/11/09-12/12/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0912310

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1S	A	560	ND<5.0	17	47	6.8	64	2	120	d1
002A	MW-2S	A	5800	ND<45	130	310	29	230	10	110	d1
003A	MW-5S	A	1600	ND<10	8.5	38	7.9	110	4	109	d1
004A	MW-6S	A	100	ND	0.65	4.4	1.3	14	1	102	d1
005A	MW-7S	A	4800	ND<25	66	190	47	280	6.7	97	d1
006A	MW-10S	A	5300	ND<50	79	150	13	160	20	109	d1
007A	MW-11S	A	2400	ND<25	62	72	9.8	120	10	118	d1
008A	MW-12S	A	210	ND<3.0	8.5	17	2.0	24	1	113	d1
009A	PRED	A	2500	ND<10	33	77	8.8	110	4	111	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: 12/11/09
	Client Contact: Ricky Bradford	Date Received: 12/11/09
	Client P.O.: #WC082060	Date Extracted: 12/11/09-12/12/09
		Date Analyzed: 12/11/09-12/12/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0912310

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1S	A	160	ND<1.4	5.1	12	1.5	14	2	120	d1
002A	MW-2S	A	1600	ND<10	39	81	6.6	52	10	110	d1
003A	MW-5S	A	440	ND<2.7	2.6	9.8	1.8	26	4	109	d1
004A	MW-6S	A	29	ND	0.20	1.1	0.30	3.1	1	102	d1
005A	MW-7S	A	1300	ND<5.0	20	50	11	63	6.7	97	d1
006A	MW-10S	A	1500	ND<14	24	40	3.0	37	20	109	d1
007A	MW-11S	A	660	ND<6.8	19	19	2.2	28	10	118	d1
008A	MW-12S	A	60	ND<1.0	2.6	4.4	0.45	5.6	1	113	d1
009A	PRED	A	690	ND<2.7	10	20	2.0	25	4	111	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: 47560

WorkOrder: 0912310

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0912309-002B			
	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) <sup>£</sup>	ND	60	95.9	105	9.26	112	110	1.24	70 - 130	20	70 - 130	20
MTBE	ND	10	102	106	3.56	112	112	0	70 - 130	20	70 - 130	20
Benzene	ND	10	94.3	97.9	3.78	109	110	0.305	70 - 130	20	70 - 130	20
Toluene	ND	10	95.7	99.3	3.62	98	98.5	0.537	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	94.2	96.7	2.56	99	99.6	0.626	70 - 130	20	70 - 130	20
Xylenes	ND	30	95.8	99.2	3.47	115	116	1.17	70 - 130	20	70 - 130	20
%SS:	102	10	99	102	2.93	104	100	3.36	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 47560 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0912310-001A	12/11/09 10:30 AM	12/12/09	12/12/09 11:36 AM	0912310-001A	12/11/09 10:30 AM	12/12/09	12/12/09 11:36 AM
0912310-002A	12/11/09 10:40 AM	12/11/09	12/11/09 7:22 PM	0912310-002A	12/11/09 10:40 AM	12/11/09	12/11/09 7:22 PM
0912310-003A	12/11/09 10:50 AM	12/11/09	12/11/09 7:54 PM	0912310-003A	12/11/09 10:50 AM	12/11/09	12/11/09 7:54 PM
0912310-004A	12/11/09 11:00 AM	12/12/09	12/12/09 12:09 PM	0912310-004A	12/11/09 11:00 AM	12/12/09	12/12/09 12:09 PM
0912310-005A	12/11/09 11:10 AM	12/11/09	12/11/09 8:59 PM	0912310-005A	12/11/09 11:10 AM	12/11/09	12/11/09 8:59 PM
0912310-006A	12/11/09 11:20 AM	12/11/09	12/11/09 9:31 PM	0912310-006A	12/11/09 11:20 AM	12/11/09	12/11/09 9:31 PM
0912310-007A	12/11/09 11:30 AM	12/11/09	12/11/09 10:03 PM	0912310-007A	12/11/09 11:30 AM	12/11/09	12/11/09 10:03 PM
0912310-008A	12/11/09 11:40 AM	12/12/09	12/12/09 12:42 PM	0912310-008A	12/11/09 11:40 AM	12/12/09	12/12/09 12:42 PM
0912310-009A	12/11/09 11:50 AM	12/12/09	12/12/09 1:15 PM	0912310-009A	12/11/09 11:50 AM	12/12/09	12/12/09 1:15 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.



**McC Campbell Analytical, Inc.**

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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: 12/11/09
	Client Contact: Ricky Bradford	Date Received: 12/11/09
	Client P.O.: #WC082143	Date Reported: 12/16/09
		Date Completed: 12/15/09

**WorkOrder: 0912315**

December 16, 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.



0912315

**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.#WC082143

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<sup>th</sup> Street, Oakland, California 94607

Sampler Signature: *John Sigg*

Analysis Request

Other

Comments

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other				
INF	INF	12-11-09	1200	3	VOA	X					X	X						
POST-AS	POST-AS		1210	3	VOA	X					X	X						
EFF	EFF		1220	3	VOA	X					X	X						

BTEX & TPH as Gas (602/8020+ 8015C) Only

\*Total Oil & Grease HC (1664 HEM-SGT)

\*Use two (2) 1-Liter Ambers (w/ HCl)

Record Flow Totalizer Reading

+  
+  
⊕

Relinquished By:

*John Sigg*

Date:

12-11-09

Time:

1258

Received By:

*Arvin*

Relinquished By:

Date:

Time:

Received By:

Relinquished By:

Date:

Time:

Received By:

ICE/# 6.8  
 GOOD CONDITION   
 HEAD SPACE ABSENT   
 DECHLORINATED IN LAB

PRESERVATION APPROPRIATE   
 CONTAINERS PRESERVED IN LAB

VOAS  O&G  METALS  OTHER

# McC Campbell Analytical, Inc.



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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0912315

ClientCode: AEL

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

Report to:		Bill to:	Requested TAT: <b>5 days</b>
Ricky Bradford	Email: rbradford@aeiconsultants.com	Denise Mockel	
AEI Consultants	cc:	AEI Consultants	<i>Date Received: 12/11/2009</i>
2500 Camino Diablo, Ste. #200	PO: #WC082143	2500 Camino Diablo, Ste. #200	<i>Date Printed: 12/11/2009</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	
0912315-001	INF	Water	12/11/2009 12:00	<input type="checkbox"/>	A	A											
0912315-002	POST-AS	Water	12/11/2009 12:10	<input type="checkbox"/>	A												
0912315-003	EFF	Water	12/11/2009 12:20	<input type="checkbox"/>	A												

**Test Legend:**

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

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: **12/11/2009 4:28:40 PM**  
Project Name: **#116907; Vic's Automotive** Checklist completed and reviewed by: **Maria Venegas**  
WorkOrder N°: **0912315** 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: 6.8°C 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   
(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: 12/11/09
	Client Contact: Ricky Bradford	Date Received: 12/11/09
	Client P.O.: #WC082143	Date Extracted: 12/14/09-12/16/09
		Date Analyzed: 12/14/09-12/16/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0912315

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	INF	W	4800	---	140	350	60	770	20	96	d1
002A	POST-AS	W	85	---	1.1	2.8	0.59	8.3	1	99	d1
003A	EFF	W	ND	---	ND	ND	ND	ND	1	102	

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 SW8021B/8015Bm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 47560

WorkOrder 0912315

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0912309-002B			
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) <sup>£</sup>	ND	60	95.9	105	9.26	112	110	1.24	70 - 130	20	70 - 130	20
MTBE	ND	10	102	106	3.56	112	112	0	70 - 130	20	70 - 130	20
Benzene	ND	10	94.3	97.9	3.78	109	110	0.305	70 - 130	20	70 - 130	20
Toluene	ND	10	95.7	99.3	3.62	98	98.5	0.537	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	94.2	96.7	2.56	99	99.6	0.626	70 - 130	20	70 - 130	20
Xylenes	ND	30	95.8	99.2	3.47	115	116	1.17	70 - 130	20	70 - 130	20
%SS:	102	10	99	102	2.93	104	100	3.36	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 47560 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0912315-001A	12/11/09 12:00 PM	12/14/09	12/14/09 2:34 PM	0912315-002A	12/11/09 12:10 PM	12/14/09	12/14/09 7:32 PM
0912315-003A	12/11/09 12:20 PM	12/16/09	12/16/09 2:53 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.



**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: 12/16/09
	Client Contact: Ricky Bradford	Date Received: 12/16/09
	Client P.O.: #WC082149	Date Reported: 12/21/09
		Date Completed: 12/17/09

**WorkOrder: 0912426**

December 21, 2009

Dear Ricky:

Enclosed within are:

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

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

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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

0912426

**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  
 PO#WC082149  
 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<sup>th</sup> Street, Oakland, California 94607  
 Sampler Signature: *John Sigg*

Analysis Request Other Comments

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO <sub>3</sub>	Other					
PRED	PRED	12-16-09	0800	1	TB			X											

BTEX & TPH as Gas (602/8020 + 8015C)/MTBE	X																		
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

Relinquished By: <i>John Sigg</i>	Date: 12-16-09	Time: 0940	Received By: <i>Me Vall</i>
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° *N/A*  
 GOOD CONDITION   
 HEAD SPACE ABSENT   
 DECHLORINATED IN LAB   
 PRESERVATION APPROPRIATE   
 CONTAINERS PRESERVED IN LAB   
 VOAS O&G METALS OTHER

# McC Campbell Analytical, Inc.



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

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 0912426**

**ClientCode: AEL**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

<b>Report to:</b>		<b>Bill to:</b>	<b>Requested TAT: 5 days</b>
Ricky Bradford	Email: rbradford@aeiconsultants.com	Denise Mockel	
AEI Consultants	cc:	AEI Consultants	<i>Date Received: 12/16/2009</i>
2500 Camino Diablo, Ste. #200	PO: #WC082149	2500 Camino Diablo, Ste. #200	<i>Date Printed: 12/16/2009</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	
0912426-001	PRED	Air	12/16/2009 8:00	<input type="checkbox"/>	A	A											

**Test Legend:**

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

The following SampID: 001A contains 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: **12/16/2009 10:47:51 AM**  
Project Name: **#116907; Vic's Automotive** Checklist completed and reviewed by: **Maria Venegas**  
WorkOrder N°: **0912426** 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:



# 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: 12/16/09
	Client Contact: Ricky Bradford	Date Received: 12/16/09
	Client P.O.: #WC082149	Date Extracted: 12/16/09
		Date Analyzed: 12/16/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0912426

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	PRED	A	4400	ND<50	110	280	22	230	20	---#	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: 12/16/09
	Client Contact: Ricky Bradford	Date Received: 12/16/09
	Client P.O.: #WC082149	Date Extracted: 12/16/09
		Date Analyzed: 12/16/09

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 0912426

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	PRED	A	1200	ND<14	35	72	5.1	52	20	---#	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: 47637

WorkOrder 0912426

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0912399-002A			
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) <sup>f</sup>	ND	60	107	110	2.60	106	109	2.10	70 - 130	20	70 - 130	20
MTBE	ND	10	112	115	2.77	114	115	0.325	70 - 130	20	70 - 130	20
Benzene	ND	10	101	106	5.19	105	106	0.892	70 - 130	20	70 - 130	20
Toluene	ND	10	89.9	95.7	6.28	94.9	95.9	0.994	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	91.1	93.2	2.27	95.5	95.1	0.448	70 - 130	20	70 - 130	20
Xylenes	ND	30	102	109	6.68	109	109	0	70 - 130	20	70 - 130	20
%SS:	99	10	99	100	0.250	100	100	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 47637 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0912426-001A	12/16/09 8:00 AM	12/16/09	12/16/09 1:34 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 / 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**

**CURRENT AND PROPOSED GROUNDWATER  
MONITORING SCHEDULE**

## APPENDIX D: CURRENT & PROPOSED GROUNDWATER MONITORING SCHEDULE (DRAFT)

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