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Alameda County  
Environmental Health

Ms. Barbara Jakub  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway  
Alameda, CA 9502-6577

Subject: Former Val Strough Chevrolet Site  
327 34<sup>th</sup> Street, Oakland, CA  
Site ID #3035, RO#0000134

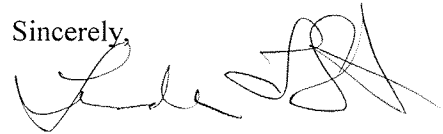
Dear Ms. Jakub:

This letter is to accompany the *Second Quarter 2009 Groundwater Monitoring Report* for the above-referenced site prepared by LRM Consulting, Inc. of Burlingame, CA.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

If you have any questions, please contact Mr. Mehrdad Javaherian of LRM Consulting, Inc. at 650-343-4633.

Sincerely,



Linda L. Strough, Trustee

cc: Mehrdad Javaherian, LRM Consulting, Inc.,  
1534 Plaza Lane, #145, Burlingame, CA 94010

Greggory Brandt, Wendel Rosen Black & Dean,  
1111 Broadway, 24<sup>th</sup> Floor, Oakland, CA 94607



**3rd QUARTER 2009  
GROUNDWATER  
MONITORING REPORT**

Former Val Strough Chevrolet Site  
327 34<sup>th</sup> Street, Oakland, California  
Fuel Leak Case No. RO0000134

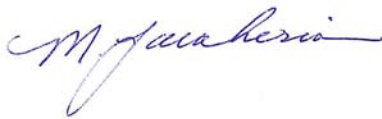
Prepared by  
**LRM Consulting, Inc.**  
**1534 Plaza Lane, #145**  
**Burlingame, CA 94010**

October 2009

## 3rd QUARTER 2009 GROUNDWATER MONITORING REPORT

Former Val Strough Chevrolet Site  
327 34<sup>th</sup> Street, Oakland, California  
Fuel Leak Case No. RO0000134

Prepared by  
**LRM Consulting, Inc.**  
1534 Plaza Lane, #145  
Burlingame, CA 94010



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Mehrdad M. Javaherian, Ph.D(c), MPH, NIH  
Principal-in-Charge



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Jing Heisler, PG, CHG  
Senior Geologist

October 2009



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## 1.0 INTRODUCTION

At the request of the Strough Family Trust of 1983, LRM Consulting, Inc. (LRM) has prepared this *3rd Quarter 2009 Groundwater Monitoring Report* for the former Val Strough Chevrolet located in Oakland, California. This report documents the procedures and findings of the September 10, 2009 groundwater monitoring event reflecting water quality reporting and water level gauging for all site wells per the existing Alameda County Health Care Services Agency (ACHCSA)-approved monitoring program for the site.

The scope of groundwater monitoring for this quarter corresponded to the ACHCSA-approved program, which for this quarter corresponds to gauging and sampling from all eleven site wells, including the first round of monitoring at newly installed well MW9. Also worth noting is that this monitoring reflects groundwater conditions approximately over three years following cessation of the dual phase extraction (DPE) system at the site; the operation of the DPE system was ceased on 30 June 2006. Groundwater monitoring data and well construction details are shown on the figures and presented in the tables. Groundwater monitoring protocols, field data, and analytical results are provided in the appendices.

### 1.1 General Site Information

<b>Site name:</b>	Former Val Strough Chevrolet
<b>Site address:</b>	327 34 <sup>th</sup> Street, Oakland, California
<b>Current property owner:</b>	Strough Family Trust of 1983
<b>Current site use:</b>	Automotive Dealership and Service Center
<b>Current phase of project:</b>	Groundwater monitoring and evaluation of need and approaches for additional remediation
<b>Tanks at site:</b>	Two former tanks (1 gasoline, 1 waste-oil) removed in 1993
<b>Number of wells:</b>	8 (all onsite)
<b>Site ID #:</b>	3035
<b>RO #:</b>	0000134

### 1.2 Site Contacts

<b>Consultant:</b>	Jing Heisler, PG, CHG Senior Geologist LRM Consulting, Inc. 1534 Plaza Lane, # 145 Burlingame, CA 94010 (415) 342-3713
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**Regulatory agency:**

Barbara Jakub, P.G.  
Alameda County Health Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6746

## 2.0 SITE BACKGROUND

### 2.1 Site Description

**Site Location and Land Use:** The former Val Strough Chevrolet site is currently an active Honda automobile dealership and service center located on the southwestern corner of the intersection of Broadway (Auto Row) and 34<sup>th</sup> Street (Figure 1). The property is located south of Interstate 580. Land use in the area is primarily commercial.

The site is situated approximately two miles east of San Francisco Bay at approximately 61 feet above mean sea level (msl) (EDR, 2003). The land surface in the vicinity slopes toward the south. The nearest surface water body is Lake Merritt, located approximately 1 mile south of the site (Figure 1).

**Site Features:** The site consists of a multi-level building and an adjacent parking lot (Figure 2). The former fuel dispenser and underground storage tanks (USTs) were located in the northwestern portion of the site. Seven groundwater monitoring wells are located at the site. Construction details for the wells are presented in Table 1.

**Underground Utilities:** A box culvert for a former tributary of Glen Echo Creek is located approximately 17 feet below ground surface (bgs) in the eastern portion of the site (Figure 2). The culvert consists of a reinforced concrete box measuring 5 feet by 6 feet. During the winter of 1983, a section of the culvert collapsed and was replaced with a 5-foot-diameter pipeline.

Sanitary sewer, electrical, and natural gas utilities are generally present at depths less than 2 feet bgs at the site. Approximately 40 feet north of the site, along the northern edge of 34<sup>th</sup> Street, a storm sewer pipeline flows toward the east and into the box culvert. Sanitary sewer lines run parallel to both 34<sup>th</sup> Street and Broadway, north and east of the site, respectively. A lateral pipeline located along the western edge of the site connects to the sanitary sewer line below 34<sup>th</sup> Street. Natural gas service is located on the east side of the property. Water service appears to enter the site from the north.

**Water Supply Well Search:** A 2003 report compiled by EDR indicates that there are no federal U.S. Geological Survey wells and no public water supply wells located within a 1-mile radius of the site. No water supply wells were identified by the Alameda County Department of Public Works within a ½-mile radius of the site (ETIC, 2003).

### 2.2 Summary of Previous Investigations and Monitoring Activities

As presented in previous reports, the USTs were removed and multiple investigations, including the installation of seven groundwater monitoring wells, were conducted. In addition, a routine groundwater monitoring program has been in place since 1993. The following paragraphs summarize the findings of these activities.



**Site Hydrogeology:** In general, the site is underlain by silt and clay to depths ranging from approximately 15 to 20 feet bgs. Silty sand and fine-grained sand interbedded with thin clay intervals are encountered from approximately 20 feet bgs to the total explored depth of 35 feet bgs.

The depth to groundwater beneath the site has ranged from approximately 12.5 to 23 feet bgs. As shown in the modified rose diagram on Figure 2, the direction of groundwater flow is generally toward the southwest to south-southeast, with average hydraulic gradients ranging from approximately 0.01 to 0.03 foot/foot.

**Primary Sources:** Two USTs (one gasoline and one waste-oil) were located beneath the sidewalk on the northern side of the property. A fuel dispenser was located inside the building (Figure 2). These primary sources of petroleum hydrocarbons were removed from the site in 1993.

**Constituents of Potential Concern:** Based on the type of fuel stored in the USTs and the results of previous subsurface investigations, the constituents of potential concern (COPCs) at the site include total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl t-butyl ether (MTBE). TPH as diesel (TPH-d) and TPH as motor oil (TPH-mo) are not routinely detected in groundwater samples and are considered secondary COPCs for the site.

**Residual Source Area:** Elevated concentrations of TPH-g, BTEX, and MTBE have been observed in soil in the vadose zone and upper portion of the water-bearing zone near the former USTs and fuel dispenser. Separate phase petroleum hydrocarbons (SPH) have been intermittently detected in wells MW-2 and MW-3, but none since March 2004 in MW-3 and June 2006 in MW-2. These data suggest that most of the residual petroleum hydrocarbon mass is present near the former USTs and fuel dispenser, herein referred to as the residual source area. This is corroborated by the dissolved groundwater data discussed below.

**Petroleum Hydrocarbon Distribution in Groundwater:** The highest concentrations of petroleum hydrocarbons have been detected in samples collected from wells MW-2 and MW-3. Generally significantly lower levels of petroleum hydrocarbons have been detected in samples collected from well MW-4, and the other site wells. The extent of dissolved-phase petroleum hydrocarbons in groundwater is largely defined by relatively low and stable TPH-g, BTEX, and MTBE concentrations detected in downgradient and cross-gradient monitoring wells MW-5, MW-6, MW-7, and MW-8 (Tables 2 and 3).

### **2.3 Summary of Interim Remedial Action Activities**

In addition to the routine groundwater monitoring activities, remediation pilot testing and remediation activities were conducted at the site between 2004 and 2006. A summary of these activities and associated regulatory correspondence with the ACHCSA are presented below:

***DPE Pilot Test:*** In March 2004, ETIC Engineering, Inc. (ETIC) performed a DPE pilot test at the site. As summarized in the June 2004 *Dual Phase Extraction Pilot Test and Interim Remedial Action Plan* (DPE and IRAP Report), vacuum was applied to source area wells MW-2 and MW-3 while water and vacuum levels were measured in nearby monitoring wells. The DPE pilot test induced more than 1 foot of drawdown up to 50 feet from the extraction wells and an estimated radius of vacuum influence of 55 to 70 feet. Based on vapor flow rates and petroleum hydrocarbon concentrations in the vapor stream during the short-term pilot test, removal rates of approximately 90 pounds of petroleum hydrocarbons per day were estimated.

***June 2004 DPE and IRAP Report:*** The DPE and interim remedial action plan (IRAP) Report (ETIC, 2004) described the planned reduction of residual petroleum hydrocarbon mass in the source area through temporary DPE system installation and operation and dual phase extraction from source area wells MW-2 and MW-3 to extract soil vapor and groundwater simultaneously. The system was designed to consist of a knockout vessel to be used for separation of the soil vapor and water streams. A thermal oxidizer (with propane as a supplemental fuel) was proposed for treatment of extracted vapor, and aqueous-phase granular activated carbon was proposed for treatment of extracted groundwater.

***Interim Remedial Action:*** Between February 2005 and June 2006, ETIC operated a DPE system on site. Vacuum was applied to remove groundwater and soil vapor from up to two wells (MW-2 and/or MW-3). The system was temporarily shutdown on 30 January 2006 for conversion of vapor treatment from thermal oxidation to carbon filtration, and remained offline until 22 May 2006, when it was restarted. Because the mass removal rates by the DPE system had reached asymptotic levels and high petroleum hydrocarbon concentrations continued to exist in extraction wells MW-2 and MW-3 despite the DPE operation, the benefit of continuation of DPE in its current configuration was considered to be low and the DPE operation was ceased on 30 June 2006. ETIC subsequently dismantled the remediation system and removed the skid mounted DPE unit from the site.

***August 2006 LRM Consulting, Inc. Correspondence and 11 December 2006 LRM Supplemental Source Area Investigation Work Plan:*** In a August 25, 2006 correspondence, LRM notified the ACHCSA of a project consultant change from ETIC to LRM. Also, based on a review of the available site data, the response of the hydrocarbon concentrations to past DPE operations, and the ACHCSA's comments on ETIC's Work Plan, LRM recommended a technical meeting with the ACHCSA to discuss the project direction. However, because of other commitments of Don Hwang and other ACHCSA staff, a technical meeting could not be scheduled. During a October 19, 2006 telephone conversation with Don Hwang, LRM presented an approach to conduct a supplemental investigation to define the magnitude and extent of the residual source area in the vicinity of the former fuel dispenser and wells MW-2 and MW-3. Based on these discussions and as agreed by Mr. Hwang, a supplemental source area investigation work plan outlining the proposed scope of work was prepared and submitted to ACHCSA on 11 December 2006; this work plan was revised through multiple discussions with Donna Drogos of the ACHCSA and was finalized in December of 2007. The subject investigation was conducted beginning on December 12, 2007, the results of

which were documented in a report to ACHCSA (LRM, 2008a).

**August 2008 LRM Consulting, Inc. IRAP:** In a August 25, 2008 IRAP report, LRM, in response to a request by Barbara Jakub of the ACHCSA, proposed a series of site investigation and pilot testing activities to address the residual source area at the site. These activities included: 1) soil and grab groundwater sampling to vertically characterize the extent of hydrocarbons within the residual source area previously encountered during the supplemental investigation referenced above; 2) grab groundwater sampling along the existing culvert at the site to evaluate the potential for preferential migration of hydrocarbons along the culvert backfill; 3), placement of a groundwater monitoring well (MW-8) at the downgradient site boundary to define the downgradient extent of hydrocarbons; and 4) pilot testing activities including injection and observation well installation and pilot testing protocols for implementation of in-situ oxygen curtain (iSOC) technology within the residual source area. In a letter dated December 5, 2008, the ACHCSA approved the proposed site investigation activities with select modifications listed. Additional information was also requested for the iSOC pilot testing, which were provided by LRM in its response to ACHCSA comment dated December 5, 2008. The investigation activities associated with the IRAP have been completed and reported to the ACHCSA. The ACHCSA has requested that an additional monitoring well be installed to monitor the proposed iSOC pilot testing.

**July 2009 LRM Consulting, Inc. Well Installation:** On July 15, 2009, wells MW9A and MW9B were installed using hollow stem augers as part of the monitoring program for the iSCO pilot testing. The well completion activity was observed by Ms. Vicky Hamlin of Alameda County Public Works and Ms. Barbara Jakub of Alameda County Environmental Health.

### **3.0 PROTOCOLS FOR GROUNDWATER MONITORING**

The following sections of this report present information relevant to the methods employed during the collection of groundwater samples from site wells on June 2, 2009. The scope of work for the quarterly groundwater monitoring event at the site are listed below, with monitoring protocols summarized in Appendix A:

- Checking all wells for SPH.
- Gauging the depth to groundwater in all eight site wells.
- Purging the monitoring wells prior to sampling.
- Collecting and analyzing groundwater samples from all eight onsite wells.
- Estimating the hydraulic gradient and general flow direction.
- Evaluating the data and preparing a written report summarizing the results of the monitoring event.

#### **3.1 Groundwater Gauging**

For this round of monitoring, groundwater gauging was performed for all eight onsite wells. The monitoring wells were opened prior to gauging to allow the groundwater level to equilibrate with atmospheric pressure. The depth to groundwater and depth to SPH, if present, were then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements were made from a fixed reference point at the top of the well casing.

The groundwater elevation map (Figure 2) for this monitoring event was constructed using depth-to-groundwater measurements collected during the current sampling event. Depth-to-groundwater measurements and calculated groundwater elevations are presented in Table 2. Field data forms are presented in Appendix B. Per the request of ACHCSA, the newly installed well (MW-8) and all existing site wells were resurveyed to the datum NAVD 88 prior to the 1<sup>st</sup> Quarter 2008 monitoring event and were reported in the accompanying report for that monitoring event.

#### **3.2 Well Purging**

For this round of monitoring, groundwater sampling and field parameters were analyzed for all eleven onsite wells; MW1 through MW9A/B, and O1. Three well casing volumes of water were purged from all wells and field parameters including temperature, pH, specific conductance, and dissolved oxygen (DO) were measured. Groundwater monitoring protocols are presented in Appendix A.



### **3.3 Groundwater Sampling**

After purging, groundwater was sampled at each of the eleven wells using dedicated tubing and a WaTerra inertial pump, or a disposable bailer. Sample containers were sealed, labeled, stored in a cooler and transported under chain-of-custody protocol to Kiff Analytical LLC (Kiff), a state-certified analytical laboratory in Davis, California. Groundwater analytical results and chain-of-custody documentation are presented in Appendix C.

## **4.0 MONITORING RESULTS**

### **4.1 Separate-Phase Hydrocarbon Monitoring**

The wells were monitored for the presence of SPH using a disposable bailer and/or interface probe. SPHs were not observed in any wells during this monitoring event. In fact, no SPHs have been detected at the site since the observation of sheen in June 2006 (see Table 2).

### **4.2 Groundwater Elevation and Hydraulic Gradient**

On September 10, 2009, the depth to groundwater beneath the site ranged from 15.58 (MW8) to 24.12 (MW5) feet bgs (Table 2). Correspondingly, groundwater elevations in the site wells ranged from 41.40 feet above msl in well MW6 to 43.51 feet above msl in well MW1 (Figure 2); these depth to groundwater measurements mark a decline in water levels by approximately 1 foot in most wells relative to the previous quarter. Using the results from the 3rd Quarter 2009 monitoring event, the hydraulic gradient is estimated at 0.014 ft/ft, with a general flow direction away from the residual source area toward the southeast (see Figure 2).

### **4.3 Groundwater Analytical Results**

On September 10, 2009, groundwater samples were collected from wells MW1 through MW9A/B, O1, and analyzed by Kiff for TPH-g, BTEX, and MTBE by EPA Method 8260B and for TPH-d and TPH-mo by modified EPA Method 8015. Additional groundwater samples were collected from 5 select wells (MW2, MW3, MW9A, MW9B, and O1) and analyzed for natural attenuation parameters (COD by EPA Method 410.4, nitrite/nitrate and ortho-phosphate by EPA Method 300.0, total kjeldahl nitrogen by ASTM Standard Method 4500).

Analytical results for this event are presented on Figure 3, and historical petroleum hydrocarbon analytical results are presented in Table 2a. Natural attenuation parameters, including field parameters such as DO, are summarized in Table 2b. Copies of the chain-of-custody and laboratory analytical reports for the groundwater samples are presented in Appendix C. The results of natural attenuation parameters will be evaluated as part of the pilot testing and presented in the pilot test report. Laboratory analytical results for petroleum hydrocarbons are summarized below:

- TPH-g was detected in samples collected from wells MW2, MW3, MW9A, MW9B, and O1. The maximum TPH-g concentration was detected at newly installed well MW9A (160,000 µg/L). TPH-g remained below the detection limit of 50 µg/L in all six other site wells.
- Benzene was detected in the samples collected from wells MW2, MW3, MW9A, MW9B, and O1. The maximum benzene concentration was detected at newly installed well MW9A (7,800 µg/L). Benzene was below the detection limit of 0.5 µg/L in all six other site wells.

- Toluene was detected at wells MW2, MW3, MW9A, MW9B, and O1. The maximum toluene concentration was detected at newly installed well MW9A (33,000 µg/L), but remained below the detection limit of 0.50 µg/L in all six other site wells.
- Ethylbenzene was detected at wells MW2, MW3, MW9A, MW9B, and O1. The maximum ethylbenzene concentration was detected at newly installed well MW9A (4,500 µg/L), but remained below the detection limit of 0.50 µg/L in all six other site wells.
- Total xylenes were detected at wells MW2, MW3, MW9A, MW9B, and O1. The maximum total xylenes concentration was detected at newly installed well MW9A (25,000 µg/L), but remained below the detection limit of 0.50 µg/L in all six other site wells.
- MTBE was detected in the samples collected from nine wells (MW2 through MW6, MW8, MW9A, MW9B, and O1). The maximum MTBE concentration was detected at newly installed well MW9A (1,800 µg/L). MTBE remained below the detection limit of 0.5 µg/L at two other wells (MW-1 and MW-7).
- Tert-butanol (TBA) was detected in the samples collected from four wells (MW2, MW3, MW9A, and O1). The maximum TBA concentration was detected at the newly installed well MW9A (780 µg/L). TBA was detected below the laboratory reporting limit of 5.0 µg/L in all other site wells.
- TPH-d was not detected in groundwater samples collected from any of the eleven wells this quarter, although detection limits in samples from wells MW2, MW3, MW9A, MW9B, and O1 were elevated due to interference from gasoline-range hydrocarbons (see Appendix C).
- TPH-mo was detected at a concentration of 410 µg/L in well MW9A and 190 µg/L in well MW2, but remained below the detection limit of 100 µg/L in all other site wells.

Chart 1 depicts TPH-g concentration trends for wells MW-2 and MW-3 located within the residual source area, and MW-4 located immediately downgradient of this location. As indicated on the chart, TPH-g concentrations have decreased in wells MW-2 and MW-3 relative to the previous quarter (2<sup>nd</sup> quarter 2009). Specifically, at well MW-2, TPH-g has decreased from 80,000 µg/L to 45,000 µg/L, while TPH-g concentrations at well MW-3 have decreased from 39,000 µg/L to 22,000 µg/L between the 2<sup>nd</sup> quarter 2009 and 3<sup>rd</sup> quarter 2009 events.

Moreover, as shown on Table 2, benzene concentrations for both wells exhibit a similar trend to TPH-g concentrations, increasing in the last two quarters when the groundwater levels are higher. These observations suggest that petroleum hydrocarbon contamination is concentrated in the smear zone.

Groundwater sample results from the newly installed cluster wells MW9A and MW9B indicated that both shallow and deep screened wells were impacted with petroleum hydrocarbons. A groundwater sample collected from the shallow well, MW9A, contained the highest TPH-g, BTEX, and MTBE concentrations, appeared to be the “hot spot” at the site.

Away from the residual source area, TPH-g levels in well MW-4 also continued their observed decline over time and remain below detection limits over the past several rounds of monitoring (see Chart 1). Data from wells MW-5 and MW-6 also indicate the general absence of TPH-g and BTEX compounds above detection limits over the past several years, and low level detections of MTBE at well MW-6. Also worth noting is that cross-gradient well MW-7 remained below detection limits for all compounds analyzed. The most downgradient onsite well MW-8 continues to show non-detectable TPH-g and BTEX and low level of MTBE (2.4 µg/L).

In summary, in the absence of SPHs over the past several years, petroleum hydrocarbon concentrations within the residual source area wells have begun to decline and stable over time. Specifically, when water levels are at lower elevations (e.g, during 3<sup>rd</sup> and 4<sup>th</sup> quarter events), hydrocarbon concentrations in the residual source area decline dramatically. Upon recovery of water levels in the 1<sup>st</sup> quarter and 2<sup>nd</sup> quarter events, TPH-g and benzene concentrations rebound. Importantly, away from the residual source area, hydrocarbon detections in wells remain largely undetected, with sporadic detections over time typically well below Environmental Screening Levels (ESLs) for groundwater used as a drinking water resource (Regional Water Quality Control Board San Francisco Bay Region, 2008). Accordingly, the hydrocarbon plume is largely confined to within the site boundaries and is stable.



## **5.0 PLANNED ACTIVITIES**

### **5.1 Pilot Testing Activities**

LRM will initiate pilot testing activities soon according to the approved Interim Remedial Action Plan. LRM will evaluate the effectiveness of the proposed method after the next sampling event scheduled for December 2009.

### **5.2 Planned Monitoring Activities**

Quarterly monitoring per the ACHCSA-approved plan will continue, with the next round scheduled for December 2009 (Table 4). Because TPH-d has never been detected in the groundwater samples collected from the site and TPH-mo was detected at low concentrations less than the ESLs, TPH-d and TPH-mo do not appear to be the chemicals of concern at the Site. Therefore, LRM proposes to stop analyzing TPH-d and TPH-mo starting the next quarter (December 2009).

## 6.0 REFERENCES

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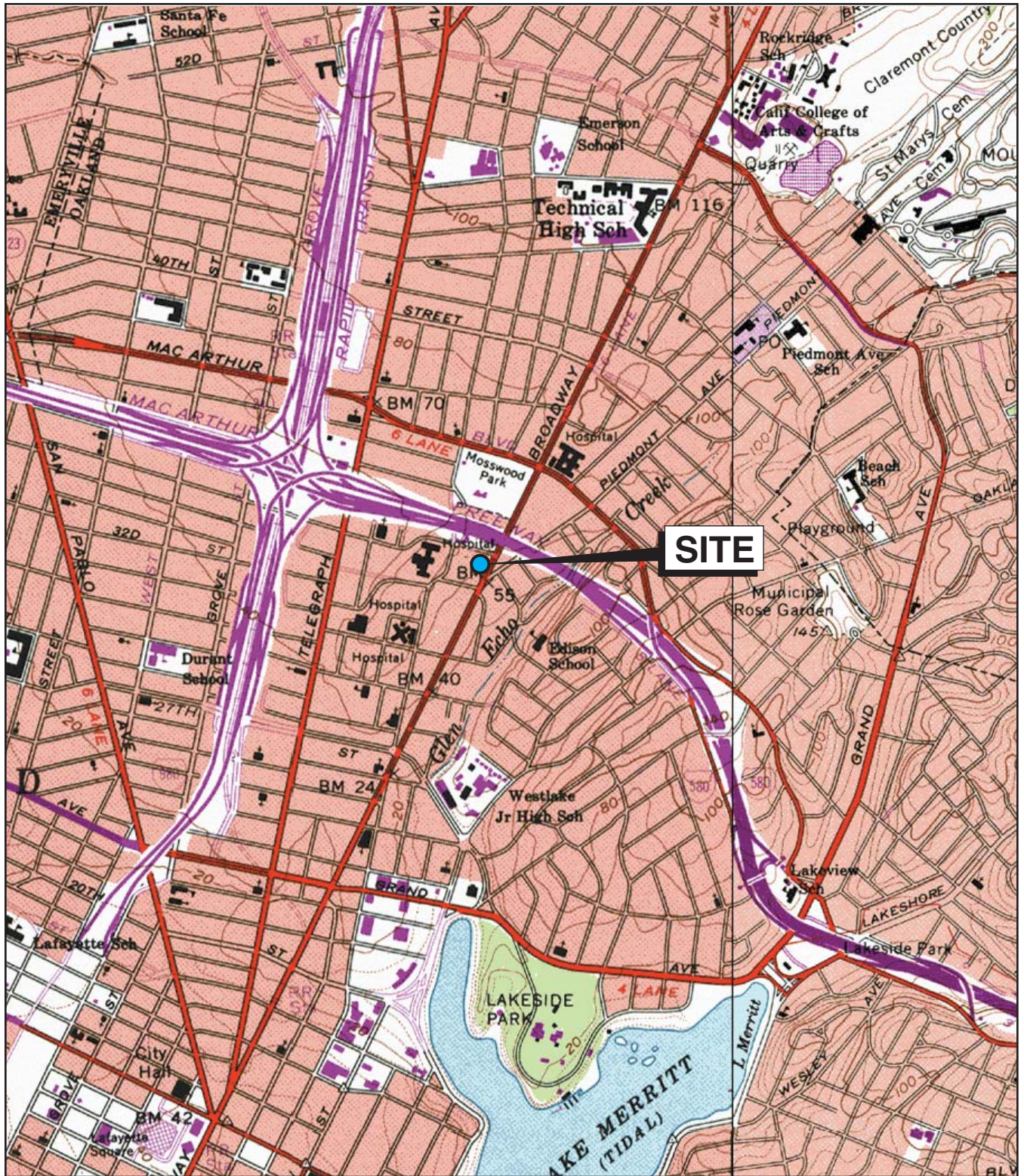
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- LRM Consulting, Inc. 2008e. Third Quarter 2008 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34<sup>th</sup> Street, Oakland, California. October.
- LRM Consulting, Inc. 2008f. Fourth Quarter 2008 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34<sup>th</sup> Street, Oakland, California. December.



LRM Consulting, Inc. 2009a. First Quarter 2009 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34<sup>th</sup> Street, Oakland, California. April.

LRM Consulting, Inc. 2009b. Second Quarter 2009 Groundwater Monitoring Report, Strough Family Trust of 1983, 327 34<sup>th</sup> Street, Oakland, California. June.

## FIGURES



Base map: Maptech Inc., 2001



0 2,000

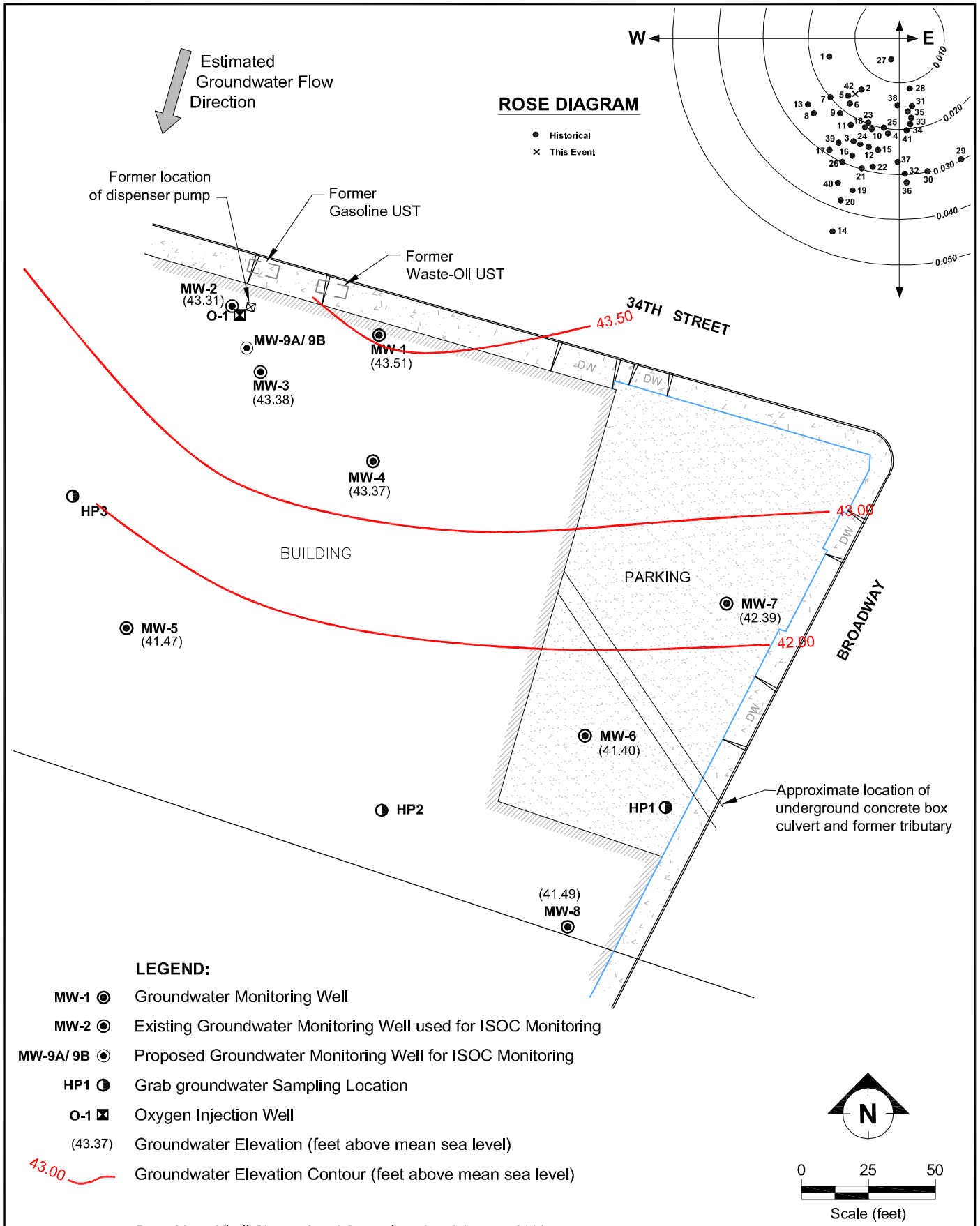
Scale (feet)



**SITE LOCATION MAP**  
 FORMER VAL STROUGH CHEVROLET  
 327 34TH STREET, OAKLAND, CALIFORNIA

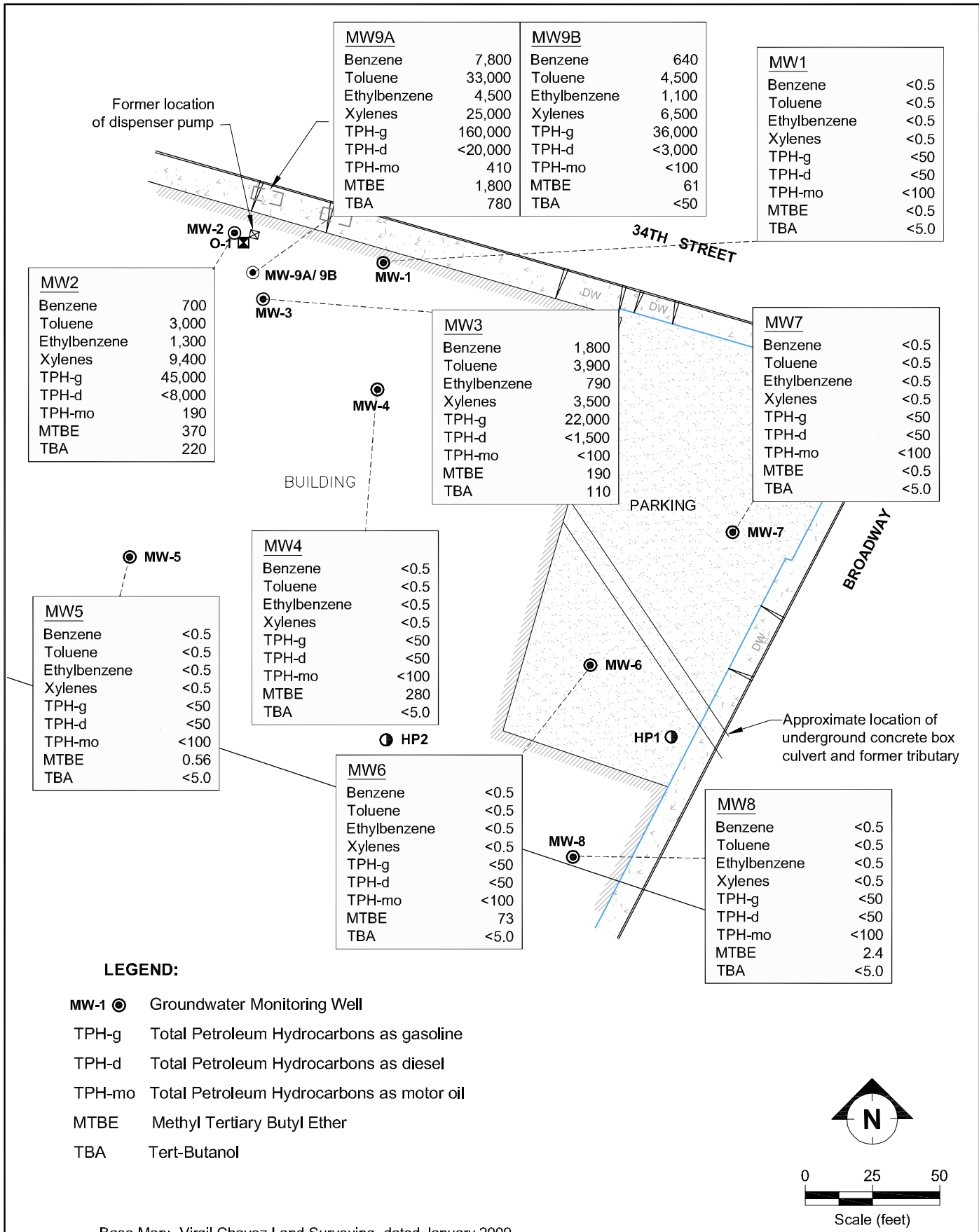
FIGURE:

**1**



**GROUNDWATER ELEVATION CONTOUR MAP**  
**3RD QUARTER 2009 MONITORING EVENT**  
 FORMER VAL STROUGH CHEVROLET  
 327 34TH STREET, OAKLAND, CALIFORNIA  
 SEPTEMBER 2009

FIGURE:  
2

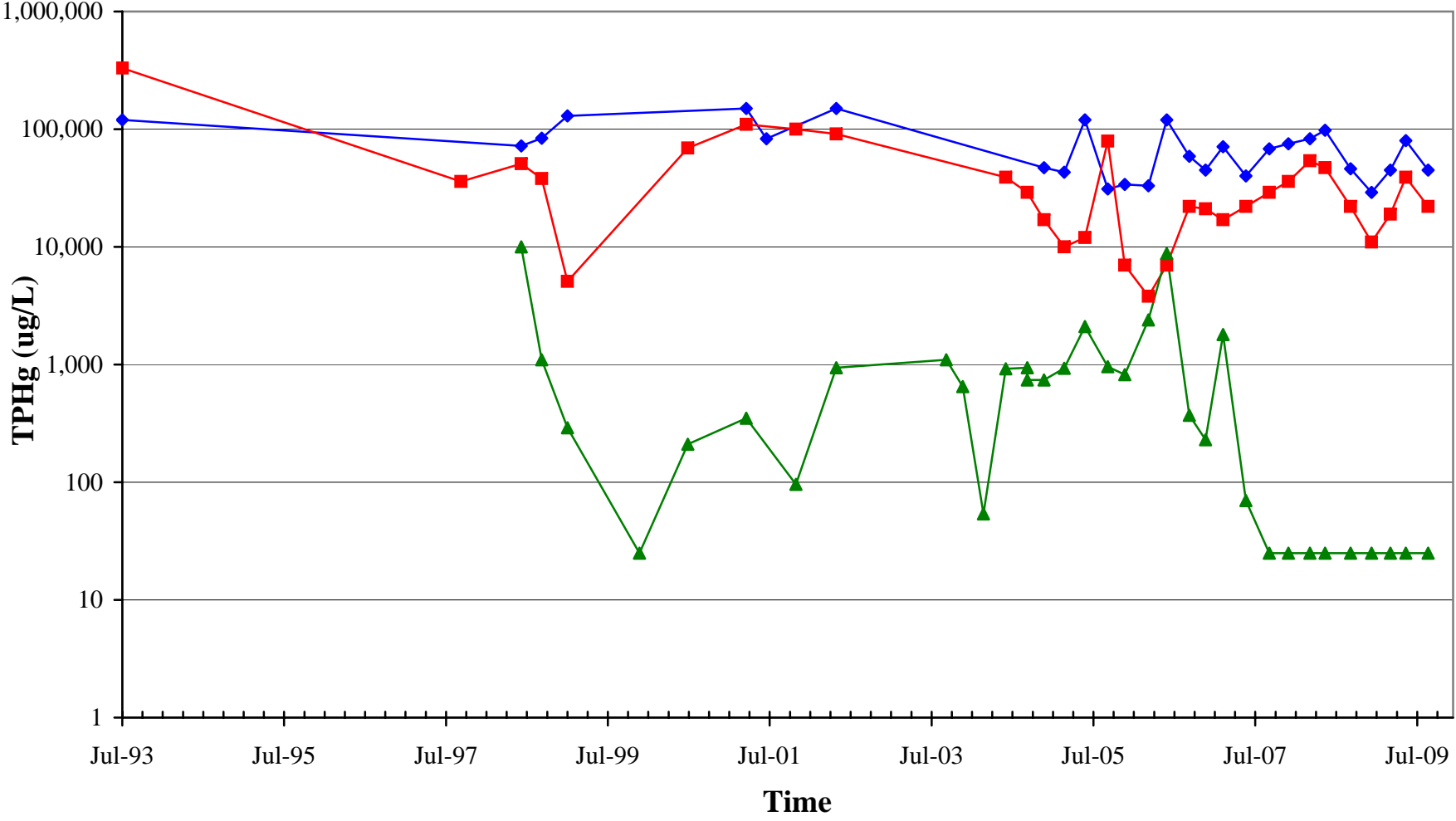


**GROUNDWATER ANALYTICAL DATA**  
**3RD QUARTER 2009 MONITORING EVENT**  
 FORMER VAL STROUGH CHEVROLET  
 327 34TH STREET, OAKLAND, CALIFORNIA  
 SEPTEMBER 2009

FIGURE:  
3



**Chart 1**  
**TPH-g Concentrations vs. Time**



—◆— MW2      —■— MW3      —▲— MW4

## **TABLES**

TABLE 1 WELL CONSTRUCTION DETAILS  
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well ID	Well Installation Date	Top-of-Casing Elevation* (feet)	Casing Material	Total Depth of Borehole (ft bgs)	Casing Diameter (inches)	Screened Interval (ft bgs)	Slot Size (inches)	Filter Pack Interval (ft bgs)	Filter Pack Material
MW1	7/19/1993	64.71	PVC	32	2	17 to 32	0.020	15 to 32	Gravel Pack
MW2	7/20/1993	65.71	PVC	33	2	18 to 33	0.020	16 to 33	Gravel Pack
MW3	7/20/1993	65.7	PVC	34	2	18 to 34	0.020	16 to 34	Gravel Pack
MW4	6/26/1998	64.37	PVC	31	2	15 to 31	0.020	13 to 31.5	Lonestar #3 Sand
MW5	6/26/1998	65.59	PVC	31	2	15 to 31	0.020	13 to 31.5	Lonestar #3 Sand
MW6	7/17/2000	59.60	PVC	31.5	2	10 to 30	0.020	8 to 30	Lonestar #3 Sand
MW7	7/17/2000	59.49	PVC	36.5	2	15 to 35	0.020	13 to 35	Lonestar #3 Sand
MW8	12/17/2008	57.07	PVC	26	1	11 to 26	0.010	9 to 26	#2/12 Sand
O1	12/12/2008	TBS	PVC	40	2	15 to 40	0.020	13 to 40	#3 Sand
MW9A	7/15/2009	TBS	PVC	25	2	15 to 25	0.020	14 to 25	#3 Monterey Sand
MW9B	7/15/2009	TBS	PVC	39	2	29 to 39	0.020	28 to 39	#3 Monterey sand

\* Elevations Based on Survey Conducted in 1st Quarter 2009 relative to NAVD88 datum.

PVC Polyvinyl chloride.

ft bgs Feet below ground surface.

TBS To Be Surveyed

TABLE 2a CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA  
 FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)								
						Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA
MW1	07/27/93	100.00	a 20.79	79.21	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	--	--	--
MW1	10/02/97	100.00	a 21.22	78.78	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	<2.0	--
MW1	06/30/98	100.00	a 18.21	81.79	0.00	<0.50	<0.50	2.1	0.6	84	--	--	2.1	--
MW1	07/29/98	100.00	a 18.74	81.26	0.00	--	--	--	--	--	--	--	--	--
MW1	08/26/98	100.00	a 19.28	80.72	0.00	--	--	--	--	--	--	--	--	--
MW1	10/01/98	100.00	a 19.93	80.07	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	--
MW1	10/30/98	100.00	a 20.22	79.78	0.00	--	--	--	--	--	--	--	--	--
MW1	11/30/98	100.00	a 19.99	80.01	0.00	--	--	--	--	--	--	--	--	--
MW1	12/28/98	100.00	a 19.81	80.19	0.00	--	--	--	--	--	--	--	--	--
MW1	01/25/99	100.00	a 19.62	80.38	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	--
MW1	02/26/99	100.00	a 17.18	82.82	0.00	--	--	--	--	--	--	--	--	--
MW1	03/24/99	100.00	a 17.28	82.72	0.00	--	--	--	--	--	--	--	--	--
MW1	05/12/99	100.00	a 17.91	82.09	0.00	--	--	--	--	--	--	--	--	--
MW1	12/15/99	100.00	a 21.01	78.99	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	<0.50	--
MW1	03/20/00	100.00	a 16.25	83.75	0.00	--	--	--	--	--	--	--	--	--
MW1	07/20/00	100.00	a 19.63	80.37	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	3.4	--
MW1	10/11/00	100.00	a 20.80	79.20	0.00	--	--	--	--	--	--	--	--	--
MW1	04/10-11/01	100.00	a 18.81	81.19	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	1.2	--
MW1	07/10/01	100.00	a 20.51	79.49	0.00	--	--	--	--	--	--	--	--	--
MW1	11/20/01	64.69	b 21.36	43.33	0.00	<0.50	1.3	<0.50	0.81	<50	<50	<300	<2.0	--
MW1	02/19/02	64.69	b 18.95	45.74	0.00	--	--	--	--	--	--	--	--	--
MW1	05/21/02	64.69	b 19.82	44.87	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<2.0	--
MW1	06/27/03	64.69	b 19.93	44.76	0.00	--	--	--	--	--	--	--	--	--
MW1	09/29/03	64.69	b 21.24	43.45	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--
MW1	12/12/03	64.69	b 21.27	43.42	0.00	<0.50	<0.50	<0.50	1.1	<50	58	<500	<0.50	--
MW1	03/15/04	64.69	b 18.18	46.51	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--
MW1	06/24/04	64.69	b 20.48	44.21	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--
MW1	09/29/04	64.69	b 21.37	43.32	0.00	<0.50	0.51	<0.50	<1.0	<50	<50	<500	<0.50	--
MW1	12/13/04	64.69	b 20.63	44.06	0.00	--	--	--	--	--	--	--	--	--
MW1	03/14/05	64.69	b 18.69	46.00	0.00	<0.50	<0.50	<0.50	<1.0	<50	73	<500	<0.50	--
MW1	06/15/05	64.69	b 20.32	44.37	0.00	--	--	--	--	--	--	--	--	--
MW1	09/26/05	64.69	b 22.10	42.59	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--
MW1	12/12/05	64.69	b 22.39	42.30	0.00	--	--	--	--	--	--	--	--	--
MW1	03/29/06	64.69	b 15.24	49.45	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	74	--
MW1	06/19/06	64.69	b 18.27	46.42	0.00	--	--	--	--	--	--	--	--	--
MW1	09/29/06	64.69	b 20.06	44.63	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	7.9	--
MW1	12/12/06	64.69	b 20.32	44.37	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	9.4	--
MW1	03/01/07	64.69	b 18.68	46.01	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	3.5	--
MW1	06/12/07	64.69	b 20.28	44.41	0.00	--	--	--	--	--	--	--	--	--
MW1	09/25/07	64.69	b 21.37	43.32	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	1.8	--
MW1	12/20/07	64.69	b 21.48	43.21	0.00	--	--	--	--	--	--	--	--	--
MW1	03/26/08	64.69	b 20.98	43.71	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	--

TABLE 2a CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA  
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)									
						Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA	
MW2	11/30/98	101.27	a 21.21	80.06	0.04	--	--	--	--	--	--	--	--	--	--
MW2	12/28/98	101.27	a 21.10	80.17	0.02	--	--	--	--	--	--	--	--	--	--
MW2	01/25/99	101.27	a 20.80	80.47	0.01	9,000	26,000	3,800	27,500	130,000	--	--	5,800	--	--
MW2	02/26/99	101.27	a 18.00	83.27	sheen	--	--	--	--	--	--	--	--	--	--
MW2	03/24/99	101.27	a 18.27	83.00	trace	--	--	--	--	--	--	--	--	--	--
MW2	05/12/99	101.27	a 19.08	82.19	trace	--	--	--	--	--	--	--	--	--	--
MW2	12/15-16/99	101.27	a 22.42	78.85	0.025	*	*	*	*	*	*	*	*	*	--
MW2	03/20/00	101.27	a 17.09	84.18	0.026	--	--	--	--	--	--	--	--	--	--
MW2	07/20/00	101.27	a 20.86	80.41	0.017	*	*	*	*	*	*	*	*	*	--
MW2	10/11/00	101.27	a 22.10	79.17	0.00	--	--	--	--	--	--	--	--	--	--
MW2	04/10-11/01	101.27	a 19.98	81.29	0.00	8,000	22,000	2,600	23,500	150,000	1,500	<600	3,600	--	--
MW2	07/10/01	101.27	a 21.85	79.42	0.00	5,900	15,000	2,300	12,100	83,000	5,700	<1,500	2,800	--	--
MW2	11/20/01	65.95	b 22.75	43.20	0.00	--	--	--	--	--	--	--	--	--	--
MW2	02/19/02	65.95	b 20.12	45.83	0.00	--	--	--	--	--	--	--	--	--	--
MW2	05/21/02	65.95	b 21.10	44.85	0.00	8,600	25,000	3,500	26,000	150,000	31,000	<3,000	4,800	--	--
MW2	06/27/03	65.95	b 21.48	44.47	0.35	--	--	--	--	--	--	--	--	--	--
MW2	09/29/03	65.95	b 23.04	42.91	0.48	*	*	*	*	*	*	*	*	*	--
MW2 <sup>e</sup>	12/12/03	65.95	b 22.75	43.31	0.16	*	*	*	*	*	*	*	*	*	--
MW2 <sup>e</sup>	03/15/04	65.95	b 19.24	46.72	0.01	*	*	*	*	*	*	*	*	*	--
MW2 <sup>e</sup>	06/24/04	65.95	b 22.10	44.06	0.31	*	*	*	*	*	*	*	*	*	--
MW2 <sup>e</sup>	09/29/04	65.95	b 22.81	43.14	sheen	*	*	*	*	*	*	*	*	*	--
MW2 <sup>e</sup>	12/13/04	65.95	b 22.06	43.95	0.08	3,700	12,000	1,900	10,000	47,000	2,600	<500	1,200	--	--
MW2 <sup>j</sup>	03/14/05	65.95	b 25.00	40.95	0.00	780	3,700	920	6,400	43,000	43,000	<5,000	<200	--	--
MW2	06/15/05	65.95	b 21.14	44.81	0.00	2,900	15,000	2,400	22,000	120,000	13,000	<2,500	810	--	--
MW2	07/18/05	65.95	b NM	NC	NM	2,700	13,000	1,800	15,000	120,000	17,000	--	530	--	--
MW2	09/26/05	65.95	b 22.93	43.02	0.00	570	4,000	620	6,200	31,000	63,000	28,000	<50	--	--
MW2	12/12/05	65.95	b 25.40	40.55	0.00	670	5,300	1,100	9,800	34,000	2,800	<500	65	--	--
MW2	03/29/06	65.95	b 15.66	50.29	sheen	620	2,800	540	4,700	33,000	<4,000	<100	37	--	--
MW2	06/19/06	65.95	b 19.14	46.81	sheen	680	5,200	990	16,000	120,000	<30,000	1,900	170	--	--
MW2	09/29/06	65.95	b 21.16	44.79	0.00	1,200	5,100	1,200	9,300	59,000	<8000	300	230	--	--
MW2	12/12/06	65.95	b 21.46	44.49	0.00	850	4,400	1,100	8,900	45,000	<10000	360	110	--	--
MW2	03/01/07	65.95	b 19.48	46.47	0.00	1,400	5,200	980	9,500	71,000	<18000	460	160	--	--
MW2	06/12/07	65.95	b 20.98	44.97	0.00	1,300	4,900	1,200	8,900	40,000	<3000	<100	130	--	--
MW2	09/25/07	65.95	b 22.57	43.38	0.00	1,400	6,500	1,900	13,000	68,000	<12000	250	240	--	--
MW2	12/20/07	65.95	b 22.70	43.25	0.00	1,400	7,000	2,400	16,000	75,000	<5000	650	270	--	--
MW2	03/26/08	65.95	b 22.51	43.44	0.00	1,400	6,200	1,800	16,000	83,000	<10000	360	480	--	--
MW2	06/03/08	65.95	b 21.85	44.10	0.00	1,900	11,000	2,500	18,000	98,000	<12000	500	660	--	--
MW2	09/25/08	65.95	b 23.30	42.65	0.00	740	3,500	1,700	10,000	46,000	<8000	170	340	180	--
MW2	12/29/08	65.95	b 22.95	43.00	0.00	260	1,500	1,100	6,400	29,000	<4000	<100	110	<50	--
MW2	03/24/09	65.71	l 19.58	46.13	0.00	410	2,000	900	8,900	45,000	<8,000	420	300	210	--
MW2	06/02/09	65.71	l 20.50	45.21	0.00	680	3,100	1,200	10,000	80,000	<12000	480	330	180	--
MW2	09/10/09	65.71	l 22.40	43.31	0.00	700	3,000	1,300	9,400	45,000	<8000	190	370	220	--
MW3	07/27/93	101.29	a 22.28	79.01	0.02	9,100	24,000	5,300	33,000	330,000	--	--	--	--	--
MW3	10/02/97	101.29	a 22.71	78.58	0.03	4,200	11,000	1,800	10,600	36,000	--	--	3,500	--	--
MW3	06/30/98	101.29	a 19.47	81.82	0.00	4,800	11,000	1,200	7,100	51,000	--	--	3,900	--	--
MW3	07/29/98	101.29	a 20.01	81.28	0.00	--	--	--	--	--	--	--	--	--	--
MW3	08/26/98	101.29	a 20.62	80.67	0.00	--	--	--	--	--	--	--	--	--	--
MW3	10/01/98	101.29	a 21.33	79.96	0.00	3,900	8,500	1,200	6,000	38,000	--	--	2,300	--	--
MW3	10/30/98	101.29	a 21.62	79.67	0.00	--	--	--	--	--	--	--	--	--	--
MW3	11/30/98	101.29	a 21.31	79.98	0.00	--	--	--	--	--	--	--	--	--	--
MW3	12/28/98	101.29	a 21.15	80.14	0.06	--	--	--	--	--	--	--	--	--	--
MW3	01/25/99	101.29	a 20.79	80.50	0.00	4,000	10,000	1200	6700	5,100	--	--	2900	--	--
MW3	02/26/99	101.29	a 18.02	83.27	0.00	--	--	--	--	--	--	--	--	--	--
MW3	03/24/99	101.29	a 18.37	82.92	0.00	--	--	--	--	--	--	--	--	--	--
MW3	05/12/99	101.29	a 19.22	82.07	0.0083	--	--	--	--	--	--	--	--	--	--

TABLE 2a CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA  
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)									
						Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA	
MW3	12/15-16/99	101.29	a	22.43	78.86	0.00	*	*	*	*	*	*	*	*	--
MW3	03/20/00	101.29	a	17.14	84.15	0.00	--	--	--	--	--	--	--	--	--
MW3	07/20/00	101.29	a	20.98	80.31	0.00	5,700	14,000	1,600	9,300	69,000	2,900	<300	3,300	--
MW3	10/11/00	101.29	a	22.24	79.05	0.00	--	--	--	--	--	--	--	--	--
MW3	04/10-11/01	101.29	a	20.70	80.59	0.00	7,200	<0.001	2,300	12,900	110,000	4,700	<1,500	4,300	--
MW3	07/10/01	101.29	a	21.97	79.32	0.00	--	--	--	--	--	--	--	--	--
MW3	11/20/01	65.99	b	22.80	43.19	0.00	6,300	16,000	2,400	14,900	100,000	5,900	<900	4,000	--
MW3	02/19/02	65.99	b	20.11	45.88	0.00	--	--	--	--	--	--	--	--	--
MW3	05/21/02	65.99	b	21.20	44.79	0.00	6,500	17,000	2,200	12,700	91,000	14,000	<3,000	2,200	--
MW3	06/27/03	65.99	b	21.32	44.67	sheen	--	--	--	--	--	--	--	--	--
MW3	09/29/03	65.99	b	22.79	43.20	sheen	*	*	*	*	*	*	*	*	--
MW3 <sup>e</sup>	12/12/03	65.99	b	22.73	43.27	0.01	*	*	*	*	*	*	*	*	--
MW3 <sup>e</sup>	03/15/04	65.99	b	19.32	46.67	sheen	*	*	*	*	*	*	*	*	--
MW3	06/24/04	65.99	b	21.99	44.00	0.00	3,400	7,700	1,000	4,800	39,000	1,700	<500	1,100	--
MW3	09/29/04	65.99	b	22.54	43.45	0.00	2,900	6,700	980	4,300	29,000	2,200	<500	1,100	--
MW3	12/13/04	65.99	b	22.06	43.93	0.00	1,700	2,900	790	3,400	17,000	1,300	<500	490	--
MW3 <sup>j</sup>	03/14/05	65.99	b	24.00	41.99	0.00	680	1,700	380	1,600	10,000	670	<500	67	--
MW3	06/15/05	65.99	b	21.13	44.86	0.00	260	960	330	1,400	12,000	1,200	<500	31	--
MW3	07/18/05	65.99	b	NM	NC	NM	1,000	5,600	1,100	4,300	23,000	1,700	--	81	--
MW3	09/26/05	65.99	b	22.92	43.07	0.00	4,000	17,000	1,900	17,000	79,000	5,100	540	270	--
MW3	12/12/05	65.99	b	23.30	42.69	0.00	200	710	450	1,400	7,000	550	<500	<10	--
MW3	03/29/06	65.99	b	15.70	50.29	0.00	110	300	130	490	3,800	<200	<100	13	--
MW3	06/19/06	65.99	b	19.11	46.88	0.00	160	500	320	840	7,000	<300	<100	3.1	--
MW3	09/29/06	65.99	b	21.15	44.84	0.00	1,300	2,300	720	2,900	22,000	<1500	<100	110	--
MW3	12/12/06	65.99	b	21.38	44.61	0.00	1,400	2,200	670	2,600	21,000	<1500	<100	130	--
MW3	03/01/07	65.99	b	19.50	46.49	0.00	1,100	2,500	510	2,200	17,000	<600	<100	51	--
MW3	06/12/07	65.99	b	21.00	44.99	0.00	1,800	4,000	800	3,300	22,000	<1500	<100	150	--
MW3	09/25/07	65.99	b	22.59	43.40	0.00	2,400	5,000	1,000	4,600	29,000	<500	<100	220	--
MW3	12/20/07	65.99	b	22.59	43.40	0.00	2,400	4,900	1,100	4,700	36,000	<2000	<100	240	--
MW3	03/26/08	65.99	b	22.13	43.86	0.00	4,500	11,000	1,700	7,800	54,000	<1500	<100	340	--
MW3	06/03/08	65.99	b	21.81	44.18	0.00	3,900	8,700	1,500	7,000	47,000	<1500	<100	470	--
MW3	09/25/08	65.99	b	23.30	42.69	0.00	1,600	3,700	700	3,300	22,000	<3000	<100	220	180
MW3	12/29/08	65.99	b	22.92	43.07	0.00	310	910	320	1,300	11,000	<1500	<100	35	23
MW3	03/24/09	65.70	l	19.43	46.27	0.00	1,400	4,200	600	2,500	19,000	<1,000	<100	160	60
MW3	06/02/09	65.70	l	20.70	45.00	0.00	2,800	7,600	1,300	5,600	39,000	<1,500	<100	240	180
MW3	09/10/09	65.70	l	22.32	43.38	0.00	1,800	3,900	790	3,500	22,000	<1500	<100	190	110
MW4	06/30/98	98.65	a	16.93	81.72	0.00	2,200	930	850	2,100	10,000	--	--	1,800	--
MW4	07/29/98	98.65	a	17.48	81.17	0.00	--	--	--	--	--	--	--	--	--
MW4	08/26/98	98.65	a	18.65	80.00	0.00	--	--	--	--	--	--	--	--	--
MW4	10/01/98	98.65	a	18.74	79.91	0.00	570	46	130	36	1,100	--	--	1,300	--
MW4	10/30/98	98.65	a	19.02	79.63	0.00	--	--	--	--	--	--	--	--	--
MW4	11/30/98	98.65	a	18.74	79.91	0.00	--	--	--	--	--	--	--	--	--
MW4	12/28/98	98.65	a	18.60	80.05	0.00	--	--	--	--	--	--	--	--	--
MW4	01/25-26/99	98.65	a	18.32	80.33	0.00	230	<8.3	<8.3	<8.3	290	--	--	1,300	--
MW4	02/26/99	98.65	a	15.81	82.84	0.00	--	--	--	--	--	--	--	--	--
MW4	03/24/99	98.65	a	16.01	82.64	0.00	--	--	--	--	--	--	--	--	--
MW4	05/12/99	98.65	a	17.71	80.94	0.00	--	--	--	--	--	--	--	--	--
MW4	12/15-16/99	98.65	a	19.83	78.82	0.00	5.8	<0.50	<0.50	<0.50	<50	--	--	1,400	--
MW4	03/20/00	98.65	a	14.9	83.75	0.00	--	--	--	--	--	--	--	--	--
MW4	07/20/00	98.65	a	18.38	80.27	0.00	91	4.6	19	12.9	210	<50	<300	1,500	--
MW4	10/11/00	98.65	a	19.61	79.04	0.00	--	--	--	--	--	--	--	--	--
MW4	04/10-11/01	98.65	a	17.55	81.10	0.00	110	<5.0	<5.0	<5.0	350	<50	<300	1,100	--
MW4	07/10/01	98.65	a	19.34	79.31	0.00	--	--	--	--	--	--	--	--	--
MW4	11/20/01	63.35	b	20.16	43.19	0.00	<2.5	4	<2.5	3.7	96	<50	<300	2,500	--
MW4	02/19/02	63.35	b	17.34	46.01	0.00	--	--	--	--	--	--	--	--	--

TABLE 2a CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA  
 FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)									
						Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA	
MW4	05/21/02	63.35	b	18.57	44.78	0.00	340	5.7	70	<1.0	940	83	<300	1,600	--
MW4	06/27/03	63.35	b	18.72	44.63	0.00	--	--	--	--	--	--	--	--	--
MW4	09/29/03	63.35	b	20.11	43.24	0.00	<5.0	<5.0	<5.0	<10	1,100	<50	<500	1,700	--
MW4	12/12/03	63.35	b	20.06	43.29	0.00	<13	<13	<13	<25	<1,300	<50	<500	1,000	--
MW4	03/15/04	63.35	b	16.89	46.46	0.00	1.5	<0.50	<0.50	<1.0	54	<50	<500	41	--
MW4	06/24/04	63.35	b	19.31	44.04	0.00	69	<5.0	<5.0	<10	920	<50	<500	1,100	--
MW4	09/29/04	63.35	b	20.20	43.15	0.00	<5.0	<5.0	<5.0	<10	940	<50	<500	1,200	--
MW4	12/13/04	**	b	20.44	NC	0.00	<5.0	<5.0	<5.0	<10	740	<50	<500	860	--
MW4	03/14/05	**	b	18.30	NC	0.00	20	<5.0	<5.0	<10	930	<50	<500	930	--
MW4	06/15/05	**	b	20.03	NC	0.00	350	6.1	<5.0	<10	2100	89	<500	1,100	--
MW4	07/18/05	**	b	NM	NC	NM	11	<5.0	<5.0	<10	540	<50	--	1,100	--
MW4	09/26/05	**	b	21.79	NC	0.00	<5.0	<5.0	<5.0	<10	960	<50	<500	660	--
MW4	12/12/05	**	b	21.89	NC	0.00	<5.0	<5.0	<5.0	<10	820	<50	<500	1,000	--
MW4	03/29/06	**	b	14.85	NC	0.00	49	160	120	300	2,400	<100	<100	130	--
MW4	06/19/06	**	b	17.96	NC	0.00	100	940	540	1,800	8,800	<400	<100	55	--
MW4	09/29/06	63.35	b	19.85	43.50	0.00	18.0	2.6	1.5	3.5	370.0	<50	<100	180	--
MW4	12/12/06	63.35	b	20.03	43.32	0.00	11.0	0.77	<0.5	<0.5	230.0	<50	<100	260	--
MW4	03/01/07	63.35	b	18.33	45.02	0.00	63.0	7.10	40.0	190.0	1,800.0	<50	<100	130	--
MW4	06/12/07	63.35	b	19.70	43.65	0.00	9.3	<0.5	<0.5	<0.5	70.0	<50	<100	150	--
MW4	09/25/07	63.35	b	21.27	42.08	0.00	<0.5	<0.5	<0.5	<0.5	<50	<50	<100	300	--
MW4	12/20/07	63.35	b	21.30	42.05	0.00	<0.5	<0.5	<0.5	<0.5	<50	<50	<100	370	--
MW4	03/26/08	63.35	b	20.89	42.46	0.00	<0.5	<0.5	<0.5	<0.5	<50	<50	<100	260	--
MW4	06/03/08	63.35	b	20.51	42.84	0.00	<0.5	<0.5	<0.5	<0.5	<50	<50	<100	190	--
MW4	09/25/08	63.35	b	22.03	41.32	0.00	<0.5	<0.5	<0.5	<0.5	<50	<50	<100	380	<5.0
MW4	12/29/08	63.35	b	21.62	41.73	0.00	<0.5	<0.5	<0.5	<0.5	<50	<50	<100	230	<5.0
MW4	03/24/09	64.37	l	18.38	45.99	0.00	<0.5	<0.5	<0.5	<0.5	<50	<50	<100	370	<5.0
MW4	06/02/09	64.37	l	19.32	45.05	0.00	0.64	<0.5	<0.5	<0.5	<50	<50	<100	320	<5.0
MW4	09/10/09	64.37	l	21.00	43.37	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	280	< 5.0
MW5	06/30/98	100.9	a	20.60	80.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	23	--
MW5	07/29/98	100.9	a	21.52	79.38	0.00	--	--	--	--	--	--	--	--	--
MW5	08/26/98	100.9	a	22.21	78.69	0.00	--	--	--	--	--	--	--	--	--
MW5	10/01/98	100.9	a	22.95	77.95	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	--
MW5	10/30/98	100.9	a	23.23	77.67	0.00	--	--	--	--	--	--	--	--	--
MW5	11/30/98	100.9	a	23.12	77.78	0.00	--	--	--	--	--	--	--	--	--
MW5	12/28/98	100.9	a	23.18	77.72	0.00	--	--	--	--	--	--	--	--	--
MW5	01/25-26/99	100.9	a	22.61	78.29	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	--
MW5	02/26/99	100.9	a	19.78	81.12	0.00	--	--	--	--	--	--	--	--	--
MW5	03/24/99	100.9	a	20.25	80.65	0.00	--	--	--	--	--	--	--	--	--
MW5	05/12/99	100.9	a	21.06	79.84	0.00	--	--	--	--	--	--	--	--	--
MW5	12/15-16/99	100.9	a	24.19	76.71	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	<0.50	--
MW5	03/20/00	100.9	a	19.15	81.75	0.00	--	--	--	--	--	--	--	--	--
MW5	07/20/00	100.9	a	21.84	79.06	0.00	<0.50	0.98	<0.50	<0.50	<50	<50	<300	1.9	--
MW5	10/11/00	100.9	a	23.4	77.50	0.00	--	--	--	--	--	--	--	--	--
MW5	04/10-11/01	100.9	a	22.3	78.60	0.00	<0.50	2.6	<0.50	0.6	<50	<50	<300	1.5	--
MW5	07/10/01	100.9	a	23.64	77.26	0.00	--	--	--	--	--	--	--	--	--
MW5	11/20/01	65.59	b	24.65	40.94	0.00	0.83	12	1.2	11	140	860	2,500	10	--
MW5	02/19/02	65.59	b	22.37	43.22	0.00	--	--	--	--	--	--	--	--	--
MW5	05/21/02	65.59	b	23.10	42.49	0.00	<0.50	<0.50	<0.50	<0.50	<50	2,200	<300	<2.0	--
MW5	06/27/03	65.59	b	23.07	42.52	0.00	--	--	--	--	--	--	--	--	--
MW5	09/29/03	65.59	b	24.38	41.21	0.00	<0.50	0.52	7.1	35	100	<50	<500	1.4	--
MW5	12/12/03	65.59	b	23.90	41.69	0.00	<0.50	<0.50	<0.50	<1	<50	<50	<500	1.5	--
MW5	03/15/04	65.59	b	20.82	44.77	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--
MW5	06/24/04	65.59	b	23.57	42.02	0.00	<0.50	<0.50	<0.50	<1.0	<50	130	<500	0.79	--
MW5	09/29/04	65.59	b	24.44	41.15	0.00	--	--	--	--	--	--	--	--	--
MW5	12/13/04	65.59	b	23.87	41.72	0.00	--	--	--	--	--	--	--	--	--

TABLE 2a CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA  
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)								
						Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA
MW5	03/14/05	65.59	b 20.18	45.41	0.00	<0.50	1.3	1.5	8.6	82	<50	<500	<0.50	--
MW5	06/15/05	65.59	b 12.96	52.63	0.00	--	--	--	--	--	--	--	--	--
MW5	09/26/05	65.59	b 23.60	41.99	0.00	--	--	--	--	--	--	--	--	--
MW5	12/12/05	65.59	b 23.84	41.75	0.00	--	--	--	--	--	--	--	--	--
MW5	03/29/06	65.59	b 17.19	48.40	0.00	<0.50	<0.50	<0.50	<0.50	73	<50	<100	<0.50	--
MW5	06/19/06	65.59	b 20.22	45.37	0.00	--	--	--	--	--	--	--	--	--
MW5	09/29/06	65.59	b 22.80	42.79	0.00	--	--	--	--	--	--	--	--	--
MW5	12/12/06	65.59	b 23.08	42.51	0.00	--	--	--	--	--	--	--	--	--
MW5	03/01/07	65.59	b 21.02	44.57	0.00	<0.50	<0.50	<0.50	<0.50	54	<50	<100	<0.50	--
MW5	06/12/07	65.59	b 22.78	42.81	0.00	--	--	--	--	--	--	--	--	--
MW5	09/25/07	65.59	b 24.45	41.14	0.00	<0.50	1.5	<0.50	<0.50	<50	<50	<100	0.64	--
MW5	12/20/07	65.59	b 24.52	41.07	0.00	--	--	--	--	--	--	--	--	--
MW5	03/26/08	65.59	b 24.08	41.51	0.00	<0.50	1.5	<0.50	<0.50	<50	<50	<100	<0.5	--
MW5	06/03/08	65.59	b 23.68	41.91	0.00	--	--	--	--	--	--	--	--	--
MW5	09/25/08	65.59	b 25.00	40.59	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	0.66	<5.0
MW5	12/29/08	65.59	b 24.92	40.67	0.00	<0.50	<0.50	<0.50	<0.50	71	<50	<100	<0.5	<5.0
MW5	03/24/09	65.59	l 21.85	43.74	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	0.54	<5.0
MW5	06/02/09	65.59	l 22.70	42.89	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.5	<5.0
MW5	09/10/09	65.59	l 24.12	41.47	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	0.56	<5.0
MW6	07/20/00	96.60	a 18.30	78.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	160	--
MW6	10/11/00	96.60	a 18.69	77.91	0.00	--	--	--	--	--	--	--	--	--
MW6	04/10-11/01	96.60	a 17.85	78.75	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	180	--
MW6	07/10/01	96.60	a 18.43	78.17	0.00	--	--	--	--	--	--	--	--	--
MW6	11/20/01	59.60	b 18.67	40.93	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	450	--
MW6	02/19/02	59.60	b 17.40	42.20	0.00	--	--	--	--	--	--	--	--	--
MW6	05/21/02	59.60	b 17.68	41.92	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	170	--
MW6	06/27/03	59.60	b 17.73	41.87	0.00	--	--	--	--	--	--	--	--	--
MW6	09/29/03	59.60	b 18.48	41.12	0.00	<1.0	<1.0	<1.0	<2.0	230	<50	<500	340	--
MW6	12/12/03	59.60	b 17.89	41.71	0.00	<2.5	<2.5	<2.5	<5.0	<250	51	<500	190	--
MW6	03/15/04	59.60	b 16.46	43.14	0.00	<1.0	<1.0	<1.0	<2.0	200	<50	<500	220	--
MW6	06/24/04	59.60	b 17.97	41.63	0.00	<1.0	<1.0	<1.0	<2.0	130	<50	<500	190	--
MW6	09/29/04	59.60	b 18.55	41.05	0.00	<0.50	0.61	<0.50	1.2	210	<50	<500	190	--
MW6	12/13/04	59.60	b 17.88	41.72	0.00	--	--	--	--	--	--	--	--	--
MW6	03/14/05	59.60	b 16.82	42.78	0.00	<0.50	<0.50	<0.50	1.8	160	<50	<500	190	--
MW6	06/15/05	59.60	b 17.60	42.00	0.00	--	--	--	--	--	--	--	--	--
MW6	09/26/05	59.60	b NM	NM	0.00	--	--	--	--	--	--	--	--	--
MW6	12/12/05	59.60	b 18.33	41.27	0.00	0.62	<0.50	<0.50	1.0	81	<50	<500	140	--
MW6	03/29/06	59.60	b 14.53	45.07	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	120	--
MW6	06/19/06	59.60	b 16.46	43.14	0.00	--	--	--	--	--	--	--	--	--
MW6	09/29/06	59.60	b 17.60	42.00	0.00	0.87	<0.50	<0.50	<0.50	<50	<50	<100	140	--
MW6	12/12/06	59.60	b 16.93	42.67	0.00	0.67	<0.50	<0.50	<0.50	<50	<50	230	89	--
MW6	03/01/07	59.60	b 16.30	43.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	78	--
MW6	06/12/07	59.60	b 17.38	42.22	0.00	--	--	--	--	--	--	--	--	--
MW6	09/25/07	59.60	b 18.36	41.24	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	89	--
MW6	12/20/07	59.60	b 17.90	41.70	0.00	--	--	--	--	--	--	--	--	--
MW6	03/26/08	59.60	b 17.37	42.23	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	68	--
MW6	06/03/08	59.60	b 17.11	42.49	0.00	--	--	--	--	--	--	--	--	--
MW6	09/25/08	59.60	b 18.82	40.78	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	78	<5.0
MW6	12/29/08	59.60	b 18.30	41.30	0.00	0.77	<0.50	<0.50	<0.50	<50	<50	<100	44	<5.0
MW6	03/24/09	59.60	l 16.80	42.80	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	51	<5.0
MW6	06/02/09	59.60	l 17.27	42.33	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	59	<5.0
MW6	09/10/09	59.60	l 18.20	41.40	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	73	<5.0
MW7	07/20/00	96.75	a 15.93	80.82	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<0.50	--
MW7	10/11/00	96.75	a 16.90	79.85	0.00	--	--	--	--	--	--	--	--	--



TABLE 2a CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA  
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)									
						Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA	
MW7	04/10-11/01	96.75	a	15.80	80.95	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<0.50	--
MW7	07/10/01	96.75	a	16.71	80.04	0.00	--	--	--	--	--	--	--	--	--
MW7	11/20/01	59.47	b	16.17	43.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<2.0	--
MW7	02/19/02	59.47	b	14.92	44.55	0.00	--	--	--	--	--	--	--	--	--
MW7	05/21/02	59.47	b	15.18	44.29	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<0.50	--
MW7	06/27/03	59.47	b	16.28	43.19	0.00	--	--	--	--	--	--	--	--	--
MW7	09/29/03	59.47	b	16.88	42.59	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	0.62	--
MW7	12/12/03	59.47	b	14.95	44.52	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--
MW7	03/15/04	59.47	b	14.77	44.70	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--
MW7	06/24/04	59.47	b	16.33	43.14	0.00	<0.50	<0.50	<0.50	<1.0	<50	300	<500	<0.50	--
MW7	09/29/04	59.47	b	16.88	42.59	0.00	--	--	--	--	--	--	--	--	--
MW7	12/13/04	59.47	b	15.26	44.21	0.00	--	--	--	--	--	--	--	--	--
MW7	03/14/05	59.47	b	15.00	44.47	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--
MW7	06/15/05	59.47	b	15.32	44.15	0.00	--	--	--	--	--	--	--	--	--
MW7	09/26/05	59.47	b	NM	NM	0.00	--	--	--	--	--	--	--	--	--
MW7	12/12/05	59.47	b	15.99	43.48	0.00	--	--	--	--	--	--	--	--	--
MW7	03/29/06	59.47	b	12.65	46.82	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	--
MW7	06/19/06	59.47	b	14.49	44.98	0.00	--	--	--	--	--	--	--	--	--
MW7	09/29/06	59.47	b	16.67	42.80	0.00	--	--	--	--	--	--	--	--	--
MW7	12/12/06	59.47	b	15.21	44.26	0.00	--	--	--	--	--	--	--	--	--
MW7	03/01/07	59.47	b	14.68	44.79	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	--
MW7	06/12/07	59.47	b	16.2	43.27	0.00	--	--	--	--	--	--	--	--	--
MW7	09/25/07	59.47	b	16.72	42.75	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	--
MW7	12/20/07	59.47	b	15.02	44.45	0.00	--	--	--	--	--	--	--	--	--
MW7	03/26/08	59.47	b	15.95	43.52	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	--
MW7	06/03/08	59.47	b	14.24	45.23	0.00	--	--	--	--	--	--	--	--	--
MW7	09/25/08	59.47	b	17.07	42.40	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	<5.0
MW7	12/29/08	59.47	b	15.64	43.83	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	<5.0
MW7	03/24/09	59.49	l	14.57	44.92	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	<5.0
MW7	06/02/09	59.49	l	16.10	43.39	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	<5.0
MW7	09/10/09	59.49	l	17.10	42.39	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	<5.0
MW8	12/29/08	NS	b	15.71	NC	0.00	<0.50	0.64	<0.50	0.78	<50	<50	<100	1.5	<5.0
MW8	03/24/09	57.07	l	16.08	40.99	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	<5.0
MW8	06/02/09	57.07	l	15.46	41.61	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	<0.50	<5.0
MW8	09/10/09	57.07	l	15.58	41.49	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<100	2.4	<5.0
MW9A	09/10/09	--	ns	22.51	--	0.00	7,800	33,000	4,500	25,000	160,000	<20,000	410	1,800	780
MW9B	09/10/09	--	ns	22.30	--	0.00	640	4,500	1,100	6,500	36,000	<3,000	<100	61	<50
O1	09/10/09	--	ns	22.44	--	0.00	960	2,400	1,000	4,600	23,000	<1,500	<100	180	84

TABLE 2a CUMULATIVE GROUNDWATER ELEVATION AND ANALYTICAL DATA  
 FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)	Depth to Water (feet)	GW Elevation (feet)	SPH Thickness (feet)	Concentration (µg/L)					
						Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d

- SPH Separate-phase hydrocarbons.
- GW Groundwater.
- TPH-g Total Petroleum Hydrocarbons as gasoline.
- TPH-d Total Petroleum Hydrocarbons as diesel.
- TPH-mo Total Petroleum Hydrocarbons as motor oil.
- MTBE Methyl tertiary butyl ether.
- TBA Tertiary Butyl Alcohol
- NC Not calculated.
- ns Not yet surveyed
- µg/L Micrograms per liter.
- \* SPH present; not sampled.
- \*\* Well MW4 elevation modified due to site renovation activities. Not Surveyed.
- Not analyzed or not sampled.
- < Less than the laboratory reporting limits.
- a Elevations are referenced to monitoring well MW1, with assumed datum of 100.00 feet.
- b Elevations based on a survey conducted August 2002 and referenced benchmark with known elevation (NGVD 29) of 60.40 feet above mean sea level.
- c Analysis not conducted due to broken sample containers.
- d Hydrocarbon reported in the gasoline range does not match laboratory gasoline standard.
- e Groundwater elevation in wells with LPH are corrected by multiplying the specific gravity of gasoline (0.69) by the LPH thickness and adding this value to the water elevation.
- f Hydrocarbon reported is in the early diesel range, and does not match the laboratory diesel standard.
- g Sample contained discrete peak in gasoline range and identified by lab as MTBE.
- h Quantity of unknown hydrocarbon(s) in sample based on diesel.
- i The concentration reported reflect(s) individual or discrete unidentified peaks not matching a typical fuel pattern.
- j Depth to groundwater is based on the depth of the stingers.
- k Quantity of unknown hydrocarbon(s) in sample based on motor oil.
- l Resurveyed Prior to 1st Quarter 2009 Measurements

TABLE 2b NATURAL ATTENUATION PARAMETERS  
 FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Concentration (mg/L)											
		CO <sub>2</sub> (lab)	DO (field)	ORP (mv) (field)	pH (field)	COD	Mn	SO <sub>4</sub>	N-NH <sub>3</sub>	NO <sub>2</sub> -N	N-NO <sub>3</sub>	N	o-PO <sub>4</sub>
MW1	07/27/93	--	--	--	--	--	--	--	--	--	--	--	--
MW1	10/02/97	--	--	--	--	--	--	--	--	--	--	--	--
MW1	06/30/98	204	5	--	6.16	--	0.046	55	<0.10	--	<0.10	<0.10	2
MW1	07/29/98	--	--	--	--	--	--	--	--	--	--	--	--
MW1	08/26/98	--	--	--	--	--	--	--	--	--	--	--	--
MW1	10/01/98	192	3.6	--	6.49	--	--	--	--	--	--	--	--
MW1	10/30/98	--	--	--	--	--	--	--	--	--	--	--	--
MW1	11/30/98	--	--	--	--	--	--	--	--	--	--	--	--
MW1	12/28/98	--	--	--	--	--	--	--	--	--	--	--	--
MW1	01/25/99	389	3.4	--	6.72	--	--	--	--	--	--	--	--
MW1	02/26/99	--	--	--	--	--	--	--	--	--	--	--	--
MW1	03/24/99	--	--	--	--	--	--	--	--	--	--	--	--
MW1	05/12/99	--	--	--	--	--	--	--	--	--	--	--	--
MW1	12/15/99	--	3.31	--	6.52	--	--	--	--	--	--	--	--
MW1	03/20/00	--	--	--	--	--	--	--	--	--	--	--	--
MW1	07/20/00	120	7.37	--	6.66	--	<0.01	54	<0.10	--	3.4	3.4	<0.2
MW1	10/11/00	--	--	--	--	--	--	--	--	--	--	--	--
MW1	04/10-11/01	117	NR	--	NR	--	0.045	57	<0.10	--	6.6	6.6	0.15
MW1	07/10/01	--	--	--	--	--	--	--	--	--	--	--	--
MW1	11/20/01	-- <sup>c</sup>	0.65	--	6.47	--	1.8	63	<0.10	--	--	--	<0.20
MW1	02/19/02	--	--	--	--	--	--	--	--	--	--	--	--
MW1	05/21/02	120	0.96	--	6.25	--	0.5	58	<0.10	--	5.5	5.5	<0.20
MW1	06/27/03	--	--	--	--	--	--	--	--	--	--	--	--
MW1	09/29/03	--	--	--	--	--	--	--	--	--	--	--	--
MW1	12/12/03	--	--	--	--	--	--	--	--	--	--	--	--
MW1	03/15/04	--	0.14	--	--	--	--	--	--	--	--	--	--
MW1	06/24/04	--	0.15	--	--	--	--	--	--	--	--	--	--
MW1	09/29/04	--	1.01	--	6.42	--	--	--	--	--	--	--	--
MW1	12/13/04	--	--	--	--	--	--	--	--	--	--	--	--
MW1	03/14/05	--	1.96	--	6.04	--	--	--	--	--	--	--	--
MW1	06/15/05	--	--	--	--	--	--	--	--	--	--	--	--
MW1	09/26/05	--	1.84	317.4	6.43	--	--	--	--	--	--	--	--
MW1	12/12/05	--	--	--	--	--	--	--	--	--	--	--	--
MW1	03/29/06	--	1.57	--	6.73	--	--	--	--	--	--	--	--
MW1	06/19/06	--	--	--	--	--	--	--	--	--	--	--	--
MW1	09/29/06	--	0.43	--	6.40	--	--	--	--	--	--	--	--
MW1	12/12/06	--	0.38	--	6.39	--	--	--	--	--	--	--	--
MW1	03/01/07	--	0.86	--	6.39	--	--	--	--	--	--	--	--
MW1	06/12/07	--	--	--	--	--	--	--	--	--	--	--	--
MW1	09/25/07	--	16.87	--	6.40	--	--	--	--	--	--	--	--
MW1	12/20/07	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 2b NATURAL ATTENUATION PARAMETERS  
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Concentration (mg/L)											
		CO <sub>2</sub> (lab)	DO (field)	ORP (mv) (field)	pH (field)	COD	Mn	SO <sub>4</sub>	N-NH <sub>3</sub>	NO <sub>2</sub> -N	N-NO <sub>3</sub>	N	o-PO <sub>4</sub>
MW2	10/30/98	--	--	--	--	--	--	--	--	--	--	--	--
MW2	11/30/98	--	--	--	--	--	--	--	--	--	--	--	--
MW2	12/28/98	--	--	--	--	--	--	--	--	--	--	--	--
MW2	01/25/99	386	0.3	--	6.69	--	--	--	--	--	--	--	--
MW2	02/26/99	--	--	--	--	--	--	--	--	--	--	--	--
MW2	03/24/99	--	--	--	--	--	--	--	--	--	--	--	--
MW2	05/12/99	--	--	--	--	--	--	--	--	--	--	--	--
MW2	12/15-16/99	*	*	*	*	--	*	*	*	--	*	--	*
MW2	03/20/00	--	--	--	--	--	--	--	--	--	--	--	--
MW2	07/20/00	*	0.88	*	6.37	--	*	*	*	--	*	--	*
MW2	10/11/00	--	--	--	--	--	--	--	--	--	--	--	--
MW2	04/10-11/01	168	NR	--	NR	--	2.5	16	0.14	--	0.19	--	<0.20
MW2	07/10/01	--	--	--	--	--	--	--	--	--	--	--	--
MW2	11/20/01	120	NR	--	6.15	--	2	16	<0.10	--	--	--	<0.20
MW2	02/19/02	--	--	--	--	--	--	--	--	--	--	--	--
MW2	05/21/02	160	0.88	--	5.99	--	1.7	13	<0.10	--	0.54	--	<0.20
MW2	06/27/03	--	--	--	--	--	--	--	--	--	--	--	--
MW2	09/29/03	*	*	*	*	--	*	*	*	--	*	--	*
MW2 <sup>e</sup>	12/12/03	*	*	*	*	--	*	*	*	--	*	--	*
MW2 <sup>e</sup>	03/15/04	*	*	*	*	--	*	*	*	--	*	--	*
MW2 <sup>e</sup>	06/24/04	*	*	*	*	--	*	*	*	--	*	--	*
MW2 <sup>e</sup>	09/29/04	*	*	*	*	--	*	*	*	--	*	--	*
MW2 <sup>e</sup>	12/13/04	*	0.27	*	6.63	--	*	*	*	--	*	--	*
MW2 <sup>l</sup>	03/14/05	*	*	*	*	--	*	*	*	--	*	--	*
MW2	06/15/05	--	3.05	-147.6	--	--	--	--	--	--	--	--	--
MW2	07/18/05	--	--	--	--	--	--	--	--	--	--	--	--
MW2	09/26/05	--	--	--	--	--	--	--	--	--	--	--	--
MW2	12/12/05	--	--	--	--	--	--	--	--	--	--	--	--
MW2	03/29/06	--	7.59	--	6.9	--	--	--	--	--	--	--	--
MW2	06/19/06	--	1.78	--	6.21	--	--	--	--	--	--	--	--
MW2	09/29/06	--	1.71	--	6.66	--	--	--	--	--	--	--	--
MW2	12/12/06	--	1.5	--	6.61	--	--	--	--	--	--	--	--
MW2	03/01/07	--	1.2	--	6.7	--	--	--	--	--	--	--	--
MW2	06/12/07	--	1.12	--	6.7	--	--	--	--	--	--	--	--
MW2	09/25/07	--	2.52	--	6.57	--	--	--	--	--	--	--	--
MW2	12/20/07	--	1.1	--	6.47	--	--	--	--	--	--	--	--
MW2	03/26/08	--	4.13	-5.7	6.18	--	--	--	--	--	--	--	--
MW2	06/03/08	--	0.91	-24.6	6.43	--	--	--	--	--	--	--	--
MW2	09/25/08	--	1.3	-146	6.1	--	--	--	--	--	--	--	--
MW2	12/29/08	--	1.2	-80	6.4	--	--	--	--	--	--	--	--
MW2	03/24/09	--	0.9	-61	6.9	--	--	--	--	--	--	--	--
MW2	06/02/09	--	1.4	-60	5.7	--	--	--	--	--	--	--	--
MW2	09/10/09	--	1.3	-44	7.4	71	--	--	--	<0.1	0.58	1.4	<0.1
MW3	07/27/93	--	--	--	--	--	--	--	--	--	--	--	--
MW3	10/02/97	--	--	--	--	--	--	--	--	--	--	--	--
MW3	06/30/98	300	2	--	6.03	--	9.8	13	1.4	--	<0.10	--	2.4
MW3	07/29/98	--	--	--	--	--	--	--	--	--	--	--	--
MW3	08/26/98	--	--	--	--	--	--	--	--	--	--	--	--
MW3	10/01/98	240	2	--	6.65	--	--	--	--	--	--	--	--
MW3	10/30/98	--	--	--	--	--	--	--	--	--	--	--	--
MW3	11/30/98	--	--	--	--	--	--	--	--	--	--	--	--
MW3	12/28/98	--	--	--	--	--	--	--	--	--	--	--	--
MW3	01/25/99	238	1	--	7.01	--	--	--	--	--	--	--	--
MW3	02/26/99	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 2b NATURAL ATTENUATION PARAMETERS  
 FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Concentration (mg/L)											
		CO <sub>2</sub> (lab)	DO (field)	ORP (mv) (field)	pH (field)	COD	Mn	SO <sub>4</sub>	N-NH <sub>3</sub>	NO <sub>2</sub> -N	N-NO <sub>3</sub>	N	o-PO <sub>4</sub>
MW3	03/24/99	--	--	--	--	--	--	--	--	--	--	--	--
MW3	05/12/99	--	--	--	--	--	--	--	--	--	--	--	--
MW3	12/15-16/99	*	*	*	*	--	*	*	*	--	*	--	*
MW3	03/20/00	--	--	--	--	--	--	--	--	--	--	--	--
MW3	07/20/00	128	2.05	--	6.73	--	6.6	20	<0.10	--	0.55	--	<0.20
MW3	10/11/00	--	--	--	--	--	--	--	--	--	--	--	--
MW3	04/10-11/01	137	NR	--	NR	--	6	8.2	<0.10	--	0.13	--	<0.20
MW3	07/10/01	--	--	--	--	--	--	--	--	--	--	--	--
MW3	11/20/01	120	2.93	--	6.67	--	12	31	<0.10	--	--	--	<0.20
MW3	02/19/02	--	--	--	--	--	--	--	--	--	--	--	--
MW3	05/21/02	130	1.01	--	6.62	--	9.6	25	<0.10	--	0.77	--	<0.20
MW3	06/27/03	--	--	--	--	--	--	--	--	--	--	--	--
MW3	09/29/03	*	*	*	*	--	*	*	*	--	*	--	*
MW3 <sup>e</sup>	12/12/03	*	*	*	*	--	*	*	*	--	*	--	*
MW3 <sup>e</sup>	03/15/04	*	*	*	*	--	*	*	*	--	*	--	*
MW3	06/24/04	--	0.07	--	--	--	--	--	--	--	--	--	--
MW3	09/29/04	--	0.80	--	6.42	--	--	--	--	--	--	--	--
MW3	12/13/04	--	0.16	--	6.7	--	--	--	--	--	--	--	--
MW3 <sup>1</sup>	03/14/05	--	--	--	--	--	--	--	--	--	--	--	--
MW3	06/15/05	--	1.93	-150.4	--	--	--	--	--	--	--	--	--
MW3	07/18/05	--	--	--	--	--	--	--	--	--	--	--	--
MW3	09/26/05	--	--	--	--	--	--	--	--	--	--	--	--
MW3	12/12/05	--	--	--	--	--	--	--	--	--	--	--	--
MW3	03/29/06	--	1.23	--	6.89	--	--	--	--	--	--	--	--
MW3	06/19/06	--	2.30	--	6.40	--	--	--	--	--	--	--	--
MW3	09/29/06	--	1.05	--	6.78	--	--	--	--	--	--	--	--
MW3	12/12/06	--	0.6	--	6.72	--	--	--	--	--	--	--	--
MW3	03/01/07	--	1.11	--	6.76	--	--	--	--	--	--	--	--
MW3	06/12/07	--	0.97	--	6.74	--	--	--	--	--	--	--	--
MW3	09/25/07	--	1.62	--	6.63	--	--	--	--	--	--	--	--
MW3	12/20/07	--	0.9	--	6.62	--	--	--	--	--	--	--	--
MW3	03/26/08	--	2.2	3.1	6.35	--	--	--	--	--	--	--	--
MW3	06/03/08	--	0.88	-29.2	6.64	--	--	--	--	--	--	--	--
MW3	09/25/08	--	1.5	-176	6.00	--	--	--	--	--	--	--	--
MW3	12/29/08	--	1.6	-112	6.50	--	--	--	--	--	--	--	--
MW3	03/24/09	--	0.5	-129	7.00	--	--	--	--	--	--	--	--
MW3	06/02/09	--	1.1	-67	5.80	--	--	--	--	--	--	--	--
MW3	09/10/09	--	1.3	-79	7.70	30	--	--	--	<0.1	0.41	0.56	<0.1
MW4	06/30/98	222	2.6	--	6.18	--	4.3	14	0.8	--	0.8	--	1.5
MW4	07/29/98	--	--	--	--	--	--	--	--	--	--	--	--
MW4	08/26/98	--	--	--	--	--	--	--	--	--	--	--	--
MW4	10/01/98	320	3.4	--	<0.001	--	--	--	--	--	--	--	--
MW4	10/30/98	--	--	--	--	--	--	--	--	--	--	--	--
MW4	11/30/98	--	--	--	--	--	--	--	--	--	--	--	--
MW4	12/28/98	--	--	--	--	--	--	--	--	--	--	--	--
MW4	01/25-26/99	475	6.7	--	7	--	--	--	--	--	--	--	--
MW4	02/26/99	--	--	--	--	--	--	--	--	--	--	--	--
MW4	03/24/99	--	--	--	--	--	--	--	--	--	--	--	--
MW4	05/12/99	--	--	--	--	--	--	--	--	--	--	--	--
MW4	12/15-16/99	--	1.75	--	7.02	--	--	--	--	--	--	--	--
MW4	03/20/00	--	--	--	--	--	--	--	--	--	--	--	--
MW4	07/20/00	126	3.88	--	6.67	--	5.3	11	<0.10	--	0.04	--	<0.20
MW4	10/11/00	--	--	--	--	--	--	--	--	--	--	--	--
MW4	04/10-11/01	107	NR	--	NR	--	6.3	10	<0.10	--	<0.05	--	<0.20

TABLE 2b NATURAL ATTENUATION PARAMETERS  
 FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Concentration (mg/L)											
		CO <sub>2</sub> (lab)	DO (field)	ORP (mv) (field)	pH (field)	COD	Mn	SO <sub>4</sub>	N-NH <sub>3</sub>	NO <sub>2</sub> -N	N-NO <sub>3</sub>	N	o-PO <sub>4</sub>
MW4	07/10/01	--	--	--	--	--	--	--	--	--	--	--	--
MW4	11/20/01	130	0.83	--	6.51	--	10	11	<0.10	--	--	--	<0.20
MW4	02/19/02	--	--	--	--	--	--	--	--	--	--	--	--
MW4	05/21/02	150	1.65	--	6.32	--	8.4	9	<0.10	--	0.06	--	<0.20
MW4	06/27/03	--	--	--	--	--	--	--	--	--	--	--	--
MW4	09/29/03	--	--	--	--	--	--	--	--	--	--	--	--
MW4	12/12/03	--	--	--	--	--	--	--	--	--	--	--	--
MW4	03/15/04	--	0.16	--	--	--	--	--	--	--	--	--	--
MW4	06/24/04	--	0.15	--	--	--	--	--	--	--	--	--	--
MW4	09/29/04	--	0.13	--	6.63	--	--	--	--	--	--	--	--
MW4	12/13/04	--	0.58	--	6.84	--	--	--	--	--	--	--	--
MW4	03/14/05	--	0.28	--	6.34	--	--	--	--	--	--	--	--
MW4	06/15/05	--	0.46	-98.9	--	--	--	--	--	--	--	--	--
MW4	07/18/05	--	--	--	--	--	--	--	--	--	--	--	--
MW4	09/26/05	--	2.20	210.4	6.73	--	--	--	--	--	--	--	--
MW4	12/12/05	--	2.05	--	6.62	--	--	--	--	--	--	--	--
MW4	03/29/06	--	1.07	--	6.82	--	--	--	--	--	--	--	--
MW4	06/19/06	--	2.49	--	5.76	--	--	--	--	--	--	--	--
MW4	09/29/06	--	0.25	--	6.66	--	--	--	--	--	--	--	--
MW4	12/12/06	--	0.90	--	6.61	--	--	--	--	--	--	--	--
MW4	03/01/07	--	0.76	--	6.6	--	--	--	--	--	--	--	--
MW4	06/12/07	--	1.06	--	6.9	--	--	--	--	--	--	--	--
MW4	09/25/07	--	6.67	--	6.59	--	--	--	--	--	--	--	--
MW4	12/20/07	--	1.45	--	6.57	--	--	--	--	--	--	--	--
MW4	03/26/08	--	4.56	65	6.35	--	--	--	--	--	--	--	--
MW4	06/03/08	--	1.34	101.3	6.49	--	--	--	--	--	--	--	--
MW4	09/25/08	--	2.2	-134	6.1	--	--	--	--	--	--	--	--
MW4	12/29/08	--	2.9	-7	6.4	--	--	--	--	--	--	--	--
MW4	03/24/09	--	0.9	33	6.8	--	--	--	--	--	--	--	--
MW4	06/02/09	--	1.1	78	5.73	--	--	--	--	--	--	--	--
MW4	09/10/09	--	1.7	183	7	--	--	--	--	--	--	--	--
MW5	06/30/98	220	4.3	--	6.1	--	--	--	--	--	--	--	--
MW5	07/29/98	--	--	--	--	--	--	--	--	--	--	--	--
MW5	08/26/98	--	--	--	--	--	--	--	--	--	--	--	--
MW5	10/01/98	256	4.8	--	6.71	--	--	--	--	--	--	--	--
MW5	10/30/98	--	--	--	--	--	--	--	--	--	--	--	--
MW5	11/30/98	--	--	--	--	--	--	--	--	--	--	--	--
MW5	12/28/98	--	--	--	--	--	--	--	--	--	--	--	--
MW5	01/25-26/99	305	9.7	--	7.04	--	--	--	--	--	--	--	--
MW5	02/26/99	--	--	--	--	--	--	--	--	--	--	--	--
MW5	03/24/99	--	--	--	--	--	--	--	--	--	--	--	--
MW5	05/12/99	--	--	--	--	--	--	--	--	--	--	--	--
MW5	12/15-16/99	--	2.72	--	7.19	--	--	--	--	--	--	--	--
MW5	03/20/00	--	--	--	--	--	--	--	--	--	--	--	--
MW5	07/20/00	134	5.58	--	6.35	--	0.017	49	<0.10	--	3.9	--	<0.20
MW5	10/11/00	--	--	--	--	--	--	--	--	--	--	--	--
MW5	04/10-11/01	183	66	--	NR	--	0.042	45	<0.10	--	2.9	--	0.11
MW5	07/10/01	--	--	--	--	--	--	--	--	--	--	--	--
MW5	11/20/01	-- <sup>c</sup>	66	--	6.01	--	2.5	42	<0.10	--	--	--	<0.20
MW5	02/19/02	--	--	--	--	--	--	--	--	--	--	--	--
MW5	05/21/02	140	66	--	6.3	--	0.22	44	<0.10	--	3	--	<0.20
MW5	06/27/03	--	--	--	--	--	--	--	--	--	--	--	--
MW5	09/29/03	--	--	--	--	--	--	--	--	--	--	--	--
MW5	12/12/03	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 2b NATURAL ATTENUATION PARAMETERS  
 FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Concentration (mg/L)											
		CO <sub>2</sub> (lab)	DO (field)	ORP (mv) (field)	pH (field)	COD	Mn	SO <sub>4</sub>	N-NH <sub>3</sub>	NO <sub>2</sub> -N	N-NO <sub>3</sub>	N	o-PO <sub>4</sub>
MW5	03/15/04	--	6.4	--	--	--	--	--	--	--	--	--	--
MW5	06/24/04	--	5.56	--	--	--	--	--	--	--	--	--	--
MW5	09/29/04	--	--	--	--	--	--	--	--	--	--	--	--
MW5	12/13/04	--	--	--	--	--	--	--	--	--	--	--	--
MW5	03/14/05	--	3.91	--	5.57	--	--	--	--	--	--	--	--
MW5	06/15/05	--	--	--	--	--	--	--	--	--	--	--	--
MW5	09/26/05	--	--	--	--	--	--	--	--	--	--	--	--
MW5	12/12/05	--	--	--	--	--	--	--	--	--	--	--	--
MW5	03/29/06	--	2.3	--	6.3	--	--	--	--	--	--	--	--
MW5	06/19/06	--	--	--	--	--	--	--	--	--	--	--	--
MW5	09/29/06	--	--	--	--	--	--	--	--	--	--	--	--
MW5	12/12/06	--	--	--	--	--	--	--	--	--	--	--	--
MW5	03/01/07	--	4.35	--	6.08	--	--	--	--	--	--	--	--
MW5	06/12/07	--	--	--	--	--	--	--	--	--	--	--	--
MW5	09/25/07	--	18.71	--	6.26	--	--	--	--	--	--	--	--
MW5	12/20/07	--	--	--	--	--	--	--	--	--	--	--	--
MW5	03/26/08	--	7.93	88	5.86	--	--	--	--	--	--	--	--
MW5	06/03/08	--	--	--	--	--	--	--	--	--	--	--	--
MW5	09/25/08	--	2.3	-54	5.5	--	--	--	--	--	--	--	--
MW5	12/29/08	--	4.8	167	6.1	--	--	--	--	--	--	--	--
MW5	03/24/09	--	1.9	27	6.2	--	--	--	--	--	--	--	--
MW5	06/02/09	--	3.5	112	5.2	--	--	--	--	--	--	--	--
MW5	09/10/09	--	3.4	113	6.5	--	--	--	--	--	--	--	--
MW6	07/20/00	122	2.72	--	6.66	--	1.9	53	6	--	0.05	--	<0.20
MW6	10/11/00	--	--	--	--	--	--	--	--	--	--	--	--
MW6	04/10-11/01	142	NR	--	NR	--	2.2	0.69	5.2	--	<0.05	--	<0.20
MW6	07/10/01	--	--	--	--	--	--	--	--	--	--	--	--
MW6	11/20/01	100	2.03	--	6.44	--	5.2	1.1	3.4	--	--	--	<0.20
MW6	02/19/02	--	--	--	--	--	--	--	--	--	--	--	--
MW6	05/21/02	100	0.76	--	6.6	--	3.4	1.4	8.9	--	0.65	--	<0.20
MW6	06/27/03	--	--	--	--	--	--	--	--	--	--	--	--
MW6	09/29/03	--	--	--	--	--	--	--	--	--	--	--	--
MW6	12/12/03	--	--	--	--	--	--	--	--	--	--	--	--
MW6	03/15/04	--	0.11	--	--	--	--	--	--	--	--	--	--
MW6	06/24/04	--	0.05	--	--	--	--	--	--	--	--	--	--
MW6	09/29/04	--	0.37	--	6.60	--	--	--	--	--	--	--	--
MW6	12/13/04	--	--	--	--	--	--	--	--	--	--	--	--
MW6	03/14/05	--	0.08	--	5.65	--	--	--	--	--	--	--	--
MW6	06/15/05	--	--	--	--	--	--	--	--	--	--	--	--
MW6	09/26/05	--	--	--	--	--	--	--	--	--	--	--	--
MW6	12/12/05	--	1.52	--	6.61	--	--	--	--	--	--	--	--
MW6	03/29/06	--	6.93	--	6.06	--	--	--	--	--	--	--	--
MW6	06/19/06	--	--	--	--	--	--	--	--	--	--	--	--
MW6	09/29/06	--	0.16	--	6.49	--	--	--	--	--	--	--	--
MW6	12/12/06	--	0.5	--	6.68	--	--	--	--	--	--	--	--
MW6	03/01/07	--	0.83	--	6.66	--	--	--	--	--	--	--	--
MW6	06/12/07	--	--	--	--	--	--	--	--	--	--	--	--
MW6	09/25/07	--	8.5	--	6.78	--	--	--	--	--	--	--	--
MW6	12/20/07	--	--	--	--	--	--	--	--	--	--	--	--
MW6	03/26/08	--	5.57	-35	6.38	--	--	--	--	--	--	--	--
MW6	06/03/08	--	--	--	--	--	--	--	--	--	--	--	--
MW6	09/25/08	--	1.6	-160	6.2	--	--	--	--	--	--	--	--
MW6	12/29/08	--	1.2	-60	6.5	--	--	--	--	--	--	--	--
MW6	03/24/09	--	0.3	-115	6.8	--	--	--	--	--	--	--	--

TABLE 2b NATURAL ATTENUATION PARAMETERS  
 FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Concentration (mg/L)											
		CO <sub>2</sub> (lab)	DO (field)	ORP (mv) (field)	pH (field)	COD	Mn	SO <sub>4</sub>	N-NH <sub>3</sub>	NO <sub>2</sub> -N	N-NO <sub>3</sub>	N	o-PO <sub>4</sub>
MW6	06/02/09	--	1.1	-141	5.9	--	--	--	--	--	--	--	--
MW6	09/10/09	--	0.9	-112	8	--	--	--	--	--	--	--	--
MW7	07/20/00	32.2	7.15	--	7.43	--	0.002	7.5	<0.10	--	2.6	--	0.13
MW7	10/11/00	--	--	--	--	--	--	--	--	--	--	--	--
MW7	04/10-11/01	77.6	NR	--	NR	--	0.048	49	<0.10	--	2.7	--	0.31
MW7	07/10/01	--	--	--	--	--	--	--	--	--	--	--	--
MW7	11/20/01	62	0.96	--	7.11	--	1.8	63	<0.10	--	--	--	<0.20
MW7	02/19/02	--	--	--	--	--	--	--	--	--	--	--	--
MW7	05/21/02	68	1.03	--	7.57	--	0.35	51	<0.10	--	2.8	--	0.11
MW7	06/27/03	--	--	--	--	--	--	--	--	--	--	--	--
MW7	09/29/03	--	--	--	--	--	--	--	--	--	--	--	--
MW7	12/12/03	--	--	--	--	--	--	--	--	--	--	--	--
MW7	03/15/04	--	0.54	--	--	--	--	--	--	--	--	--	--
MW7	06/24/04	--	0.20	--	--	--	--	--	--	--	--	--	--
MW7	09/29/04	--	--	--	--	--	--	--	--	--	--	--	--
MW7	12/13/04	--	--	--	--	--	--	--	--	--	--	--	--
MW7	03/14/05	--	0.47	--	6.15	--	--	--	--	--	--	--	--
MW7	06/15/05	--	--	--	--	--	--	--	--	--	--	--	--
MW7	09/26/05	--	--	--	--	--	--	--	--	--	--	--	--
MW7	12/12/05	--	--	--	--	--	--	--	--	--	--	--	--
MW7	03/29/06	--	0.72	--	5.81	--	--	--	--	--	--	--	--
MW7	06/19/06	--	--	--	--	--	--	--	--	--	--	--	--
MW7	09/29/06	--	--	--	--	--	--	--	--	--	--	--	--
MW7	12/12/06	--	--	--	--	--	--	--	--	--	--	--	--
MW7	03/01/07	--	0.92	--	6.84	--	--	--	--	--	--	--	--
MW7	06/12/07	--	--	--	--	--	--	--	--	--	--	--	--
MW7	09/25/07	--	6.11	--	6.78	--	--	--	--	--	--	--	--
MW7	12/20/07	--	--	--	--	--	--	--	--	--	--	--	--
MW7	03/26/08	--	3.3	23	6.46	--	--	--	--	--	--	--	--
MW7	06/03/08	--	--	--	--	--	--	--	--	--	--	--	--
MW7	09/25/08	--	1.5	-186	6.3	--	--	--	--	--	--	--	--
MW7	12/29/08	--	6.4	-50	6.9	--	--	--	--	--	--	--	--
MW7	03/24/09	--	1.7	-16	7.1	--	--	--	--	--	--	--	--
MW7	06/02/09	--	2.1	3	6.1	--	--	--	--	--	--	--	--
MW7	09/10/09	--	2.3	58	7.4	--	--	--	--	--	--	--	--
MW8	12/29/08	--	1.5	-3	6.6	--	--	--	--	--	--	--	--
MW8	03/24/09	--	1.8	-2	7.2	--	--	--	--	--	--	--	--
MW8	06/02/09	--	1.4	80	5.5	--	--	--	--	--	--	--	--
MW8	09/10/09	--	1.1	81	7.2	--	--	--	--	--	--	--	--
MW9A	09/10/09	--	1.4	79	8.4	250	--	--	--	<0.1	<0.1	1.8	0.22
MW9B	09/10/09	--	2.4	55	7.4	12	--	--	--	<0.1	1.2	<0.5	<0.1
O1	09/10/09	--	0.4	-53	7.6	32	--	--	--	<0.1	<0.1	1.3	<0.1



TABLE 2b NATURAL ATTENUATION PARAMETERS  
 FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Date	Concentration (mg/L)										
		CO <sub>2</sub> (lab)	DO (field)	ORP (mv) (field)	pH (field)	COD	Mn	SO <sub>4</sub>	N-NH <sub>3</sub>	NO <sub>2</sub> -N	N-NO <sub>3</sub>	N

- CO<sub>2</sub> Carbon dioxide.
- COD Chemical Oxygen Demand
- DO Dissolved oxygen.
- ORP Oxygen reduction potential
- Fe(II) Ferrous iron.
- Mn Manganese.
- SO<sub>4</sub> Sulfate.
- N-NH<sub>3</sub> Ammonia.
- N-NO<sub>3</sub> Nitrate.
- N Total Kjeldahl Nitrogen
- o-PO<sub>4</sub> Ortho-Phosphate.
- mg/L Milligrams per liter.
- \* SPH present; not sampled.
- Not analyzed or not sampled.

TABLE 3 HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA  
FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Boring ID	Date	Depth (feet)	Concentrations (µg/L)							
			Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TPH-g	TPH-d	TPH-mo
HP1	12/18/2003	26-30	<5.0	<5.0	<5.0	<b>11</b>	<b>480</b>	<b>410</b>	<b>180</b>	<500
HP3	12/18/2003	32-36	<0.50	<0.50	<0.50	<1.0	<b>0.55</b>	<50	<b>75</b>	<500
SB3	12/26/2007	24	0.75	28	35	180	0.59	1800	<1000	<100
SB3	12/26/2007	40	<0.50	1.1	5.3	33	1	240	<400	<100
SB4	12/26/2007	23	160	120	200	240	1.8	3500	<1500	<100
SB4	12/26/2007	40	250	1400	280	2000	3.2	9900	<1500	<100
SB5	12/26/2007	24	<b>660</b>	<b>11000</b>	<b>4200</b>	<b>20000</b>	34	<b>110000</b>	<100000	310
SB5	12/26/2007	40	74	1000	380	2400	31	13000	<3000	<100
SB6	12/26/2007	25	<0.5	6.6	3.6	27	1.2	210	<100	<100
SB6	12/26/2007	40	85	1500	620	6900	15	35000	<18000	<100
SB7	12/26/2007	40	120	1100	470	2900	7.9	20000	<6000	<100
SB8	12/26/2007	40	320	1300	920	3100	100	17000	<3000	<100
SB9	12/26/2007	34	<0.5	<0.5	<0.5	<0.5	92	<50	69	<100
SB10	12/26/2007	21.3	<0.5	<0.5	<0.5	<0.5	30	<50	2200	5000
SB11	12/26/2007	17	<0.5	<0.5	<0.5	<0.5	<50	<50	200	220
SB12	12/26/2007	20	<0.5	<0.5	<0.5	<0.5	43	67	950	1200
SB13	12/26/2007	26	<0.5	<0.5	<0.5	<0.5	<b>160</b>	<50	<b>3800</b>	<b>6600</b>

TPH-g Total Petroleum Hydrocarbons as gasoline.

TPH-d Total Petroleum Hydrocarbons as diesel.

TPH-mo Total Petroleum Hydrocarbons as motor oil.

< less than the laboratory reporting limits.

**660** Bold values reflect maximum detected concentrations

TABLE 4 GROUNDWATER MONITORING SCHEDULE  
 FORMER VAL STROUGH CHEVROLET, 327 34th STREET OAKLAND, CALIFORNIA

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency		
		BTEX and TPH-g	MTBE	TEPH
MW1	Q	S	S	NA
MW2	Q	Q	Q	NA
MW3	Q	Q	Q	NA
MW4	Q	Q	Q	NA
MW5	Q	A	A	NA
MW6	Q	S	S	NA
MW7	Q	A	A	NA
MW8	Q	A	A	NA
MW9A	Q	Q	Q	NA
MW9B	Q	Q	Q	NA
O1	Q	Q	Q	NA

Q = Quarterly.

S = Semiannual.

A = Annual.

NA = not analyzed, pending approval

BTEX = Benzene, toluene, ethylbenzene, total xylenes.

MTBE = Methyl tertiary butyl ether.

TPH-g = Total Petroleum Hydrocarbons as gasoline.

TEPH = Total Extractable Petroleum Hydrocarbons, includes TPH-diesel and TPH-motor oil.

**APPENDIX A**  
**PROTOCOLS FOR GROUNDWATER MONITORING**



## **APPENDIX A**

### **PROTOCOLS FOR GROUNDWATER MONITORING**

#### **GROUNDWATER GAUGING**

Wells are opened prior to gauging to allow the groundwater level in the wells to equilibrate with atmospheric pressure. The depth to groundwater and depth to liquid-phase hydrocarbons, if present, are then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements are made from a permanent reference point at the top of the well casing. If less than 1 foot of water is measured in a well, the water is bailed from the well and, if the well does not recover, the well is considered “functionally dry.” Wells with a sheen or measurable liquid-phase hydrocarbons are generally not purged or sampled.

#### **WELL PURGING**

After the wells are gauged, each well is purged of approximately 3 well casing volumes of water to provide representative groundwater samples for analysis. Field parameters of pH, temperature, and electrical conductance are measured during purging to ensure that these parameters have stabilized before groundwater in a well is sampled. Groundwater in each well is purged using an inertial pump (WaTerra), an electric submersible pump, or a bailer. After the well is purged, the water level is checked to ensure that the well has recharged to at least 80 percent of its original water level.

#### **GROUNDWATER SAMPLING**

After purging, groundwater in each well is sampled using dedicated tubing and an inertial pump (WaTerra) or a factory-cleaned disposable bailer. Samples from extraction wells are typically collected from sample ports associated with the groundwater remediation system. Samples collected for volatile organic analysis are placed in Teflon septum-sealed 40-milliliter glass vials. Samples collected for diesel analysis are placed in 1-liter amber glass bottles. Each sample bottle is labeled with the site name, well number, date, sampler’s initials, and preservative. The samples are placed in a cooler with ice for delivery to a state-certified laboratory. The information for each sample is entered on a chain-of-custody form prior to transport to the laboratory.

**APPENDIX B**

**FIELD DOCUMENTS**



# Chain of Custody

70001

Project Name: Former Strough Chevy - Oakland

Job Number: 41-090910

TAT: STANDARD 5 DAY 2 DAY 24 HOUR OTHER:

Lab: <b>Kiff</b>	Site Address: 327 34th St, Oakland	Confluence PM: Jason Brown
Address: 2795 2nd St, Suite 300, Davis CA 95616	California Global ID No.: T0600101644	Phone / Fax: 916-760-7641 / 916-473-8617
Contact: Angelique Showman	Include EDF w/ Report: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Confluence Log Code: <b>CESC</b>
Phone/ Fax: 530-297-4800 x.127	Consultant / PM: LRM / Merhdad Javaherian	Report to: Merhdad Javaherian
	Phone / Fax: (415) 706-8935	Invoice to: Merhdad Javaherian

Sample ID	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis								Notes and Comments													
			Soil/Solid	Water/Liquid	Air			Unpreserved	H2SO4	HNO3	HCl	NaOH	TEPH Diesel & Motor Oil* (8015)	TPH-G, BTEX (8260B)	MTBE, TBA (8260)	BOD (5210B)	COD (410.1)	Nitrite/Nitrate (354.1)	TKN (4500)	Ortho-phosphate (365.3)		Microbial population heterotrophic & specific degrader plate count (9215-A)												
MW1	816	9/10	X				5								X	X	X																	
MW4	825		X				5								X	X	X																	
MW3	852		X				17								X	X	X	X	X	X	X	X	X	X	X	X	X							
MW9A	1008		X				17								X	X	X	X	X	X	X	X	X	X	X	X	X							
MW9B	910		X				17								X	X	X	X	X	X	X	X	X	X	X	X	X							
O1	1095		X				17								X	X	X	X	X	X	X	X	X	X	X	X	X							
MW2	1115		X				17								X	X	X	X	X	X	X	X	X	X	X	X	X							
MW5	1202		X				5								X	X	X																	
QCTB	-		X				2								X	X	X																	

01  
02  
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07  
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09

Sampler's Name: <u>B. Myers</u>	Relinquished By / Affiliation		Date	Time	Accepted By / Affiliation		Date	Time
Sampler's Company: Confluence Environmental			<u>9/10/09</u>	<u>1208</u>				
Shipment Date:							<u>091009</u>	<u>1219</u>
Shipment Method:								
Special Instructions: *Run TEPH w/ silica gel cleanup								



Confluence Environmental, Inc.  
 3308 El Camino Ave, Suite 300 #148  
 Sacramento, CA 95821  
 916-760-7641 - main  
 916-473-8617 - fax  
 www.confluence-env.com

# Chain of Custody

Project Name: Former Strough Chevy - Oakland

Job Number: 41-0910910

TAT: STANDARD 5 DAY 2 DAY 24 HOUR OTHER:

Lab: Kiff	Site Address: 327 34th St, Oakland	Confluence PM: Jason Brown
Address: 2795 2nd St, Suite 300, Davis CA 95616	California Global ID No.: T0600101644	Phone / Fax: 916-760-7641 / 916-473-8617
Contact: Angelique Showman	Include EDF w/ Report: <u>Yes</u> No	Confluence Log Code: CESC
Phone/ Fax: 530-297-4800 x.127	Consultant / PM: LRM / Merhdad Javaherian	Report to: Merhdad Javaherian
	Phone / Fax: (415) 706-8935	Invoice to: Merhdad Javaherian

Sample ID	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis								Notes and Comments				
			Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	TEPH Diesel & Motor Oil* (8015)	TPH-G, BTEX (8260B)	MTBE, TBA (8260)	BOD (5210B)	COD (410.1)	Nitrite/ Nitrate (354.1)	TKN (4500)	Ortho-phosphate (365.3)		Microbial population heterotrophic & specific degrader plate count (9215-A)			
MW6	1215	9/10	X			5							X	X	X										
MW7	1246	1	X			5							X	X	X										
MW8	1305	1	X			5							X	X	X										

Sampler's Name: <u>B. Hyas</u>	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: Confluence Environmental		9/10/09	945			
Shipment Date:						
Shipment Method:				Michelle Spencer Kiff Analytical	09/10/09	0945
Special Instructions: *Run TEPH w/ silica gel cleanup						



# Well Maintenance Inspection Form

Client: LTRM

Site: Furmer Slough

Date: 9/14/09

Job #: M1-090910

Technician: BH

Page      of     

Inspection Point	Well Inspected - No Corrective Action Required	Entry Indicates Deficiency											Well Not Inspected (explain in notes)	Notes (Note any repairs made while on site)		
		Cap non-functional	Lock non-functional	Lock missing	Bolts missing (# missing / # total tabs)	Tabs stripped (# stripped / # total tabs)	Tabs broken (# broken / # of total tabs)	Annular seal incomplete	Apron damaged	Rim / Lid broken	Trip Hazard	Below Grade			Other (explain in notes)	
MW1	X															
MW2	X															
MW3	X															
MW4	X															
MW5	X															
MW6	X															
MW7	X															
MW8	X			<del>X</del>												
MW9A				X												
MW9B		X		X												
O1				X												

Notes: \_\_\_\_\_

\_\_\_\_\_

Repair codes: **rt**=retap/ bolts added or replaced    **as**=annular seal repair,

## Water Level Measurements

Job Number: *141090910*      Date: *9/10/09*      Client: *LRM*

Site: *Furmer Strough*

Well I.D.	Time	Dia	Depth to NAPL	Thickness of NAPL	Depth to water (DTW)	Total Depth (measured)	Total Depth (historical)	Ref Point (TOC/ TOB)			
<i>MW1</i>	<i>710</i>	<i>2</i>			<i>21.20</i>		<i>30.59</i>	<i>TOC</i>			
<i>MW2</i>	<i>733</i>	<i>2</i>			<i>22.40</i>		<i>31.74</i>				
<i>MW3</i>	<i>717</i>	<i>2</i>			<i>22.32</i>		<i>31.88</i>				
<i>MW4</i>	<i>714</i>	<i>2</i>			<i>21.00</i>		<i>27.54</i>				
<i>MW5</i>	<i>721</i>	<i>2</i>			<i>24.12</i>		<i>26.40</i>				
<i>MW6</i>	<i>702</i>	<i>2</i>			<i>18.20</i>		<i>26.55</i>				
<i>MW7</i>	<i>705</i>	<i>2</i>			<i>17.10</i>		<i>34.56</i>				
<i>MW8</i>		<i>1</i>			<i>15.58</i>		<i>26.65</i>				
<i>MW9A</i>	<i>725</i>	<i>2</i>			<i>22.51</i>		<i>25.20</i>				
<i>MW9B</i>	<i>728</i>	<i>2</i>			<i>22.30</i>		<i>34.58</i>				
<i>O1</i>	<i>730</i>	<i>2</i>			<i>22.44</i>		<i>35.17</i>		└─		

## Purging And Sampling Data Sheet

Job#: <u>MW-090910</u>	Sampler: <u>B Myers</u>	Client: <u>LRM</u>
Well ID: <u>MW1</u>	Date: <u>9/10/09</u>	Site: <u>Former Strough Chevy, Oakland</u>
Well diam: 1/4" 1" <u>2"</u> 3" 4" 6" Other:	DTW: <u>21.20</u> Total Depth: <u>30.59</u>	
Purge equip: ES - diam: Bladder Peri <u>Water</u> Positive Air Displacement Ext. System	disp bailer teflon bailer other: <u>Tubing</u> : OD: <u>New Dedicated NA</u>	
Purge method: <u>3-5 Case Volume</u> Micro/Low-Flow Extraction Other:	Pump depth/ intake: <u>Multipliers</u> : 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"= 1.02 6"= 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

1 Volume = 1.5 X 3 = 4.5 (Total Purge) 80% = 23.08

Time	Temp (°C/°F)	pH	Cond (mS/µS)	Turbidity (NTU)	Purge Rate (gal or mL/min)	Volume Removed (gal/L)	DO (mg/l)	ORP	DTW	Notes
<u>Total</u>	<u>18.3</u>	<u>6.5</u>	<u>1198</u>	<u>39</u>	—	—	<u>2.1</u>	<u>199</u>	—	
<u>801</u>	<u>18.2</u>	<u>6.6</u>	<u>1278</u>	<u>35</u>	—	<u>1.5</u>	<u>2.1</u>	<u>191</u>	—	
<u>804</u>	<u>18.2</u>	<u>6.7</u>	<u>1285</u>	<u>35</u>	—	<u>3</u>	<u>2.1</u>	<u>187</u>	—	
<u>807</u>	<u>18.3</u>	<u>6.7</u>	<u>1279</u>	<u>36</u>	—	<u>4.5</u>	<u>2.1</u>	<u>186</u>	—	

Did well dewater? YES  NO  Total volume removed: 4.5 (gal/L)

Sample method: Disp Bailer  Ded. Tubing New Tubing Ext. Port Other:

Sample date: 9/10/09 Sample time: 810 DTW at sample: 21.56

Sample ID: MW1 Lab: Kiff Number of bottles: 5

Analysis: TPH-G, BTEX, MTBE, TBA, TEPH-D, TEPH-MO & Baseline analysis (see COC)

Equipment blank ID @	Field blank ID @
Duplicate ID:	Pre-purge DO: <span style="float: right;">Post purge DO:</span>
Fe <sup>2+</sup> :	Pre-purge ORP: <span style="float: right;">Post purge ORP:</span>
NAPL depth:	Volume of NAPL: <span style="float: right;">Volume removed: <u>        </u> ml</span>

## Purging And Sampling Data Sheet

Job#: <u>HW090910</u>	Sampler: <u>B Myers</u>	Client: <u>LRM</u>
Well ID: <u>HW2</u>	Date: <u>9/10/09</u>	Site: <u>Former Strough Chevy, Oakland</u>
Well diam: 1/4" 1" <u>(2")</u> 3" 4" 6" Other:	DTW: <u>22.40</u> Total Depth: <u>31.74</u>	
Purge equip: ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System		
<input checked="" type="checkbox"/> disp baller <input type="checkbox"/> teflon baller <input type="checkbox"/> other: <b>Tubing:</b> OD: <u>New</u> Dedicated NA		
Purge method: <u>3-5 Case Volume</u> Micro/Low-Flow Extraction Other:		
Pump depth/ intake:    Multipliers: 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"= 1.02 6"= 1.47 Radius <sup>2</sup> X 0.163		
(TD - DTW X Multiplier = 1 Volume)		80% Recovery (TD - DTW X 0.20 + DTW)

1 Volume = 1.5 X 3 = 4.5 (Total Purge)

80% = 24.27

Time	Temp (°C/°F)	pH	Cond (mS/µS)	Turbidity (NTU)	Purge Rate (gal or mL/min)	Volume Removed (gal/L)	DO (mg/l)	ORP	DTW	Notes
<i>Initial</i>	18.0	7.3	637	45	—	—	1.0	-37	—	
1103	17.9	7.4	692	41	—	1.5	1.1	-45	—	
1106	17.9	7.4	746	39	—	3	1.2	-45	—	
1110	17.9	7.4	771	44	—	4.5	1.3	-44	—	

Did well dewater? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		Total volume removed: <u>4.5</u> (gal/L)	
Sample method: <u>Disp Bailer</u> Ded. Tubing New Tubing Ext. Port Other:			
Sample date: <u>9/10/09</u>	Sample time: <u>7:11:15</u>	DTW at sample: <u>22.56</u>	
Sample ID: <u>HW2</u>	Lab: <u>Kiff</u>	Number of bottles: <u>17</u>	
Analysis: <u>TPH-G, BTEX, MTBE, TBA, TEPH-D, TEPH-MO &amp; Baseline analysis (see COC)</u>			
Equipment blank ID @	Field blank ID @		
Duplicate ID:	Pre-purge DO:	Post purge DO:	
<i>Fe2+</i> : <u>3.0 mg/L</u>	Pre-purge ORP:	Post purge ORP:	
NAPL depth:	Volume of NAPL:	Volume removed:            ml	

## Purging And Sampling Data Sheet

Job#: <u>MW3</u>	Sampler: B Myers	Client: LRM
Well ID: <u>MW3</u>	Date: <u>9/10/09</u>	Site: Former Strough Chevy, Oakland
Well diam: 1/4" 1" (2") 3" 4" 6" Other:	DTW: <u>22.32</u> Total Depth: <u>31.88</u>	
Purge equip: ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System		
(disp bailer) teflon bailer other: Tubing: OD: New Dedicated NA		
Purge method: (3-5 Case Volume) Micro/Low-Flow Extraction Other:		
Pump depth/ intake: Multipliers: 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"= 1.02 6"= 1.47 Radius <sup>2</sup> X 0.163		
(TD - DTW X Multiplier = 1 Volume)		80% Recovery (TD - DTW X 0.20 + DTW)

1 Volume = 1.5 X 3 = 4.5 (Total Purge) 80% = 24.23

Time	Temp (°C/°F)	pH	Cond (mS/°C)	Turbidity (NTU)	Purge Rate (gal or mL/min)	Volume Removed (gal/L)	DO (mg/l)	ORP	DTW	Notes
<i>Initial</i>	17.7	7.6	894	83	—	—	1.5	-84	—	
841	17.7	7.7	914	79	—	1.5	1.3	-84	—	
845	17.7	7.7	896	77	—	3	1.3	-80	—	
848	17.7	7.7	887	71	—	4.5	1.3	-79	—	

Did well dewater? YES  NO  Total volume removed: 4.5 (gal/L)

Sample method: (Disp Bailor) Ded. Tubing New Tubing Ext. Port Other:

Sample date: 9/10/09 Sample time: 850 DTW at sample: 22.63

Sample ID: MW3 Lab: Kiff Number of bottles: 17

Analysis: TPH-G, BTEX, MTBE, TBA, TEPH-D, TEPH-MO & Baseline analysis (see COC)

Equipment blank ID @ Field blank ID @

Duplicate ID: Pre-purge DO: Post purge DO:

\* Fe<sup>2+</sup>: 3.4 mg/L Pre-purge ORP: Post purge ORP:

NAPL depth: Volume of NAPL: Volume removed: ml

## Purging And Sampling Data Sheet

Job#: <u>11-090910</u>	Sampler: <u>B Myers</u>	Client: <u>LRM</u>
Well ID: <u>MW4</u>	Date: <u>9/10/09</u>	Site: <u>Former Strough Chevy, Oakland</u>
Well diam: 1/4" 1" <u>(2")</u> 3" 4" 6" Other:	DTW: <u>2100</u> Total Depth: <u>2754</u>	
Purge equip: ES - diam: Bladder Peri <u>Waterra</u> Positive Air Displacement Ext. System	Tubing: OD: <u>New</u> Dedicated NA	
disp bailer teflon bailer other:	Purge method: <u>3-5 Case Volume</u> Micro/Low-Flow Extraction Other:	
Pump depth/ intake:	Multipliers: 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"= 1.02 6"= 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume	80% Recovery (TD - DTW X 0.20 + DTW)	

1 Volume = 1 X 3 (Total Purge)      80% = 2231

Time	Temp (°C/°F)	pH	Cond (mS/µS)	Turbidity (NTU)	Purge Rate (gal or mL/min)	Volume Removed (gal / L)	DO (mg/l)	ORP	DTW	Notes
<i>Total</i>	<u>18.6</u>	<u>6.9</u>	<u>797</u>	<u>238</u>	—	—	<u>1.8</u>	<u>186</u>	—	
<u>820</u>	<u>18.6</u>	<u>7.0</u>	<u>791</u>	<u>231</u>	—	<u>1</u>	<u>1.9</u>	<u>187</u>	—	
<u>822</u>	<u>18.5</u>	<u>7.0</u>	<u>797</u>	<u>71000</u>	—	<u>2</u>	<u>1.6</u>	<u>185</u>	—	
<u>824</u>	<u>18.5</u>	<u>7.0</u>	<u>795</u>	<u>71000</u>	—	<u>3</u>	<u>1.7</u>	<u>183</u>	—	

Did well dewater? YES <input type="radio"/> NO <input checked="" type="radio"/>	Total volume removed: <u>3</u> (gal / L)
Sample method: Disp Bailer <input type="radio"/> <u>Ded. Tubing</u> <input checked="" type="radio"/> New Tubing <input type="radio"/> Ext. Port <input type="radio"/> Other: <input type="radio"/>	
Sample date: <u>9/10/09</u>	Sample time: <u>825</u> DTW at sample: <u>21.46</u>
Sample ID: <u>MW4</u>	Lab: <u>Kiff</u> Number of bottles: <u>5</u>
Analysis: <u>TPH-G, BTEX, MTBE, TBA, TEPH-D, TEPH-MO &amp; Baseline analysis (see COC)</u>	
Equipment blank ID @	Field blank ID @
Duplicate ID:	Pre-purge DO:      Post purge DO:
Fe <sup>2+</sup> :	Pre-purge ORP:      Post purge ORP:
NAPL depth:	Volume of NAPL:      Volume removed:      ml

# Purging And Sampling Data Sheet

Job#: <u>M16090910</u>	Sampler: <u>B Myers</u>	Client: <u>LRM</u>
Well ID: <u>M1W5</u>	Date: <u>9/10/09</u>	Site: <u>Former Strough Chevy, Oakland</u>
Well diam: 1/4" 1" <u>(2")</u> 3" 4" 6" Other:	DTW: <u>24.12</u> Total Depth: <u>26.40</u>	
Purge equip: ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System		
<input checked="" type="checkbox"/> disp bailer <input type="checkbox"/> teflon bailer <input type="checkbox"/> other:            Tubing: OD: <u>New</u> Dedicated NA		
Purge method: <u>3-5 Case Volume</u> Micro/Low-Flow Extraction Other:		
Pump depth/ intake:	Multipliers: 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"= 1.02 6"= 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume      80% Recovery (TD - DTW X 0.20 + DTW)		

1 Volume = 0.4 X 3 = 1.2 (Total Purge)      80% = 24.58

Time	Temp (°C/°F)	pH	Cond (mS/μS)	Turbidity (NTU)	Purge Rate (gal or mL / min)	Volume Removed (gal / L)	DO (mg/l)	ORP	DTW	Notes
<u>Start</u>	<u>18.2</u>	<u>6.7</u>	<u>477</u>	<u>112</u>	—	—	<u>3.4</u>	<u>99</u>	—	
<u>1156</u>	<u>17.8</u>	<u>6.6</u>	<u>508</u>	<u>296</u>	—	<u>0.4</u>	<u>3.4</u>	<u>107</u>	—	
<u>1157</u>	<u>17.7</u>	<u>6.5</u>	<u>530</u>	<u>71000</u>	—	<u>0.8</u>	<u>3.5</u>	<u>107</u>	—	
<u>1159</u>	<u>17.7</u>	<u>6.5</u>	<u>531</u>	<u>71000</u>	—	<u>1.2</u>	<u>3.4</u>	<u>113</u>	—	

Did well dewater? YES   NO      Total volume removed: 1.5 (gal / L)

Sample method:  Disp Bailer     Ded. Tubing     New Tubing     Ext. Port     Other:

Sample date: 9/10/09    Sample time: 1200    DTW at sample: 24.58

Sample ID: M1W5    Lab: Kiff    Number of bottles: 5

Analysis: TPH-G, BTEX, MTBE, TBA, TEPH-D, TEPH-MO & Baseline analysis (see COC)

Equipment blank ID    @	Field blank ID    @
Duplicate ID:	Pre-purge DO:      Post purge DO:
Fe <sup>2+</sup> :	Pre-purge ORP:      Post purge ORP:
NAPL depth:	Volume of NAPL:      Volume removed:      ml

## Purging And Sampling Data Sheet

Job#: <u>11-090910</u>	Sampler: <u>B Myers</u>	Client: <u>LRM</u>
Well ID: <u>MW6</u>	Date: <u>9/10/09</u>	Site: <u>Former Strough Chevy, Oakland</u>
Well diam: 1/4" 1" <u>2"</u> 3" 4" 6" Other:	DTW: <u>18.20</u> Total Depth: <u>26.55</u>	
Purge equip: ES - diam: Bladder Peri <u>Watera</u> Positive Air Displacement Ext. System <small>(disp bailer) teflon bailer other:</small>	Tubing: OD: New Dedicated NA	
Purge method: <u>3-5 Case Volume</u> Micro/Low-Flow Extraction Other:		
Pump depth/ intake:	Multipliers: 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"= 1.02 6"= 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume) 80% Recovery (TD - DTW X 0.20 + DTW)		

1 Volume = 1.3 X 3 = 3.9 (Total Purge) 80% = 19.87

Time	Temp (°C/°F)	pH	Cond (mS/µS)	Turbidity (NTU)	Purge Rate (gal or mL/ min)	Volume Removed (gal / L)	DO (mg/l)	ORP	DTW	Notes
<u>Initial</u>	<u>19.0</u>	<u>7.8</u>	<u>594</u>	<u>71000</u>	—	—	<u>1.1</u>	<u>-90</u>	—	
<u>1210</u>	<u>18.4</u>	<u>8.0</u>	<u>726</u>	<u>71000</u>	—	<u>1.3</u>	<u>0.9</u>	<u>-105</u>	—	
<u>1212</u>	<u>18.1</u>	<u>8.0</u>	<u>732</u>	<u>71000</u>	—	<u>2.6</u>	<u>1.0</u>	<u>-103</u>	—	
<u>1214</u>	<u>18.2</u>	<u>8.0</u>	<u>727</u>	<u>71000</u>	—	<u>3.9</u>	<u>0.9</u>	<u>-112</u>	—	

Did well dewater? YES <input checked="" type="radio"/> NO <input type="radio"/>	Total volume removed: <u>4</u> (gal / L)
Sample method: <u>Disp Bailer</u> <del>Ded Tubing</del> New Tubing Ext. Port Other:	
Sample date: <u>9/10/09</u> Sample time: <u>1215</u>	DTW at sample: <u>18.67</u>
Sample ID: <u>MW6</u> Lab: <u>Kiff</u>	Number of bottles: <u>5</u>
Analysis: <u>TPH-G, BTEX, MTBE, TBA, TEPH-D, TEPH-MO &amp; Baseline analysis (see COC)</u>	
Equipment blank ID @	Field blank ID @
Duplicate ID:	Pre-purge DO: Post purge DO:
Fe2 <sup>+</sup> :	Pre-purge ORP: Post purge ORP:
NAPL depth:	Volume of NAPL: Volume removed: ml



# Purging And Sampling Data Sheet

Job#: <u>H1-090910</u>	Sampler: <u>B Myers</u>	Client: <u>LRM</u>
Well ID: <u>HWT</u>	Date: <u>9/10/09</u>	Site: <u>Former Strough Chevy, Oakland</u>
Well diam: 1/4" 1" <u>2"</u> 3" 4" 6" Other:	DTW: <u>17.10</u>	Total Depth: <u>34.56</u>
Purge equip: ES - diam: Bladder Peri <u>Waterfra</u> Positive Air Displacement Ext. System	<u>disp bailer</u> teflon bailer other:	
Purge method: <u>3-5 Case Volume</u> Micro/Low-Flow Extraction Other:	Tubing: OD: <u>New</u> Dedicated NA	
Pump depth/ intake:	Multipliers: 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"= 1.02 6"= 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume)		80% Recovery (TD - DTW X 0.20 + DTW)

1 Volume = 2.8 X 3 = 8.4 (Total Purge) 80% = 20.59

Time	Temp (°C/°F)	pH	Cond (mS /µS)	Turbidity (NTU)	Purge Rate (gal or mL / min)	Volume Removed (gal / L)	DO (mg/l)	ORP	DTW	Notes
<u>Initial</u>	<u>19.5</u>	<u>7.8</u>	<u>688</u>	<u>89</u>	—	—	<u>1.1</u>	<u>-40</u>	—	
<u>1228</u>	<u>19.0</u>	<u>7.7</u>	<u>690</u>	<u>181</u>	—	<u>2.8</u>	<u>1.7</u>	<u>-11</u>	—	
<u>1234</u>	<u>18.8</u>	<u>7.4</u>	<u>700</u>	<u>276</u>	—	<u>5.6</u>	<u>2.4</u>	<u>44</u>	—	
<u>1240</u>	<u>18.8</u>	<u>7.4</u>	<u>698</u>	<u>287</u>	—	<u>8.5</u>	<u>2.3</u>	<u>58</u>	—	

Did well dewater? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	Total volume removed: <u>8.5</u> (gal / L)
Sample method: <u>Disp Bailer</u> <del>Ded Tubing</del> New Tubing Ext. Port Other:	
Sample date: <u>9/10/09</u>	Sample time: <u>1240</u> DTW at sample: <u>20.39</u>
Sample ID: <u>HWT</u>	Lab: <u>Kiff</u> Number of bottles: <u>5</u>
Analysis: <u>TPH-G, BTEX, MTBE, TBA, TEPH-D, TEPH-MO &amp; Baseline analysis (see COC)</u>	
Equipment blank ID @	Field blank ID @
Duplicate ID:	Pre-purge DO: Post purge DO:
Fe <sup>2+</sup> :	Pre-purge ORP: Post purge ORP:
NAPL depth:	Volume of NAPL: Volume removed: ml

## Purging And Sampling Data Sheet

Job#: <u>11-090910</u>		Sampler: <u>B Myers</u>		Client: <u>LRM</u>	
Well ID: <u>MW8</u>		Date: <u>9/10/09</u>		Site: <u>Former Strough Chevy, Oakland</u>	
Well diam: 1/4" <input checked="" type="radio"/> 2" <input type="radio"/> 3" <input type="radio"/> 4" <input type="radio"/> 6" <input type="radio"/> Other: <input type="checkbox"/>				DTW: <u>15.58</u> Total Depth: <u>26.65</u>	
Purge equip: ES - diam: <input type="checkbox"/> Bladder <input checked="" type="checkbox"/> Peri <input type="checkbox"/> Waterra <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Ext. System <input type="checkbox"/>					
disp bailer <input type="checkbox"/> teflon bailer <input type="checkbox"/> other: <input type="checkbox"/>		Tubing: OD: <input type="checkbox"/> New <input type="checkbox"/> Dedicated <input type="checkbox"/> NA <input type="checkbox"/>			
Purge method: <input checked="" type="checkbox"/> 3-5 Case Volume <input type="checkbox"/> Micro/Low-Flow <input type="checkbox"/> Extraction <input type="checkbox"/> Other: <input type="checkbox"/>					
Pump depth/ intake: <input type="checkbox"/>		Multipliers: 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"= 1.02 6"= 1.47 Radius <sup>2</sup> X 0.163			
(TD - DTW X Multiplier = 1 Volume)			80% Recovery (TD - DTW X 0.20 + DTW)		

1 Volume = 0.4 X 3 = 1.2 (Total Purge) 80% = 17.79

Time	Temp (°C/°F)	pH	Cond (mS/cm)	Turbidity (NTU)	Purge Rate (gal or mL/min)	Volume Removed (gal / L)	DO (mg/l)	ORP	DTW	Notes
<u>Initial</u>	<u>19.2</u>	<u>7.3</u>	<u>335</u>	<u>36</u>	<u>←</u>	<u>—</u>	<u>1.5</u>	<u>85</u>	<u>—</u>	
<u>1259</u>	<u>19.4</u>	<u>7.1</u>	<u>337</u>	<u>34</u>	<u>—</u>	<u>0.4</u>	<u>1.5</u>	<u>93</u>	<u>—</u>	
<u>1301</u>	<u>19.4</u>	<u>7.1</u>	<u>336</u>	<u>34</u>	<u>—</u>	<u>0.8</u>	<u>1.3</u>	<u>88</u>	<u>—</u>	
<u>1303</u>	<u>19.2</u>	<u>7.2</u>	<u>363</u>	<u>34</u>	<u>—</u>	<u>1.2</u>	<u>1.1</u>	<u>81</u>	<u>—</u>	

Did well dewater? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		Total volume removed: <u>1.5</u> (gal / L)	
Sample method: Disp Bailer <input type="checkbox"/> <u>Ded. Tubing</u> <input type="checkbox"/> New Tubing <input type="checkbox"/> Ext. Port <input type="checkbox"/> Other: <input type="checkbox"/>			
Sample date: <u>9/10/09</u>		Sample time: <u>1305</u>	
		DTW at sample: <u>16.02</u>	
Sample ID: <u>MW8</u>		Lab: <u>Kiff</u>	
		Number of bottles: <u>5</u>	
Analysis: <u>TPH-G, BTEX, MTBE, TBA, TEPH-D, TEPH-MO &amp; Baseline analysis (see COC)</u>			
Equipment blank ID @		Field blank ID @	
Duplicate ID:		Pre-purge DO:	
		Post purge DO:	
Fe2 <sup>+</sup> :		Pre-purge ORP:	
		Post purge ORP:	
NAPL depth:		Volume of NAPL:	
		Volume removed: <u>  </u> ml	

## Purging And Sampling Data Sheet

Job#: <u>11-090910</u>	Sampler: <u>B Myers</u>	Client: <u>LRM</u>
Well ID: <u>MW9A</u>	Date: <u>9/10/09</u>	Site: <u>Former Strough Chevy, Oakland</u>
Well diam: 1/4" 1" <u>(2")</u> 3" 4" 6" Other:	DTW: <u>22.57</u> Total Depth: <u>25.20</u>	
Purge equip: ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System		
<input checked="" type="checkbox"/> disp bailer <input type="checkbox"/> teflon bailer <input type="checkbox"/> other: <b>Tubing:</b> OD: <u>New</u> Dedicated NA		
Purge method: <u>3-5 Case Volume</u> Micro/Low-Flow Extraction Other:		
Pump depth/ intake: <b>Multipliers:</b> 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"= 1.02 6"= 1.47 Radius <sup>2</sup> X 0.163		
(TD - DTW X Multiplier = 1 Volume)		80% Recovery (TD - DTW X 0.20 + DTW)

1 Volume = 0.4 X 3 = 1.2 (Total Purge)                      80% = 23.05

Time	Temp (°C / °F)	pH	Cond (ms / (S))	Turbidity (NTU)	Purge Rate (gal or ml / min)	Volume Removed (gal / L)	DO (mg/l)	ORP	DTW	Notes
<i>Initial</i>	17.7	7.9	1967	71000	—	—	1.2	90	—	ODOR
9/4	17.8	8.6	1671	71000	—	0.4	1.4	85	—	
9/5	17.8	8.4	1683	71000	—	0.8	1.5	83	—	
9/6	17.8	8.4	1689	71000	—	1.2	1.4	79	—	
		<i>Note 80%</i>								

Did well dewater? YES  NO                      Total volume removed: 1.2 (gal / L)

Sample method:  Disp Bailer    Ded. Tubing    New Tubing    Ext. Port    Other:

Sample date: 9/10/09   Sample time: 1000   DTW at sample: 22.60

Sample ID: MW9A   Lab: Kiff   Number of bottles: 17

Analysis:                      TPH-G, BTEX, MTBE, TBA, TEPH-D, TEPH-MO & Baseline analysis (see COC)

Equipment blank ID                      @                      Field blank ID                      @

Duplicate ID:                      Pre-purge DO:                      Post purge DO:

*f* Fe<sup>2+</sup>: 0 mg/L                      Pre-purge ORP:                      Post purge ORP:

NAPL depth:                      Volume of NAPL:                      Volume removed:                      ml

# Purging And Sampling Data Sheet

Job#: <i>41-090910</i>	Sampler: <i>B Myers</i>	Client: <i>LRM</i>
Well ID: <i>MW9B</i>	Date: <i>9/10/09</i>	Site: <i>Former Strough Chevy, Oakland</i>
Well diam: 1/4" 1" <u>2"</u> 3" 4" 6" Other:	DTW: <i>27.30</i> Total Depth: <i>34.50</i>	
Purge equip: ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System		
(disp bailer) teflon bailer other: _____ Tubing: OD: New Dedicated NA		
Purge method: <u>3-5 Case Volume</u> Micro/Low-Flow Extraction Other:		
Pump depth/ intake:	Multipliers: 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"= 1.02 6"= 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume		80% Recovery (TD - DTW X 0.20 + DTW)

1 Volume = 2 X 3 = 6 (Total Purge) 80% = 24.76

Time	Temp (°C/°F)	pH	Cond (mS/µS)	Turbidity (NTU)	Purge Rate (gal or mL/min)	Volume Removed (gal / L)	DO (mg/l)	ORP	DTW	Notes
<i>Final</i>	<i>17.8</i>	<i>7.7</i>	<i>1416</i>	<i>71000</i>	—	—	<i>1.0</i>	<i>99</i>	—	
<i>928</i>	<i>17.8</i>	<i>7.6</i>	<i>1246</i>	<i>71000</i>	—	<i>2</i>	<i>1.7</i>	<i>86</i>	—	
<i>932</i>	<i>17.8</i>	<i>7.4</i>	<i>1014</i>	<i>71000</i>	—	<i>4</i>	<i>2.2</i>	<i>64</i>	—	
<i>935</i>	<i>17.9</i>	<i>7.4</i>	<i>1015</i>	<i>71000</i>	—	<i>6</i>	<i>2.4</i>	<i>55</i>	—	

Did well dewater? YES  NO  Total volume removed: 6 (gal / L)

Sample method: Disp Bailer Ded. Tubing New Tubing Ext. Port Other:

Sample date: 9/10/09 Sample time: 940 DTW at sample: 22.89

Sample ID: MW9B Lab: Kiff Number of bottles: 17

Analysis: TPH-G, BTEX, MTBE, TBA, TEPH-D, TEPH-MO & Baseline analysis (see COC)

Equipment blank ID @ \_\_\_\_\_ Field blank ID @ \_\_\_\_\_

Duplicate ID: \_\_\_\_\_ Pre-purge DO: \_\_\_\_\_ Post purge DO: \_\_\_\_\_

\* Fe<sup>2+</sup>: 0 mg/L Pre-purge ORP: \_\_\_\_\_ Post purge ORP: \_\_\_\_\_

NAPL depth: \_\_\_\_\_ Volume of NAPL: \_\_\_\_\_ Volume removed: \_\_\_\_\_ ml

# Purging And Sampling Data Sheet

Job#: <u>11-090910</u>		Sampler: <u>B Myers</u>		Client: <u>LRM</u>	
Well ID: <u>01</u>		Date: <u>9/10/09</u>		Site: <u>Former Strough Chevy, Oakland</u>	
Well diam: 1/4" 1" <u>(2")</u> 3" 4" 6" Other:				DTW: <u>22.41</u> Total Depth: <u>35.17</u>	
Purge equip: ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System					
<input checked="" type="checkbox"/> disp bailer <input type="checkbox"/> teflon bailer <input type="checkbox"/> other:                    Tubing: OD: <input type="checkbox"/> New <input type="checkbox"/> Dedicated <input type="checkbox"/> NA					
Purge method: <u>3-5 Case Volume</u> Micro/Low-Flow Extraction Other:					
Pump depth/ intake:		Multipliers: 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"= 1.02 6"= 1.47 Radius <sup>2</sup> X 0.163			
(TD - DTW X Multiplier = 1 Volume			80% Recovery (TD - DTW X 0.20 + DTW)		

1 Volume = 2 X 3 = 6 (Total Purge)                      80% = 24.99

Time	Temp (C/F)	pH	Cond (mS/µS)	Turbidity (NTU)	Purge Rate (gal or mL/min)	Volume Removed (gal / L)	DO (mg/l)	ORP	DTW	Notes
<u>1031</u>	<u>18.0</u>	<u>7.6</u>	<u>765</u>	<u>71000</u>	—	—	<u>1.0</u>	<u>-105</u>	—	
<u>1033</u>	<u>17.9</u>	<u>7.6</u>	<u>800</u>	<u>71000</u>	<u>2</u>	<u>2</u>	<u>0.3</u>	<u>-77</u>	—	
<u>1037</u>	<u>17.8</u>	<u>7.6</u>	<u>797</u>	<u>71000</u>	—	<u>4</u>	<u>0.3</u>	<u>-68</u>	—	
<u>1040</u>	<u>17.9</u>	<u>7.6</u>	<u>799</u>	<u>71000</u>	—	<u>6</u>	<u>0.4</u>	<u>-53</u>	—	

Did well dewater? YES  NO                       Total volume removed: 6 (gal / L)

Sample method: Disp Bailer Ded. Tubing New Tubing Ext. Port Other:

Sample date: 9/10/09 Sample time: 1045 DTW at sample: 22.67

Sample ID: 01 Lab: Kiff Number of bottles: 17

Analysis: TPH-G, BTEX, MTBE, TBA, TEPH-D, TEPH-MO & Baseline analysis (see COC)

Equipment blank ID @                      Field blank ID @

Duplicate ID:                      Pre-purge DO:                      Post purge DO:

\* Fe<sup>2+</sup>: 2.6 mg/L                      Pre-purge ORP:                      Post purge ORP:

NAPL depth:                      Volume of NAPL:                      Volume removed:                      ml

**APPENDIX C**

**LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY  
DOCUMENTATION**



Mehrdad Javaherian  
LRM Consulting, Inc.  
1534 Plaza Lane, #145  
Burlingame, CA 94010

Subject : 9 Water Samples  
Project Name : Former Strough Chevy - Oakland  
Project Number : M1-090910

Dear Mr. Javaherian,

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

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

Sincerely,



Joel Kiff

Subject : 9 Water Samples  
Project Name : Former Strough Chevy - Oakland  
Project Number : M1-090910

## Case Narrative

Matrix Spike/Matrix Spike Duplicate results associated with samples MW9A, MW9B, and O1 for the analyte Benzene were affected by the analyte concentrations already present in the un-spiked sample.

Matrix Spike/Matrix Spike Duplicate results associated with sample MW1 for the analyte Toluene were affected by the analyte concentrations already present in the un-spiked sample.

Surrogate Recovery for sample MW9A for test method Mod. EPA 8015 was outside of control limits. This may indicate a bias in the analysis due to the sample's matrix or an interference from compounds present in the sample.



Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Sample : **MW1**

Matrix : Water

Lab Number : 70001-01

Sample Date :09/10/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
<b>Tert-Butanol</b>	< 5.0	5.0	ug/L	EPA 8260B	09/14/2009
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	09/14/2009
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	09/14/2009
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	09/14/2009
<b>TPH as Diesel (w/ Silica Gel)</b>	< 50	50	ug/L	M EPA 8015	09/14/2009
<b>TPH as Motor Oil (w/ Silica Gel)</b>	< 100	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	110		% Recovery	M EPA 8015	09/14/2009

Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Sample : **MW4**

Matrix : Water

Lab Number : 70001-02

Sample Date :09/10/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>280</b>	0.50	ug/L	EPA 8260B	09/12/2009
<b>Tert-Butanol</b>	< 5.0	5.0	ug/L	EPA 8260B	09/12/2009
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	09/12/2009
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	09/12/2009
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	09/12/2009
<b>TPH as Diesel (w/ Silica Gel)</b>	< 50	50	ug/L	M EPA 8015	09/14/2009
<b>TPH as Motor Oil (w/ Silica Gel)</b>	< 100	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	105		% Recovery	M EPA 8015	09/14/2009

Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Sample : **MW3**

Matrix : Water

Lab Number : 70001-03

Sample Date :09/10/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>1800</b>	15	ug/L	EPA 8260B	09/12/2009
<b>Toluene</b>	<b>3900</b>	15	ug/L	EPA 8260B	09/12/2009
<b>Ethylbenzene</b>	<b>790</b>	15	ug/L	EPA 8260B	09/12/2009
<b>Total Xylenes</b>	<b>3500</b>	15	ug/L	EPA 8260B	09/12/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>190</b>	15	ug/L	EPA 8260B	09/12/2009
<b>Tert-Butanol</b>	<b>110</b>	70	ug/L	EPA 8260B	09/12/2009
<b>TPH as Gasoline</b>	<b>22000</b>	1500	ug/L	EPA 8260B	09/12/2009
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	09/12/2009
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	09/12/2009
<b>TPH as Diesel (w/ Silica Gel)</b>	<b>&lt; 1500</b>	1500	ug/L	M EPA 8015	09/14/2009
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
<b>TPH as Motor Oil (w/ Silica Gel)</b>	<b>&lt; 100</b>	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	118		% Recovery	M EPA 8015	09/14/2009

Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Sample : **MW9A**

Matrix : Water

Lab Number : 70001-04

Sample Date :09/10/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>7800</b>	25	ug/L	EPA 8260B	09/14/2009
<b>Toluene</b>	<b>33000</b>	50	ug/L	EPA 8260B	09/15/2009
<b>Ethylbenzene</b>	<b>4500</b>	25	ug/L	EPA 8260B	09/14/2009
<b>Total Xylenes</b>	<b>25000</b>	25	ug/L	EPA 8260B	09/14/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>1800</b>	25	ug/L	EPA 8260B	09/14/2009
<b>Tert-Butanol</b>	<b>780</b>	150	ug/L	EPA 8260B	09/14/2009
<b>TPH as Gasoline</b>	<b>160000</b>	2500	ug/L	EPA 8260B	09/14/2009
1,2-Dichloroethane-d4 (Surr)	96.2		% Recovery	EPA 8260B	09/14/2009
Toluene - d8 (Surr)	98.4		% Recovery	EPA 8260B	09/14/2009
<b>TPH as Diesel (w/ Silica Gel)</b>	<b>&lt; 20000</b>	20000	ug/L	M EPA 8015	09/14/2009
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
<b>TPH as Motor Oil (w/ Silica Gel)</b>	<b>410</b>	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	156		% Recovery	M EPA 8015	09/14/2009

Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Sample : **MW9B**

Matrix : Water

Lab Number : 70001-05

Sample Date :09/10/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>640</b>	10	ug/L	EPA 8260B	09/14/2009
<b>Toluene</b>	<b>4500</b>	10	ug/L	EPA 8260B	09/14/2009
<b>Ethylbenzene</b>	<b>1100</b>	10	ug/L	EPA 8260B	09/14/2009
<b>Total Xylenes</b>	<b>6500</b>	10	ug/L	EPA 8260B	09/14/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>61</b>	10	ug/L	EPA 8260B	09/14/2009
<b>Tert-Butanol</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	09/14/2009
<b>TPH as Gasoline</b>	<b>36000</b>	1000	ug/L	EPA 8260B	09/14/2009
1,2-Dichloroethane-d4 (Surr)	97.9		% Recovery	EPA 8260B	09/14/2009
Toluene - d8 (Surr)	99.1		% Recovery	EPA 8260B	09/14/2009
<b>TPH as Diesel (w/ Silica Gel)</b>	<b>&lt; 3000</b>	3000	ug/L	M EPA 8015	09/14/2009
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
<b>TPH as Motor Oil (w/ Silica Gel)</b>	<b>&lt; 100</b>	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	119		% Recovery	M EPA 8015	09/14/2009

Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Sample : **O1**

Matrix : Water

Lab Number : 70001-06

Sample Date :09/10/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>960</b>	7.0	ug/L	EPA 8260B	09/14/2009
<b>Toluene</b>	<b>2400</b>	7.0	ug/L	EPA 8260B	09/14/2009
<b>Ethylbenzene</b>	<b>1000</b>	7.0	ug/L	EPA 8260B	09/14/2009
<b>Total Xylenes</b>	<b>4600</b>	7.0	ug/L	EPA 8260B	09/14/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>180</b>	7.0	ug/L	EPA 8260B	09/14/2009
<b>Tert-Butanol</b>	<b>84</b>	40	ug/L	EPA 8260B	09/14/2009
<b>TPH as Gasoline</b>	<b>23000</b>	700	ug/L	EPA 8260B	09/14/2009
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	09/14/2009
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	09/14/2009
<b>TPH as Diesel (w/ Silica Gel)</b>	<b>&lt; 1500</b>	1500	ug/L	M EPA 8015	09/14/2009
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
<b>TPH as Motor Oil (w/ Silica Gel)</b>	<b>&lt; 100</b>	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	106		% Recovery	M EPA 8015	09/14/2009

Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Sample : **MW2**

Matrix : Water

Lab Number : 70001-07

Sample Date :09/10/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>700</b>	20	ug/L	EPA 8260B	09/12/2009
<b>Toluene</b>	<b>3000</b>	20	ug/L	EPA 8260B	09/12/2009
<b>Ethylbenzene</b>	<b>1300</b>	20	ug/L	EPA 8260B	09/12/2009
<b>Total Xylenes</b>	<b>9400</b>	20	ug/L	EPA 8260B	09/12/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>370</b>	20	ug/L	EPA 8260B	09/12/2009
<b>Tert-Butanol</b>	<b>220</b>	90	ug/L	EPA 8260B	09/12/2009
<b>TPH as Gasoline</b>	<b>45000</b>	2000	ug/L	EPA 8260B	09/12/2009
1,2-Dichloroethane-d4 (Surr)	95.4		% Recovery	EPA 8260B	09/12/2009
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/12/2009
<b>TPH as Diesel (w/ Silica Gel)</b>	<b>&lt; 8000</b>	8000	ug/L	M EPA 8015	09/14/2009
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
<b>TPH as Motor Oil (w/ Silica Gel)</b>	<b>190</b>	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	110		% Recovery	M EPA 8015	09/14/2009

Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Sample : **MW5**

Matrix : Water

Lab Number : 70001-08

Sample Date :09/10/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>0.56</b>	0.50	ug/L	EPA 8260B	09/12/2009
<b>Tert-Butanol</b>	< 5.0	5.0	ug/L	EPA 8260B	09/12/2009
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	09/12/2009
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	09/12/2009
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/12/2009
<b>TPH as Diesel (w/ Silica Gel)</b>	< 50	50	ug/L	M EPA 8015	09/14/2009
<b>TPH as Motor Oil (w/ Silica Gel)</b>	< 100	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	102		% Recovery	M EPA 8015	09/14/2009



Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Sample : **QCTB**

Matrix : Water

Lab Number : 70001-09

Sample Date :09/10/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Tert-Butanol</b>	< 5.0	5.0	ug/L	EPA 8260B	09/12/2009
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	09/12/2009
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	09/12/2009
Toluene - d8 (Surr)	96.0		% Recovery	EPA 8260B	09/12/2009

**QC Report : Method Blank Data**Project Name : **Former Strough Chevy - Oakland**Project Number : **M1-090910**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	09/14/2009
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	106		%	M EPA 8015	09/14/2009
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/11/2009
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/11/2009
1,2-Dichloroethane-d4 (Surr)	100		%	EPA 8260B	09/11/2009
Toluene - d8 (Surr)	98.4		%	EPA 8260B	09/11/2009
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/14/2009
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/14/2009
1,2-Dichloroethane-d4 (Surr)	106		%	EPA 8260B	09/14/2009
Toluene - d8 (Surr)	105		%	EPA 8260B	09/14/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/15/2009
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/2009
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/2009
1,2-Dichloroethane-d4 (Surr)	100		%	EPA 8260B	09/12/2009
Toluene - d8 (Surr)	102		%	EPA 8260B	09/12/2009
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/14/2009
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/14/2009
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/14/2009
1,2-Dichloroethane-d4 (Surr)	99.6		%	EPA 8260B	09/14/2009
Toluene - d8 (Surr)	102		%	EPA 8260B	09/14/2009

## QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Former Strough Chevy - Oakland**Project Number : **M1-090910**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)	BLANK	<50	1000	1000	1180	1140	ug/L	M EPA 8015	9/14/09	118	114	3.27	70-130	25
Benzene	70010-03	13	40.5	40.6	50.9	50.3	ug/L	EPA 8260B	9/11/09	94.0	92.4	1.80	70-130	25
Methyl-t-butyl ether	70010-03	<0.50	40.6	40.6	33.0	34.7	ug/L	EPA 8260B	9/11/09	81.4	85.4	4.69	70-130	25
Tert-Butanol	70010-03	<5.0	201	202	201	192	ug/L	EPA 8260B	9/11/09	100	95.2	4.88	70-130	25
Toluene	70010-03	0.58	40.0	40.1	38.8	38.7	ug/L	EPA 8260B	9/11/09	95.5	95.1	0.466	70-130	25
Benzene	70023-02	180	40.3	40.4	202	209	ug/L	EPA 8260B	9/14/09	44.1	61.3	32.6	70-130	25
Methyl-t-butyl ether	70023-02	1.3	40.3	40.4	36.7	36.3	ug/L	EPA 8260B	9/14/09	87.7	86.5	1.33	70-130	25
Tert-Butanol	70023-02	160	200	200	343	344	ug/L	EPA 8260B	9/14/09	92.9	92.9	0.00642	70-130	25
Toluene	70023-02	<0.50	39.8	39.9	37.9	38.4	ug/L	EPA 8260B	9/14/09	95.3	96.3	1.02	70-130	25
Toluene	70020-04	<0.50	39.9	39.8	38.6	38.2	ug/L	EPA 8260B	9/15/09	96.7	96.1	0.708	70-130	25
Benzene	70021-03	<0.50	40.6	40.6	39.2	38.7	ug/L	EPA 8260B	9/12/09	96.6	95.3	1.35	70-130	25
Methyl-t-butyl ether	70021-03	<0.50	40.6	40.6	41.9	41.7	ug/L	EPA 8260B	9/12/09	103	103	0.367	70-130	25
Tert-Butanol	70021-03	<5.0	202	202	211	210	ug/L	EPA 8260B	9/12/09	105	104	0.775	70-130	25
Toluene	70021-03	<0.50	40.1	40.1	39.5	38.9	ug/L	EPA 8260B	9/12/09	98.5	97.0	1.51	70-130	25
Benzene	70027-06	50	40.6	40.6	79.4	79.8	ug/L	EPA 8260B	9/14/09	72.5	73.4	1.25	70-130	25
Methyl-t-butyl ether	70027-06	100	40.6	40.6	138	145	ug/L	EPA 8260B	9/14/09	83.0	101	19.2	70-130	25
Tert-Butanol	70027-06	370	202	202	586	566	ug/L	EPA 8260B	9/14/09	108	98.3	9.48	70-130	25

**QC Report : Matrix Spike/ Matrix Spike Duplicate**

Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Toluene	70027-06	58	40.1	40.1	83.5	85.3	ug/L	EPA 8260B	9/14/09	63.6	68.1	6.84	70-130	25

**QC Report : Laboratory Control Sample (LCS)**Project Name : **Former Strough Chevy - Oakland**Project Number : **M1-090910**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.6	ug/L	EPA 8260B	9/11/09	94.9	70-130
Methyl-t-butyl ether	40.6	ug/L	EPA 8260B	9/11/09	88.2	70-130
Tert-Butanol	202	ug/L	EPA 8260B	9/11/09	93.2	70-130
Toluene	40.1	ug/L	EPA 8260B	9/11/09	95.8	70-130
Benzene	40.6	ug/L	EPA 8260B	9/14/09	96.9	70-130
Methyl-t-butyl ether	40.6	ug/L	EPA 8260B	9/14/09	93.6	70-130
Tert-Butanol	202	ug/L	EPA 8260B	9/14/09	97.5	70-130
Toluene	40.1	ug/L	EPA 8260B	9/14/09	99.0	70-130
Toluene	40.1	ug/L	EPA 8260B	9/15/09	96.8	70-130
Benzene	40.4	ug/L	EPA 8260B	9/12/09	98.0	70-130
Methyl-t-butyl ether	40.4	ug/L	EPA 8260B	9/12/09	101	70-130
Tert-Butanol	201	ug/L	EPA 8260B	9/12/09	103	70-130
Toluene	39.9	ug/L	EPA 8260B	9/12/09	96.3	70-130
Benzene	40.8	ug/L	EPA 8260B	9/14/09	95.9	70-130
Methyl-t-butyl ether	40.8	ug/L	EPA 8260B	9/14/09	97.6	70-130
Tert-Butanol	203	ug/L	EPA 8260B	9/14/09	103	70-130
Toluene	40.3	ug/L	EPA 8260B	9/14/09	99.7	70-130



Confluence Environmental, Inc.  
3308 El Camino Ave, Suite 300 # 148  
Sacramento, CA 95821  
916-760-7641 - main  
916-473-8617 - fax  
www.confluence-env.com

# Chain of Custody

70001

Page 1 of 1

Project Name: Former Strough Chevy - Oakland

Job Number: 41-090910

TAT: STANDARD 5 DAY 2 DAY 24 HOUR OTHER:

Lab: Kiff	Site Address: 327 34th St, Oakland	Confluence PM: Jason Brown
Address: 2795 2nd St, Suite 300, Davis CA 95616	California Global ID No.: T0600101644	Phone / Fax: 916-760-7641 / 916-473-8617
Contact: Angelique Showman	Include EDF w/ Report: <u>Yes</u> No	Confluence Log Code: CESC
Phone/ Fax: 530-297-4800 x.127	Consultant / PM: LRM / Merhdad Javaherian	Report to: Merhdad Javaherian
	Phone / Fax: (415) 706-8935	Invoice to: Merhdad Javaherian

Sample ID	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis							Notes and Comments								
			Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	TEPH Diesel & Motor Oil* (8015)	TPH-G, BTEX (8260B)	MTBE, TBA (8260)	BOD (5210B)	COD (410.1)	Nitrite/ Nitrate (354.1)	TKN (4500)		Ortho-phosphate (365.3)	Microbial population heterotrophic & specific degrader plate count (9215-A)						
MW1	816	9/10		X			5						X	X	X													
MW4	825			X			5						X	X	X													
MW3	852			X			17						X	X	X	X	X	X	X	X	X	X	X	X				
MW9A	1002			X			17						X	X	X	X	X	X	X	X	X	X	X	X				
MW9B	940			X			17						X	X	X	X	X	X	X	X	X	X	X	X				
O1	1045			X			17						X	X	X	X	X	X	X	X	X	X	X	X				
MW2	1115			X			17						X	X	X	X	X	X	X	X	X	X	X	X				
MW5	1202			X			5						X	X	X													
QCTB	-			X			2						X	X														

Sampler's Name: <u>B. Hyes</u>	Relinquished By / Affiliation		Date	Time	Accepted By / Affiliation		Date	Time
Sampler's Company: Confluence Environmental	<u>[Signature]</u>		9/19	1200	<u>[Signature]</u>			
Shipment Date:					<u>[Signature]</u>		091009	1219
Shipment Method:								
Special Instructions: *Run TEPH w/ silica gel cleanup								

**SAMPLE RECEIPT CHECKLIST**

RECEIVER  
AOF  
Initials

SRG#: 70001 Date: 091009  
 Project ID: Asst Turner Strough Chevy - Oakland  
 Method of Receipt:  Courier  Over-the-counter  Shipper

COC Inspection

Is COC present?  Yes  No  
 Custody seals on shipping container?  Intact  Broken  Not present  N/A  
 Is COC Signed by Relinquisher?  Yes  No Dated?  Yes  No  
 Is sampler name legibly indicated on COC?  Yes  No  
 Is analysis or hold requested for all samples?  Yes  No  
 Is the turnaround time indicated on COC?  Yes  No  
 Is COC free of whiteout and uninitialed cross-outs?  Yes  No, Whiteout  No, Cross-outs

Sample Inspection

Coolant Present:  Yes  No (includes water)  
 Temperature °C 1.4 Therm. ID# TC-5 Initial AOF Date/Time 091009/1532  N/A  
 Are there custody seals on sample containers?  Intact  Broken  Not present  
 Do containers match COC?  Yes  No  No, COC lists absent sample(s)  No, Extra sample(s) present  
 Are there samples matrices other than soil, water, air or carbon?  Yes  No  
 Are any sample containers broken, leaking or damaged?  Yes  No  
 Are preservatives indicated?  Yes, on sample containers  Yes, on COC  Not indicated  N/A  
 Are preservatives correct for analyses requested?  Yes  No  N/A  
 Are samples within holding time for analyses requested?  Yes  No  
 Are the correct sample containers used for the analyses requested?  Yes  No  
 Is there sufficient sample to perform testing?  Yes  No  
 Does any sample contain product, have strong odor or are otherwise suspected to be hot?  Yes  No  
 Receipt Details  
 Matrix WA Container type HCL WAS # of containers received 42 WA SW Amber 10  
 Matrix WA Container type N.P WAS # of containers received 30  
 Matrix WA Container type Poly # of containers received 20  
 Date and Time Sample Put into Temp Storage Date: 091009 Time: 1549

Quicklog

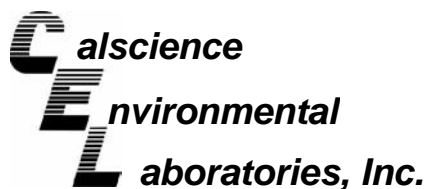
Are the Sample ID's indicated:  On COC  On sample container(s)  On Both  Not indicated  
 If Sample ID's are listed on both COC and containers, do they all match?  Yes  No  N/A  
 Is the Project ID indicated:  On COC  On sample container(s)  On Both  Not indicated  
 If project ID is listed on both COC and containers, do they all match?  Yes  No  N/A  
 Are the sample collection dates indicated:  On COC  On sample container(s)  On Both  Not indicated  
 If collection dates are listed on both COC and containers, do they all match?  Yes  No  N/A  
 Are the sample collection times indicated:  On COC  On sample container(s)  On Both  Not indicated  
 If collection times are listed on both COC and containers, do they all match?  Yes  No  N/A

COMMENTS:



# Subcontract Laboratory Report Attachments





September 17, 2009

Joel Kiff  
Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Subject: **CalScience Work Order No.: 09-09-0831**  
**Client Reference: Former Strough Chevy - Oakland**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 9/11/2009 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in cursive script that reads 'Amanda Porter'.

CalScience Environmental  
Laboratories, Inc.  
Amanda Porter  
Project Manager

## Analytical Report



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Received: 09/11/09  
Work Order No: 09-09-0831

Project: Former Strough Chevy - Oakland

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
<b>MW3</b>	<b>09-09-0831-1</b>	<b>09/10/09</b>	<b>Aqueous</b>

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
Nitrate (as N)	0.41	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
Chemical Oxygen Demand	30	5.0	1		mg/L	09/15/09	09/15/09	EPA 410.4
Total Kjeldahl Nitrogen	0.56	0.50	1		mg/L	09/10/09	09/11/09	SM 4500 N Org B

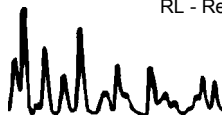
<b>MW9A</b>	<b>09-09-0831-2</b>	<b>09/10/09</b>	<b>Aqueous</b>
-------------	---------------------	-----------------	----------------

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
o-Phosphate (as P)	0.22	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
Chemical Oxygen Demand	250	20	1		mg/L	09/15/09	09/15/09	EPA 410.4
Total Kjeldahl Nitrogen	1.8	0.50	1		mg/L	09/10/09	09/11/09	SM 4500 N Org B

<b>MW9B</b>	<b>09-09-0831-3</b>	<b>09/10/09</b>	<b>Aqueous</b>
-------------	---------------------	-----------------	----------------

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
Nitrate (as N)	1.2	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
Chemical Oxygen Demand	12	5.0	1		mg/L	09/15/09	09/15/09	EPA 410.4
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	09/10/09	09/11/09	SM 4500 N Org B

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Received: 09/11/09  
Work Order No: 09-09-0831

Project: Former Strough Chevy - Oakland

Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
O1	09-09-0831-4	09/10/09	Aqueous

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
Chemical Oxygen Demand	32	5.0	1		mg/L	09/15/09	09/15/09	EPA 410.4
Total Kjeldahl Nitrogen	1.3	0.50	1		mg/L	09/10/09	09/11/09	SM 4500 N Org B

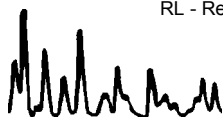
<b>MW2</b>	<b>09-09-0831-5</b>	<b>09/10/09</b>	<b>Aqueous</b>
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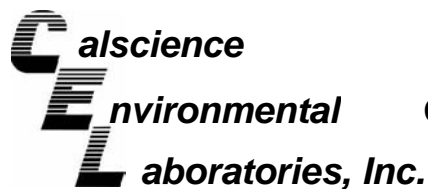
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
Nitrate (as N)	0.58	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
Chemical Oxygen Demand	71	5.0	1		mg/L	09/15/09	09/15/09	EPA 410.4
Total Kjeldahl Nitrogen	1.4	0.50	1		mg/L	09/10/09	09/11/09	SM 4500 N Org B

<b>Method Blank</b>	<b>N/A</b>	<b>Aqueous</b>
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	09/11/09	EPA 300.0
Chemical Oxygen Demand	ND	20	1		mg/L	09/15/09	09/15/09	EPA 410.4
Chemical Oxygen Demand	ND	5.0	1		mg/L	09/15/09	09/15/09	EPA 410.4
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	09/10/09	09/11/09	SM 4500 N Org B

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





## Quality Control - Spike/Spike Duplicate



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

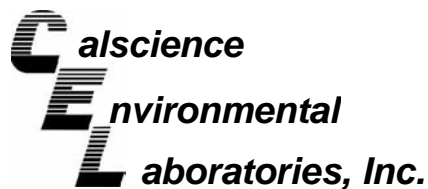
Date Received: N/A  
Work Order No: 09-09-0831

Project: Former Strough Chevy - Oakland

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>MS% REC</u>	<u>MSD % REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Nitrite (as N)	EPA 300.0	MW3	09/11/09	N/A	97	97	80-120	0	0-20	
Nitrate (as N)	EPA 300.0	MW3	09/11/09	N/A	99	99	80-120	0	0-20	
o-Phosphate (as P)	EPA 300.0	MW3	09/11/09	N/A	96	98	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Duplicate



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

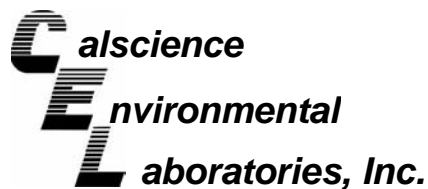
Date Received: N/A  
Work Order No: 09-09-0831

Project: Former Strough Chevy - Oakland

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>QC Sample ID</u>	<u>Date Analyzed</u>	<u>Sample Conc</u>	<u>DUP Conc</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chemical Oxygen Demand	EPA 410.4	09-09-1027-2	09/15/09	650	640	2	0-25	
Total Kjeldahl Nitrogen	SM 4500 N Org B	09-09-0660-1	09/11/09	0.56	0.56	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Received:  
Work Order No:

N/A  
09-09-0831

Project: Former Strough Chevy - Oakland

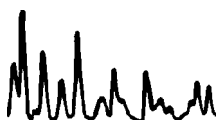
Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control</u> Sample ID	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Analyzed</u>	<u>LCS %</u> <u>REC</u>	<u>LCSD %</u> <u>REC</u>	<u>%REC</u> <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	<u>Qual</u>
Nitrite (as N)	EPA 300.0	099-12-906-464	N/A	09/11/09	96	99	90-110	3	0-15	
Nitrate (as N)	EPA 300.0	099-12-906-464	N/A	09/11/09	95	99	90-110	4	0-15	
o-Phosphate (as P)	EPA 300.0	099-12-906-464	N/A	09/11/09	93	97	90-110	4	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 09-09-0831

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.  Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.





2795 Second Street, Suite 300  
 Davis, CA 95618  
 Lab: 530.297.4800  
 Fax: 530.297.4808

Calscience  
 7440 Lincoln Way  
 Garden Grove, CA 92841-1427  
 714-895-5494

0831

COC No. 70001 Page 1 of 1

Project Contact (Hardcopy or PDF to): **Troy Turpen** EDF Report? **YES** Chain-of-Custody Record and Analysis Request

Company/Address: **Kiff Analytical** Recommended but not mandatory to complete this section: Sampling Company Log Code: **CESC** Analysis Request TAT

Phone No.: **530-297-4800** FAX No.: **530-297-4808** Global ID: **T0600101644**  
 Project Number: **M1-090910** P.O. No.: **70001** Deliverables to (Email Address): **inbox@kiffanalytical.com**

Project Name:	Container / Preservative					Matrix		Anions by EPA 300.0 (1)	Chemical Oxygen Demand	Orthophosphate	Total Kjeldahl Nitrogen	Analysis Request				4-Days	For Lab Use Only	
	Former Strough Chevy - Oakland	500 ml Amber H2SO4	250ml Poly None	250ml Poly H2SO4			Water											
Project Address:	Sampling																	
Sample Designation	Date	Time																
MW3	09/10/09	08:50	2	2	1			X	X	X	X						X	1
MW9A	09/10/09	10:00	2	2	1			X	X	X	X						X	2
MW9B	09/10/09	09:40	2	2	1			X	X	X	X						X	3
O1	09/10/09	10:45	2	2	1			X	X	X	X						X	4
MW2	09/10/09	11:15	2	2	1			X	X	X	X						X	5

Relinquished by: <i>[Signature]</i> <b>KIFF Analytical</b>	Date: <b>09/10/09</b>	Time: <b>1900</b>	Received by:	Remarks: Please refer to attached Test Detail.
Relinquished by:	Date:	Time:	Received by:	
Relinquished by: <b>OT 1310246846343</b>	Date: <b>9/11/09</b>	Time: <b>1000</b>	Received by Laboratory: <i>[Signature]</i> <b>CESC</b>	
Bill to: <b>Accounts Payable</b>				



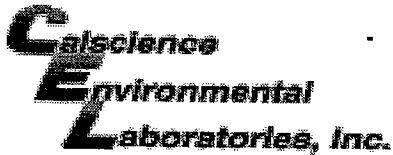
0831

# Test Detail for Kiff Work Order: 70001

**Anions by EPA 300.0 (1)**

Nitrate as N

Nitrite as N



WORK ORDER #: 09-09-0831

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: KIFF

DATE: 09/11/09

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 2.9°C - 0.2°C (CF) = 2.7°C [X] Blank [ ] Sample

[ ] Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).

[ ] Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

[ ] Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: [ ] Air [ ] Filter [ ] Metals Only [ ] PCBs Only

Initial: YL

CUSTODY SEALS INTACT:

[X] Cooler [ ] \_\_\_\_\_ [ ] No (Not Intact) [ ] Not Present [ ] N/A

Initial: YL

[ ] Sample [ ] \_\_\_\_\_ [ ] No (Not Intact) [X] Not Present

Initial: [Signature]

SAMPLE CONDITION:

Yes No N/A

Chain-Of-Custody (COC) document(s) received with samples..... [X] [ ] [ ]

COC document(s) received complete..... [X] [ ] [ ]

[ ] Collection date/time, matrix, and/or # of containers logged in based on sample labels.

[ ] COC not relinquished. [ ] No date relinquished. [ ] No time relinquished.

Sampler's name indicated on COC..... [ ] [ ] [X]

Sample container label(s) consistent with COC..... [X] [ ] [ ]

Sample container(s) intact and good condition..... [X] [ ] [ ]

Correct containers and volume for analyses requested..... [X] [ ] [ ]

Analyses received within holding time..... [X] [ ] [ ]

Proper preservation noted on COC or sample container..... [X] [ ] [ ]

[ ] Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... [ ] [ ] [X]

Tedlar bag(s) free of condensation..... [ ] [ ] [X]

CONTAINER TYPE:

Solid: [ ] 4ozCGJ [ ] 8ozCGJ [ ] 16ozCGJ [ ] Sleeve [ ] EnCores® [ ] TerraCores® [ ] \_\_\_\_\_

Water: [ ] VOA [ ] VOAh [ ] VOAna2 [ ] 125AGB [ ] 125AGBh [ ] 125AGBp [ ] 1AGB [ ] 1AGBna2 [ ] 1AGBs

[ ] 500AGB [ ] 500AGJ [X] 500AGJs [ ] 250AGB [ ] 250CGB [ ] 250CGBs [ ] 1PB [ ] 500PB [ ] 500PBna

[X] 250PB [ ] 250PBn [ ] 125PB [ ] 125PBzanna [ ] 100PJ [ ] 100PJna2 [X] 250PBS [ ] \_\_\_\_\_ [ ] \_\_\_\_\_

Air: [ ] Tedlar® [ ] Summa® [ ] \_\_\_\_\_ Other: [ ] \_\_\_\_\_ Checked/Labeled by: [Signature]

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop Reviewed by: [Signature]

Preservative: h: HCL n: HNO3 na2:Na2S2O3 Na: NaOH p: H3PO4 s: H2SO4 zanna: ZnAc2+NaOH f: Field-filtered Scanned by: [Signature]

# CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

September 18, 2009

CLS Work Order #: CSI0458  
COC #: 70001

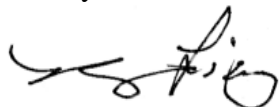
Troy Turpen  
KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

**Project Name: Former Strough Chevy - Oakland**

Enclosed are the results of analyses for samples received by the laboratory on 09/11/09 08:25. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,




James Liang, Ph.D.  
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

# CALIFORNIA LABORATORY SERVICES

KIFF Analytical 2795 Second St. Suite 300 Davis, CA 95616	Project: Former Strough Chevy - Oakland Project Number: M1-090910 Project Manager: Troy Turpen	CLS Work Order #: <b>CSI0458</b> COC #: 70001
---	--	--

CSI0458

		2795 Second Street, Suite 300 Davis, CA 95618 Lab: 530.297.4800 Fax: 530.297.4808		CLS 3249 Fitzgerald Road Rancho Cordova, CA 95742 916-638-7301		COC No. <b>70001</b>	Page 1 of 1	
Project Contact (Hardcopy or PDF to): Troy Turpen			EDF Report? <input checked="" type="checkbox"/> YES		Chain-of-Custody Record and Analysis Request			
Company/Address: Kiff Analytical			Recommended but not mandatory to complete this section:					
Phone No.: 530-297-4800 FAX No.: 530-297-4808			Sampling Company Log Code: CESC		Analysis Request		TAT	
Project Number: M1-090910 P.O. No.: 70001		Global ID: T0600101644						
Project Name: Former Strough Chevy - Oakland		Deliverables to (Email Address): inbox@kiffanalytical.com						
Project Address:			Container / Preservative		Matrix		Standard	For Lab Use Only
Sampling								
Sample Designation		Date	Time	1-L Poly None	Water	Biochemical Oxygen Demand		
MW3		09/10/09	08:50	1	X	X	X	
MW9A		09/10/09	10:00	1	X	X	X	
MW9B		09/10/09	09:40	1	X	X	X	
O1		09/10/09	10:45	1	X	X	X	
MW2		09/10/09	11:15	1	X	X	X	
Relinquished by: <i>[Signature]</i>			Date: 09/11/09	Time: 08:25	Received by: <i>[Signature]</i>			Remarks:  1.5°C Bill to: Accounts Payable
Relinquished by: _____			Date: _____	Time: _____	Received by: _____			
Relinquished by: _____			Date: _____	Time: _____	Received by Laboratory: <i>[Signature]</i> 9-11-9 8:25			

# CALIFORNIA LABORATORY SERVICES

Page 2 of 4

09/18/09 15:36

KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

Project: Former Strough Chevy - Oakland  
Project Number: M1-090910  
Project Manager: Troy Turpen

CLS Work Order #: CSI0458

COC #: 70001

## Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW3 (CSI0458-01) Water Sampled: 09/10/09 08:50 Received: 09/11/09 08:25</b>									
Biochemical Oxygen Demand	28	3.0	mg/L	1	CS06937	09/11/09	09/16/09	SM5210B	
<b>MW9A (CSI0458-02) Water Sampled: 09/10/09 10:00 Received: 09/11/09 08:25</b>									
Biochemical Oxygen Demand	110	3.0	mg/L	1	CS06937	09/11/09	09/16/09	SM5210B	
<b>MW9B (CSI0458-03) Water Sampled: 09/10/09 09:40 Received: 09/11/09 08:25</b>									
Biochemical Oxygen Demand	24	3.0	mg/L	1	CS06937	09/11/09	09/16/09	SM5210B	
<b>O1 (CSI0458-04) Water Sampled: 09/10/09 10:45 Received: 09/11/09 08:25</b>									
Biochemical Oxygen Demand	48	3.0	mg/L	1	CS06937	09/11/09	09/16/09	SM5210B	
<b>MW2 (CSI0458-05) Water Sampled: 09/10/09 11:15 Received: 09/11/09 08:25</b>									
Biochemical Oxygen Demand	17	3.0	mg/L	1	CS06937	09/11/09	09/16/09	SM5210B	

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742

www.californialab.com

916-638-7301

Fax: 916-638-4510

# CALIFORNIA LABORATORY SERVICES

KIFF Analytical 2795 Second St. Suite 300 Davis, CA 95616	Project: Former Strough Chevy - Oakland Project Number: M1-090910 Project Manager: Troy Turpen	CLS Work Order #: CSI0458 COC #: 70001
---	--	---

## Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

### Batch CS06937 - General

<b>Blank (CS06937-BLK1)</b>				Prepared: 09/11/09 Analyzed: 09/16/09						
Biochemical Oxygen Demand	ND	3.0	mg/L							
<b>LCS (CS06937-BS1)</b>				Prepared: 09/11/09 Analyzed: 09/16/09						
Biochemical Oxygen Demand	183	3.0	mg/L	167		110	82.3-138			
<b>LCS Dup (CS06937-BSD1)</b>				Prepared: 09/11/09 Analyzed: 09/16/09						
Biochemical Oxygen Demand	174	3.0	mg/L	167		104	82.3-138	5	21	

# CALIFORNIA LABORATORY SERVICES

Page 4 of 4

09/18/09 15:36

KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

Project: Former Strough Chevy - Oakland  
Project Number: M1-090910  
Project Manager: Troy Turpen

**CLS Work Order #: CSI0458**  
COC #: 70001

## Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

---

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742

www.californialab.com

916-638-7301

Fax: 916-638-4510



**Report Date: September 18, 2009**  
**Project Initiation Date: September 11, 2009**  
**Test Classification: Biological Activity Assessment**  
**Total Pages in Report: 4**

**Prepared for Kiff Analytical, LLC**  
**Troy Turpen**  
**2795 Second Street, Suite #300**  
**Davis, CA 95618**  
**(530) 297-4800**

**Prepared by RespirTek, Inc.**  
**12450 Shortcut Road**  
**Building F**  
**Biloxi, MS 39532**  
**228-392-7977**

The enclosed data relates only to those samples received by the laboratory.

This report shall not be reproduced, except in full, without written approval of the laboratory.





Project: KIF-2176  
 Date: September 18, 2009  
 Run Date: September 11, 2009

**Plate Count Results**

**Aerobic**

Sample ID	HPC/SD	Method	48 Hours	96 Hours	Comments
			Results (cfu/mL)	Results (cfu/mL)	
MW3	HPC	SM9215	410,000-430,000	620,000-660,000	Mixed Consortium
MW3	SD	SM9215 mod	48,000-51,000	64,000-68,000	Mixed Consortium
MW9A	HPC	SM9215	1,000-1,800	2,000-3,300	Limited Growth
MW9A	SD	SM9215 mod	300-700	1,000-1,400	Limited Growth
MW9B	HPC	SM9215	11,200-12,300	11,800-13,600	1 Bacterial Spreader present
MW9B	SD	SM9215 mod	14,400-19,900	17,000-21,100	1 Bacterial Spreader present
O1	HPC	SM9215	11,100-15,800	32,600-47,600	Limited Growth
O1	SD	SM9215 mod	20,900-24,400	99,000-103,000	Limited Growth
MW2	HPC	SM9215	8,500-10,900	32,000-35,000	Mold & Bacterial Spreader present
MW2	SD	SM9215 mod	11,200-11,700	40,000	Limited Growth

**Anaerobic**

Sample ID	HPC/SD	Method	48 Hours	96 Hours	Comments
			Results (cfu/mL)	Results (cfu/mL)	
MW3	HPC	SM9215	500-500	600-700	Limited Growth
MW3	SD	SM9215 mod	1,100-1,300	6,600-6,600	Limited Growth
MW9A	HPC	SM9215	0-200	0-200	Mold Present
MW9A	SD	SM9215 mod	200-300	300-400	Mold Present
MW9B	HPC	SM9215	500-700	0-8,700	Mold & Bacterial Spreader present
MW9B	SD	SM9215 mod	500-1,400	3,200-4,300	1 Bacterial Spreader present
O1	HPC	SM9215	200-800	700-1,600	Mold Present
O1	SD	SM9215 mod	1,000-1,400	1,000-7,800	Mold & Bacterial Spreader present
MW2	HPC	SM9215	1,500-2,200	3,500-10,600	Mold & Bacterial Spreader present
MW2	SD	SM9215 mod	6,100-7,200	7,800-9,200	Mold & Bacterial Spreader present

Control	Result
Air (Aerobic)	4 + 1 mold
Air (Anaerobic)	0
Dilution H2O (Aerobic)	1 mold
Dilution H2O (Anaerobic)	0
Stock Solution - Benzene (Ae)	6
Stock Solution - Benzene (An)	1
Positive Control (aerobic)	TNTC
Positive Control (anaerobic)	TNTC

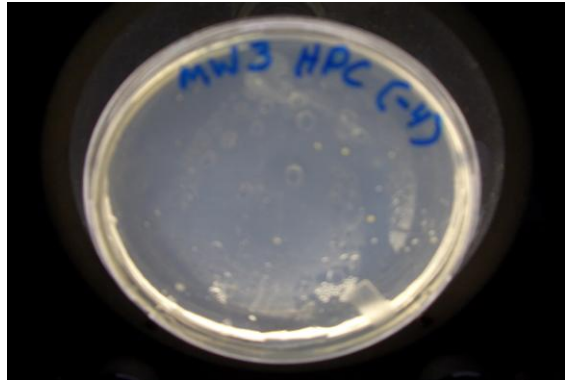
Specific Degradar(s)
20mg/L Gasoline & Diesel

TNTC: Too numerous to count  
 cfu/mL: Colony forming units per mL  
 HPC: Heterotrophic Plate Counts  
 SD: Specific Degradars

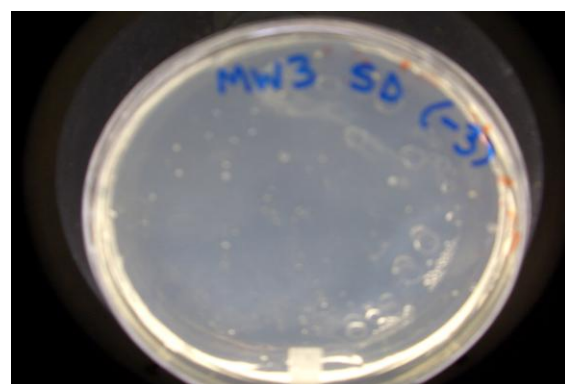
Date of Sample Collection: September 10, 2009 at 0852 (MW3), 1000 (MW9A), 0940 (MW9B), 1045 (O1), and 1115 (MW2) .

AEROBIC

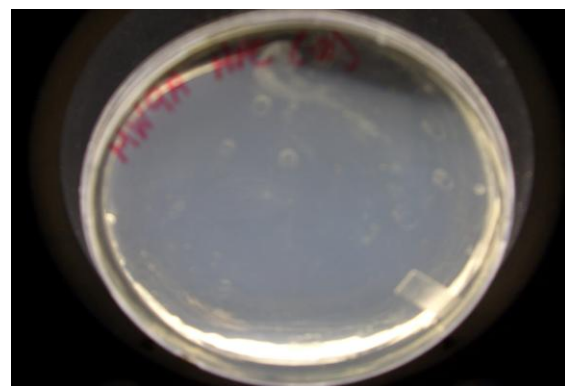
Sample MW3 HPC (-4)



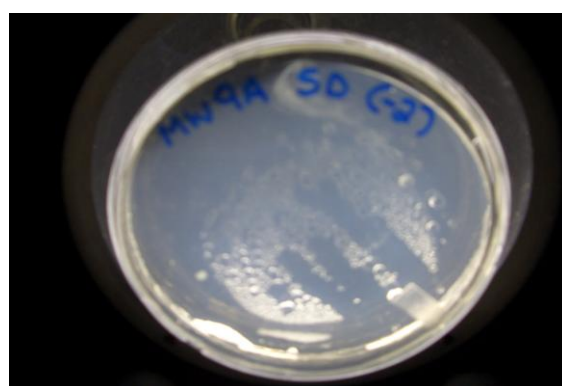
Sample MW3 SD (-3)



Sample MW9A HPC (-2)



Sample MW9A SD (-2)



Sample MW9B HPC (-2)



Sample MW9B SD (-2)



Sample O1 HPC (-3)



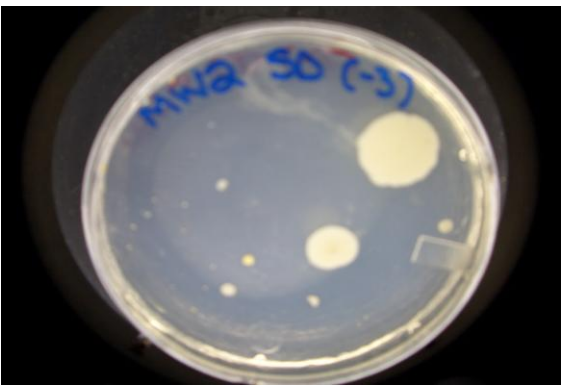
Sample O1 SD (-3)



Sample MW2 HPC (-3)

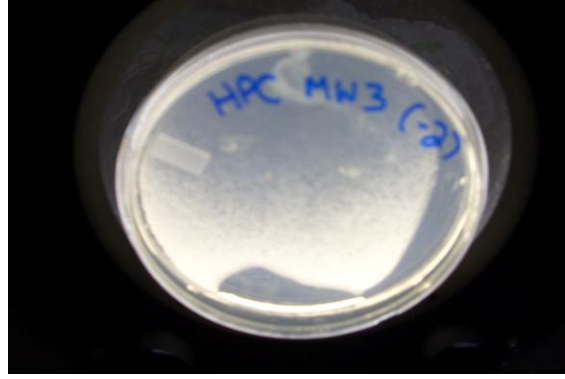


Sample MW2 SD (-3)



ANAEROBIC

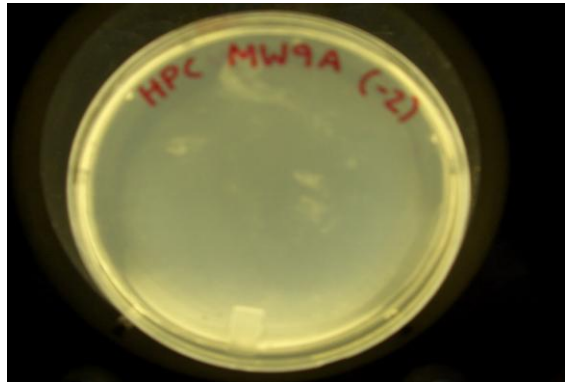
Sample MW3 HPC (-2)



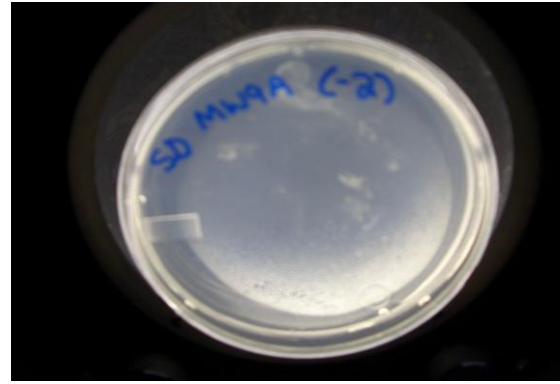
Sample MW3 SD (-2)



Sample MW9A HPC (-2)



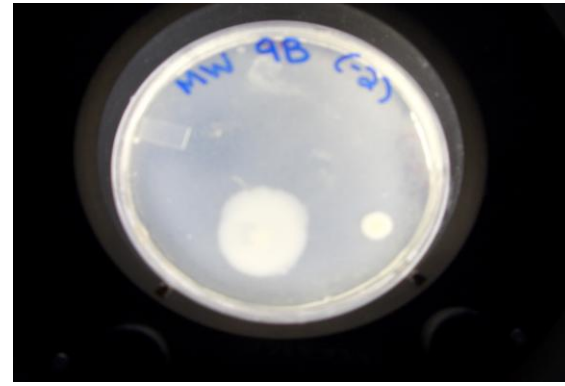
Sample MW9A SD (-2)



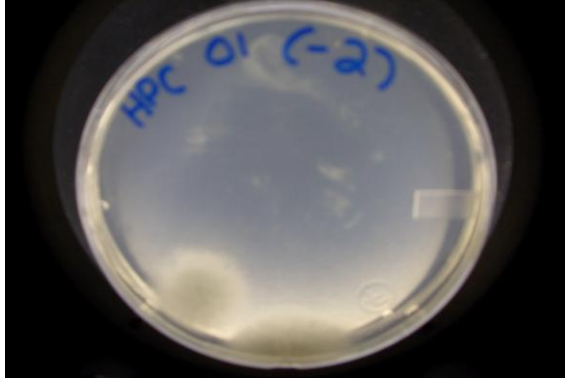
Sample MW9B HPC (-2)



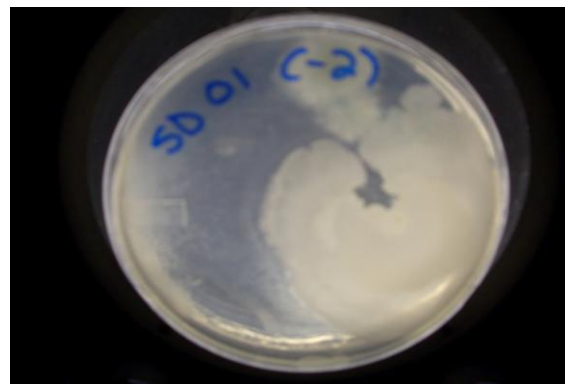
Sample MW9B SD (-2)



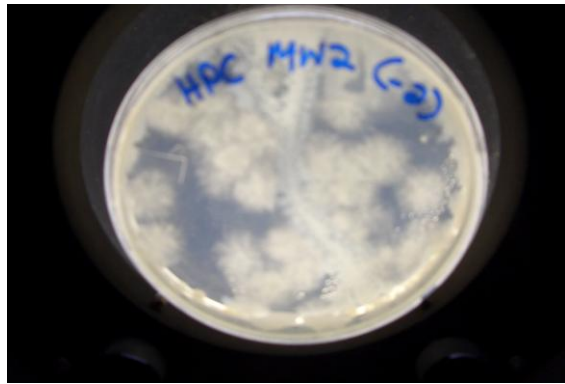
Sample O1 HPC (-2)



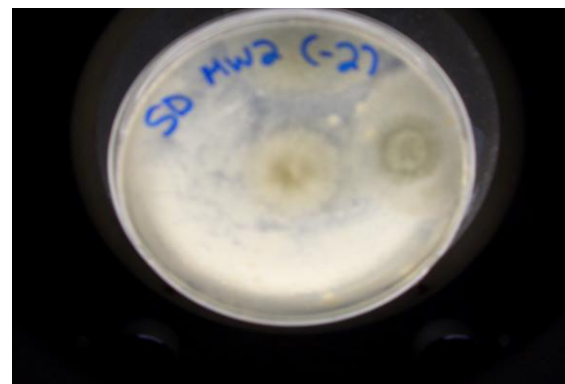
Sample O1 SD (-2)



Sample MW2 HPC (-2)



Sample MW2 SD (-2)





Mehrdad Javaherian  
LRM Consulting, Inc.  
1534 Plaza Lane, #145  
Burlingame, CA 94010

Subject : 3 Water Samples  
Project Name : Former Strough Chevy - Oakland  
Project Number : M1-090910

Dear Mr. Javaherian,

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff". The signature is written in a cursive style with a large, looping initial "J".

Joel Kiff

Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Sample : **MW6**

Matrix : Water

Lab Number : 70011-01

Sample Date :09/10/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>73</b>	0.50	ug/L	EPA 8260B	09/11/2009
<b>Tert-Butanol</b>	< 5.0	5.0	ug/L	EPA 8260B	09/11/2009
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	09/11/2009
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	09/11/2009
Toluene - d8 (Surr)	94.6		% Recovery	EPA 8260B	09/11/2009
<b>TPH as Diesel (w/ Silica Gel)</b>	< 50	50	ug/L	M EPA 8015	09/14/2009
<b>TPH as Motor Oil (w/ Silica Gel)</b>	< 100	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	111		% Recovery	M EPA 8015	09/14/2009

Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Sample : **MW7**

Matrix : Water

Lab Number : 70011-02

Sample Date :09/10/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
<b>Tert-Butanol</b>	< 5.0	5.0	ug/L	EPA 8260B	09/11/2009
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	09/11/2009
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	09/11/2009
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	09/11/2009
<b>TPH as Diesel (w/ Silica Gel)</b>	< 50	50	ug/L	M EPA 8015	09/14/2009
<b>TPH as Motor Oil (w/ Silica Gel)</b>	< 100	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	95.5		% Recovery	M EPA 8015	09/14/2009

Project Name : **Former Strough Chevy - Oakland**

Project Number : **M1-090910**

Sample : **MW8**

Matrix : Water

Lab Number : 70011-03

Sample Date :09/10/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
<b>Methyl-t-butyl ether (MTBE)</b>	2.4	0.50	ug/L	EPA 8260B	09/12/2009
<b>Tert-Butanol</b>	< 5.0	5.0	ug/L	EPA 8260B	09/12/2009
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	09/12/2009
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	09/12/2009
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	09/12/2009
<b>TPH as Diesel (w/ Silica Gel)</b>	< 50	50	ug/L	M EPA 8015	09/14/2009
<b>TPH as Motor Oil (w/ Silica Gel)</b>	< 100	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	102		% Recovery	M EPA 8015	09/14/2009

**QC Report : Method Blank Data**Project Name : **Former Strough Chevy - Oakland**Project Number : **M1-090910**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	09/14/2009
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	09/14/2009
Octacosane (Silica Gel Surr)	106		%	M EPA 8015	09/14/2009
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/11/2009
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/11/2009
1,2-Dichloroethane-d4 (Surr)	103		%	EPA 8260B	09/11/2009
Toluene - d8 (Surr)	95.2		%	EPA 8260B	09/11/2009
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/2009
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/12/2009
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/2009
1,2-Dichloroethane-d4 (Surr)	100		%	EPA 8260B	09/12/2009
Toluene - d8 (Surr)	102		%	EPA 8260B	09/12/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/11/2009
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	09/11/2009
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/11/2009
1,2-Dichloroethane-d4 (Surr)	98.4		%	EPA 8260B	09/11/2009
Toluene - d8 (Surr)	98.7		%	EPA 8260B	09/11/2009



**QC Report : Matrix Spike/ Matrix Spike Duplicate**Project Name : **Former Strough Chevy -**Project Number : **M1-090910**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)	BLANK	<50	1000	1000	1180	1140	ug/L	M EPA 8015	9/14/09	118	114	3.27	70-130	25
Benzene	70011-01	<0.50	40.6	40.6	38.5	38.0	ug/L	EPA 8260B	9/11/09	94.8	93.5	1.45	70-130	25
Methyl-t-butyl ether	70011-01	73	40.6	40.6	120	120	ug/L	EPA 8260B	9/11/09	116	116	0.0177	70-130	25
Tert-Butanol	70011-01	<5.0	202	202	188	188	ug/L	EPA 8260B	9/11/09	93.0	93.3	0.398	70-130	25
Toluene	70011-01	<0.50	40.1	40.1	36.8	36.2	ug/L	EPA 8260B	9/11/09	91.8	90.4	1.62	70-130	25
Benzene	70021-03	<0.50	40.6	40.6	39.2	38.7	ug/L	EPA 8260B	9/12/09	96.6	95.3	1.35	70-130	25
Methyl-t-butyl ether	70021-03	<0.50	40.6	40.6	41.9	41.7	ug/L	EPA 8260B	9/12/09	103	103	0.367	70-130	25
Tert-Butanol	70021-03	<5.0	202	202	211	210	ug/L	EPA 8260B	9/12/09	105	104	0.775	70-130	25
Toluene	70021-03	<0.50	40.1	40.1	39.5	38.9	ug/L	EPA 8260B	9/12/09	98.5	97.0	1.51	70-130	25
Benzene	70011-02	<0.50	40.6	40.6	39.0	38.3	ug/L	EPA 8260B	9/11/09	96.1	94.4	1.82	70-130	25
Methyl-t-butyl ether	70011-02	<0.50	40.6	40.6	38.2	37.7	ug/L	EPA 8260B	9/11/09	94.0	92.9	1.24	70-130	25
Tert-Butanol	70011-02	<5.0	202	202	200	198	ug/L	EPA 8260B	9/11/09	99.0	98.1	0.993	70-130	25
Toluene	70011-02	<0.50	40.1	40.1	39.1	38.4	ug/L	EPA 8260B	9/11/09	97.5	95.9	1.73	70-130	25

**QC Report : Laboratory Control Sample (LCS)**Project Name : **Former Strough Chevy -**Project Number : **M1-090910**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.4	ug/L	EPA 8260B	9/11/09	93.6	70-130
Methyl-t-butyl ether	40.4	ug/L	EPA 8260B	9/11/09	109	70-130
Tert-Butanol	201	ug/L	EPA 8260B	9/11/09	93.0	70-130
Toluene	39.9	ug/L	EPA 8260B	9/11/09	93.4	70-130
Benzene	40.4	ug/L	EPA 8260B	9/12/09	98.0	70-130
Methyl-t-butyl ether	40.4	ug/L	EPA 8260B	9/12/09	101	70-130
Tert-Butanol	201	ug/L	EPA 8260B	9/12/09	103	70-130
Toluene	39.9	ug/L	EPA 8260B	9/12/09	96.3	70-130
Benzene	40.0	ug/L	EPA 8260B	9/11/09	90.4	70-130
Methyl-t-butyl ether	40.6	ug/L	EPA 8260B	9/11/09	85.9	70-130
Tert-Butanol	202	ug/L	EPA 8260B	9/11/09	96.3	70-130
Toluene	40.0	ug/L	EPA 8260B	9/11/09	92.8	70-130



Confluence Environmental, Inc.  
 3308 El Camino Ave, Suite 300 # 148  
 Sacramento, CA 95821  
 916-760-7641 - main  
 916-473-8617 - fax  
 www.confluence-env.com

# Chain of Custody

70011

Project Name: Former Strough Chevy - Oakland

Job Number: 141-090910

TAT: STANDARD 5 DAY 2 DAY 24 HOUR OTHER:

Lab: <b>Kiff</b>				Site Address: 327 34th St, Oakland				Confluence PM: Jason Brown																				
Address: 2795 2nd St, Suite 300, Davis CA 95616				California Global ID No.: T0600101644				Phone / Fax: 916-760-7641 / 916-473-8617																				
Contact: Angelique Showman				Include EDF w/ Report: <u>Yes</u> No				Confluence Log Code: <b>CESC</b>																				
Phone/ Fax: 530-297-4800 x.127				Consultant / PM: LRM / Merhdad Javaherian				Report to: Merhdad Javaherian																				
				Phone / Fax: (415) 706-8935				Invoice to: Merhdad Javaherian																				
Sample ID	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis								Notes and Comments							
			Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	TEPH Diesel & Motor Oil* (8015)	IPH-G, BTEX (8260B)	MTBE, TBA (8260)	BOD (5210B)	COD (410.1)	Nitrite/ Nitrate (354.1)	TKN (4500)	Ortho-phosphate (365.3)		Microbial population heterotrophic & specific degrader plate count (9215-A)						
MW6	1215	9/10	X			5							X	X	X													01
MW7	1246	1	X			5							X	X	X													02
MW8	1305	1	X			5							X	X	X													03
Sampler's Name: <u>B. Myers</u>				Relinquished By / Affiliation: <u>[Signature]</u>				Date: <u>9/10/09</u>	Time: <u>9:45</u>	Accepted By / Affiliation: <u>[Signature]</u>				Date: <u>9/10/09</u>	Time: <u>05:45</u>													
Sampler's Company: Confluence Environmental				Shipment Date:				Shipment Method:				Special Instructions: <u>*Run TEPH w/ silica gel cleanup</u>																
												Michelle Spencer Kiff Analyzed 09/10/09 05:45																

Page 8 of 9

**SAMPLE RECEIPT CHECKLIST**

RECEIVER  
MAS  
Initials

SRG#: 70011 Date: 091109  
Project ID: Former Strough <sup>MSP</sup> Chevy Chevy - Oakland  
Method of Receipt:  Courier  Over-the-counter  Shipper

**COC Inspection**

Is COC present?  Yes  No  
 Custody seals on shipping container?  Intact  Broken  Not present  N/A  
 Is COC Signed by Relinquisher?  Yes  No Dated?  Yes  No  
 Is sampler name legibly indicated on COC?  Yes  No  
 Is analysis or hold requested for all samples  Yes  No  
 Is the turnaround time indicated on COC?  Yes  No  
 Is COC free of whiteout and uninitialed cross-outs?  Yes  No, Whiteout  No, Cross-outs

**Sample Inspection**

Coolant Present:  Yes  No (includes water)  
 Temperature °C 4.2 Therm. ID# IR-2 Initial MAS Date/Time 091109/0943  N/A  
 Are there custody seals on sample containers?  Intact  Broken  Not present  
 Do containers match COC?  Yes  No  No, COC lists absent sample(s)  No, Extra sample(s) present  
 Are there samples matrices other than soil, water, air or carbon?  Yes  No  
 Are any sample containers broken, leaking or damaged?  Yes  No  
 Are preservatives indicated?  Yes, on sample containers  Yes, on COC  Not indicated  N/A  
 Are preservatives correct for analyses requested?  Yes  No  N/A  
 Are samples within holding time for analyses requested?  Yes  No  
 Are the correct sample containers used for the analyses requested?  Yes  No  
 Is there sufficient sample to perform testing?  Yes  No  
 Does any sample contain product, have strong odor or are otherwise suspected to be hot?  Yes  No

**Receipt Details**

Matrix WA Container type VDA # of containers received 15  
 Matrix \_\_\_\_\_ Container type \_\_\_\_\_ # of containers received \_\_\_\_\_  
 Matrix \_\_\_\_\_ Container type \_\_\_\_\_ # of containers received \_\_\_\_\_  
 Date and Time Sample Put into Temp Storage Date: 091109 Time: 0943

**Quicklog**

Are the Sample ID's indicated:  On COC  On sample container(s)  On Both  Not indicated  
 If Sample ID's are listed on both COC and containers, do they all match?  Yes  No  N/A  
 Is the Project ID indicated:  On COC  On sample container(s)  On Both  Not indicated  
 If project ID is listed on both COC and containers, do they all match?  Yes  No  N/A  
 Are the sample collection dates indicated:  On COC  On sample container(s)  On Both  Not indicated  
 If collection dates are listed on both COC and containers, do they all match?  Yes  No  N/A  
 Are the sample collection times indicated:  On COC  On sample container(s)  On Both  Not indicated  
 If collection times are listed on both COC and containers, do they all match?  Yes  No  N/A

**COMMENTS:**

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