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Ms. Barbara Jakub Alameda County Health Care Services Agency 1131 Harbor Bay Parkway Alameda, CA 9502-6577 5:34 pm, Oct 08, 2012

Alameda County Environmental Health

Subject:

Former Val Strough Chevrolet Site

327 34th Street, Oakland, CA Site ID #3035, RO#0000134

Dear Ms. Jakub:

This enclosed report has been prepared by LRM Consulting, Inc. on behalf of the Strough Family Trust. 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. 534 Plaza Lane, #145, Burlingame, CA 94010

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



THIRD QUARTER 2012 GROUNDWATER MONITORING REPORT

Former Val Strough Chevrolet Site 327 34th 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

September 2012



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1.0 INTRODUCTION

At the request of the Strough Family Trust of 1983, LRM Consulting, Inc. (LRM) has prepared this Third Quarter 2012 Groundwater Monitoring Report for the former Val Strough Chevrolet located in Oakland, California. This report documents the procedures and findings of the September 6, 2012 groundwater monitoring event reflecting water level and/or quality reporting for eleven onsite 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 ACHCSAapproved program, which for this quarter corresponds to gauging and sampling from all eleven site wells (MW1, MW2, MW3, MW4, MW6, MW6, MW7, MW8, MW9A, MW9B, and O1). Well MW8 was not accessible during this monitoring event. Groundwater monitoring data and well construction details are shown on the figures and presented in the tables. Field data and laboratory analytical results are provided in the appendices.

1.1 **General Site Information**

Former Val Strough Chevrolet Site name: 327 34th Street, Oakland, California **Site address:** Strough Family Trust of 1983

Current property owner:

Automotive Dealership and Service Center **Current site use:**

Groundwater monitoring and evaluation of need and **Current phase of project:**

approaches for additional remediation

Two former tanks (1 gasoline, 1 waste-oil) removed in Tanks at site:

1993

Number of wells: 11 (all onsite)

Site ID #: 3035 **RO** #: 0000134

1.2 **Site Contacts**

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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 34th 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. Eleven groundwater monitoring wells are located at the site. Construction details for the wells are presented in Table 1.

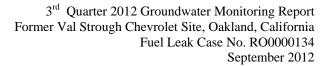
Underground Utilities: A box culvert for a former tributary of Glen Echo Creek is located approximately 17 feet below ground surface (bgs) in the eastern portion of the site (Figure 2). The culvert consists of a reinforced concrete box measuring 5 feet by 6 feet. During the winter of 1983, a section 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 34th Street, a storm sewer pipeline flows toward the east and into the box culvert. Sanitary sewer lines run parallel to both 34th 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 34th 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 MW2, MW3, and 9A, and have been subject to removal via hand-bailing as they occurred. The available 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. Additional wells installed within this residual source area include MW9A/9B and O1.

Petroleum Hydrocarbon Distribution in Groundwater: The highest concentrations of petroleum hydrocarbons have been detected in samples collected from wells MW2, MW3, MW9A/9B, and O1, located immediately downgradient of the former USTs and within the previously defined residual source area. Significantly lower levels of petroleum hydrocarbons have been detected in samples collected from well MW4 and the other site wells located downgradient and outside of the residual source area. 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 MW5, MW6, MW7, and MW8 (Tables 2 and 3).



2.3 Summary of Interim Remedial Action Activities

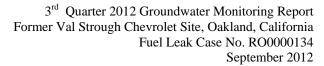
In addition to the routine groundwater monitoring activities, remediation pilot testing and remediation activities were conducted at the site between 2004 and 2006. A summary of these activities and associated regulatory correspondence with the ACHCSA are presented below:

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 MW2 and MW3 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 (MW2 and/or MW3). 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 MW2 and MW3 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 MW2 and MW3. 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 – September 2010. LRM Consulting, Inc. IRAP Activities: 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.

The investigation activities associated with the IRAP, including installation of an additional monitoring wells MW9A and MW9B, were completed by July 2009. On January 13, 2010, an addendum to the IRAP was prepared by LRM, reflecting a proposed change from iSOC technology originally outlined in the IRAP, due to hydrocarbon concentrations which were determined to be too elevated for treatment via iSOC technology. Specifically, pilot testing of in-situ chemical oxidation (ISCO) technology was proposed for the residual source area instead of iSOC. The IRAP Addendum was approved by the ACHCSA in a letter dated April 22, 2010.

The IRAP pilot testing included three rounds of RegenOx injections from August 15th through September 13th within a depth interval of 15 to 40 feet below ground surface (bgs), per the approved IRAP. All IRAP activities were reported to the ACHCSA via a Technical Memorandum dated October 6, 2010, with post-injection groundwater monitoring results documented in subsequent groundwater monitoring events. To summarize, over 9,500 gallons of RegenOx was injected into the residual source area via 20 direct-push borings across the three injection events. The table below summarizes the pre- and post-injection groundwater concentrations within the residual source area.



Pre- and Post-Injection Groundwater Quality Data Former Val Strough Chevrolet Site, Oakland, CA

		SPH		Con	centration (µ	g/L)			
Well		Thickness			Ethyl-	Total		DO	
Number	Date	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	(mg/L)	Comment
MW2	05/28/10	0.00	260	1,100	650	4,700	23,000	2	Pre-injection event
MW2	08/26/10	0.00	160	980	490	4,200	22,000	16	Sampling following first injection event
MW2	09/20/10	0.00	52	360	210	1,600	8,800	18	Sampling following third injection event
MW2	12/22/10	0.00	130	1,100	430	6,000	26,000	1.6	Sampling two months after final (3rd) injection event
MW2	03/16/11	0.00	430	1700	490	3,700	29,000	3.5	Sampling six months after final (3rd) injection event
MW3	05/28/10	0.00	1,200	4,600	920	4,800	31,000	2	Pre-injection event
MW3	08/26/10	sheen		Not	Sampled du	e to Free Pro	duct		Sampling following first injection event
		SPH Sheen-							
MW3	09/20/10	Removed	2,700	13,000	2,900	18,000	110,000	11.3	Sampling following third injection event
MW3	12/22/10	0.20		Not	Sampled du	e to Free Pro	duct		Sampling two months after final (3rd) injection event
									Four weekly SPH bailing events performed from 1/6/11 to 2/6/11. No SPHs detected after 2/6/11.
	00/44/44	0.00	4.000	4 4 0 0 0	• 000	4 = 000	04.000		
MW3	03/16/11	0.00	4,000	16,000	2,800	15,000	91,000	4.2	Sampling six months after final (3rd) injection event
		1							
MW9A	05/28/10	0.02			Sampled du			1	Pre-injection event
MW9A	08/26/10	0.00	2,600	19,000	3,000	22,000	150,000	10.3	Sampling following first injection event
MW9A	09/21/10	0.00	1,400	9,600	1,600	12,000	70,000	20.9	Sampling following third injection event
MW9A	12/22/10	0.00	4,400	17,000	1,900	13,000	83,000	NA	Sampling two months after final (3rd) injection event
MW9A	03/16/11	0.00	4,900	22,000	2,800	20,000	130,000	1.5	Sampling six months after final (3rd) injection event
MW9B	05/28/10	0.00	31	75	150	270	2,900	2	Pre-injection event
MW9B	08/26/10	0.00	13	160	310	2,000	14,000	40	Sampling following first injection event
MW9B	09/20/10	0.00	6.7	110	140	830	6,200	26.9	Sampling following third injection event
MW9B	12/22/10	0.00	< 0.5	2.6	1.1	9.9	140	5.3	Sampling two months after final (3rd) injection event
MW9B	03/16/11	0.00	22	39	47	290	3,500	4.5	Sampling six months after final (3rd) injection event
O1	05/28/10	0.00	610	2,000	1,000	4,200	21,000	1.4	Pre-injection event
O1	08/26/10	0.00	29	160	59	680	5,000	39	Sampling following first injection event
O1	09/20/10	0.00	24	140	28	330	2,000	24.7	Sampling following third injection event
O1	10/00/10	0.00	0.0	2.5	2.4	20	460	2.2	6 1 4 6 6 1(2.1) 1 4
01	12/22/10 03/16/11	0.00	9.8 200	35 440	3.4 240	30 850	460 6,900	2.3	Sampling two months after final (3rd) injection event Sampling six months after final (3rd) injection event

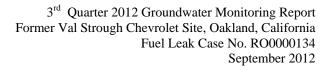
Notes:

Data collected on 5/28/10 represents baseline sampling event and corresponds to 2nd Quarter 2010 groundwater monitoring event
Data collected on 8/26/10 represents sampling event following first round of RegenOx injection that was conducted from August 15 to 17, 2010.
Data collected on 9/20/10 represents sampling event following the third round of RegenOx injection that was conducted from September 12 to 13, 2010.

As

indicated in the above table, the following observations were made in each of the following wells:

- MW2: ISCO injections resulted in a reduction in TPH-g concentrations from 23,000 ug/L to 8,800 ug/L; however, within 2 to six months after the final injection event, the TPH-g concentrations rebounded to pre-injection concentrations.
- MW3: ISCO injections appear to have resulted in induced migration of previously trapped SPHs near this well to flow into this well; hence, sampling of groundwater was limited in this well during ISCO activities. SPHs have been bailed out of this well per ACHCSA request and TPH-g concentrations remain at elevated levels.
- MW9A: ISCO injections resulted in a decline in TPH-g concentration from a preinjection concentration of 150,000 ug/L to a concentration of 70,000 ug/L. Six





months following the final injection event, the TPH-g concentrations rebounded to pre-injection concentrations.

- MW9B: TPH-g concentrations increased from 2,900 ug/L to 14,000 ug/L following the first injection event (likely due to dissolution of adsorbed hydrocarbons in soils), but declined significantly (to 140 ug/L) during the subsequent injection events. Six months following termination of injection activities, the TPH-g concentration in this well has rebounded to pre-injection levels.
- O1: TPH-g concentrations in this well declined from a pre-injection concentration of 21,000 ug/L to 460 ug/L. Rebounded concentrations (6,900 ug/L) remain significantly below the pre-injection concentration six months after the final injection event.

Based on the ISCO pilot test results, it is evident that ISCO can be an effective technology in reducing hydrocarbon concentrations within the residual source area, including dissolution of concentrated hydrocarbons adsorbed to soils and reductions of dissolved TPH-g concentrations from 150,000 ug/L to 70,000 ug/L in a short period. The pilot test further revealed the ability of this technology to increase dissolved oxygen (DO) levels in injection areas, creating conditions for longer-term, natural biodegradation; however, the post-pilot test results further indicate that a significant hydrocarbon mass, including residual SPHs, remains trapped in the fine-grained soils within the localized residual source area, capable of yielding elevated dissolved concentrations following cessation of ISCO injections.

While SPHs observed during the pilot testing were bailed and remained absent during the two quarterly monitoring events (including the second quarter 2011 monitoring event) following the pilot testing, SPHs remain trapped near existing monitoring wells within the residual source area; this is evidenced by the results of this 4th Quarter 2011 monitoring event. Combined, these data suggest that a larger-scale application (i.e, compared to a pilot-scale application applied per the IRAP) of RegenOx is necessary to reduce and maintain lower levels of hydrocarbon impacts in groundwater within the residual source area; however, these applications may be greatly benefited by a broader effort to remove SPHs in advance of the ISCO injections.

To this end and per the ACHCSA's request, LRM prepared a Corrective Action Plan (CAP) which has been approved and finalized following completion of ACHCSA and the public review process. The CAP outlines two preferred remedial alternatives to address groundwater and SPH impacts in the residual source area, with permitted DPE activities to address SPHs initiated on July 2, 2012. Correspondingly, this round of monitoring represents the first round of post-DPE remediation activities. A DPE remediation startup memorandum is under preparation and will be submitted to the ACHCSA under separate cover.



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 September 6, 2012. The scope of work for the quarterly groundwater monitoring event at the site is listed below.

- Checking all wells for SPHs.
- Gauging the depth to groundwater in all eleven site wells.
- Purging the monitoring wells prior to sampling.
- Collecting and analyzing groundwater samples from select onsite wells (see Table 4).
- 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 eleven 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. Field data forms are presented in Appendix A, indicating the absence of SPHs within the residual source area during this round of monitoring.

3.2 Well Purging

Following well gauging, three well casing volumes of water were purged from wells scheduled to be sampled, and field parameters including temperature, pH, specific conductance, turbidity, dissolved oxygen (DO) and oxidation-reduction potential (ORP) were measured; these data are summarized in Appendix A.

3.3 Groundwater Sampling

After purging, groundwater was sampled at each of the wells scheduled to be sampled 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 B.



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 detected during this round of monitoring.

4.2 Groundwater Elevation and Hydraulic Gradient

The groundwater elevation contour map (Figure 2) for this monitoring event was constructed based on depth-to-groundwater measurements collected during the current sampling event. The DPE remediation system was turned off 24 hours prior to the monitoring event. Depth-to-groundwater measurements and calculated groundwater elevations are presented in Table 2.

On September 6, 2012, the depth to groundwater beneath the site ranged from 14.66 (MW8) to 29.1 (MW5) feet bgs (Table 2). Groundwater elevations in the site wells ranged from 36.61 feet msl in MW2 to 42.61 feet in MW1 (Figure 2). Using the results from the first quarter 2012 monitoring event, the hydraulic gradient is estimated at an average of 0.013 ft/ft, with a general flow direction away from the residual source area toward the southwest (see Figure 2).

Residual source area wells MW2, MW3, and O1 yielded water levels that were approximately 5 to 9 feet below those from the previous quarter. This is largely due to the effects of DPE operations in MW2 and MW3 beginning in July 2012, which served to lower water level elevations across the residual source area. MW9A (2.09 feet water level reduction) and MW9B (2.15 feet water level reduction) reported water levels that were approximately 2 feet below those from the previous quarter, suggesting lesser magnitude influence from the DPE operations.

4.3 Groundwater Analytical Results

On September 6, 2012, groundwater samples were collected from wells MW1, MW2, MW3, MW4, MW5, MW6, MW7, MW9A, MW9B, and 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.

Analytical results for this event are presented on Figure 3, and historical petroleum hydrocarbon analytical results are presented in Table 2. Copies of the chain-of-custody and laboratory analytical reports for the groundwater samples are presented in Appendix B. Laboratory analytical results for petroleum hydrocarbons are summarized below:

• TPH-g was detected in samples collected from wells MW2, MW3, MW4, MW9A, MW9B, and O1. The maximum TPH-g concentration was detected at well MW9A

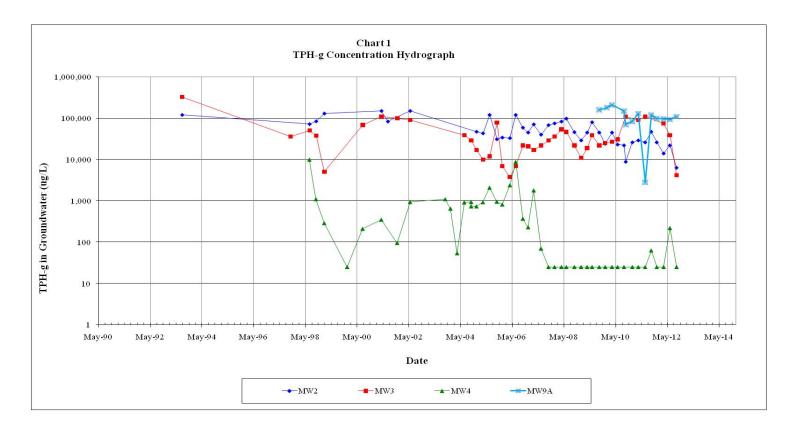


(110,000 μ g/L); however, TPH-g concentrations at MW2 (from 22,000 to 6,300 μ g/L), MW3 (from 39,000 to 4,200 μ g/L), MW9B (from 1,400 to 230 μ g/L), and O1 (from 8,500 to 1,100 μ g/L) significantly reduced relative to the previous quarter as a result of DPE operations initiated in July 2012.

- Benzene was detected in the samples collected from wells MW2, MW3, MW9A, MW9B, and O1. The maximum benzene concentration was detected at well MW9A (2,800 μg/L). As shown in Table 2, these concentrations mark a decline relative to the previous quarter, due largely to DPE operations within the residual source area.
- Toluene was detected at wells MW2, MW3, MW9A, MW9B, and O1. The maximum toluene concentration was detected at well MW9A (11,000 µg/L). As shown in Table 2, these concentrations mark a decline relative to the previous quarter, due largely to DPE operations within the residual source area.
- Ethylbenzene was detected at wells MW2, MW3, MW9A, MW9B, and O1. The maximum ethylbenzene concentration was detected at well MW3 (1,800 µg/L). With the exception of MW9A, these concentrations mark a significant decline relative to the previous quarter, due largely to the DPE operations.
- Total xylenes were detected at wells MW2, MW3, MW4, MW9A, MW9B, and O1. The maximum xylenes concentration was detected at MW9A (13,000 µg/L). With the exception of MW9A, these concentrations mark a significant decline relative to the previous quarter, due largely to the DPE operations.
- MTBE was detected in the samples from MW2, MW3, MW4, MW6, MW9A, MW9B, and O1. The maximum MTBE concentration occurred at well MW9A (420 μg/L). Relative to the previous quarter, MTBE reduced significantly in source area wells, due largely to the DPE operations.
- TPH-d was not detected in groundwater samples collected from any of the sampled wells this quarter.
- TPH-mo was detected in one sample (MW9A), but remained undetected in groundwater samples collected from the other sampled wells this quarter.

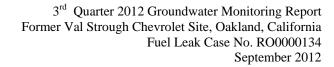
The above results are generally consistent with past quarters, with the exception that source area wells MW2, MW4, MW9B, and O1 reported TPH-g, BTEX, and MTBE concentrations that were significantly below those detected in previous quarters, marking the effects of DPE remediation efforts started in July 2012. The chart below depicts TPH-g concentration trends for wells MW2, MW3, and MW9A located within the residual source area, and MW4 located approximately 50 feet downgradient of the residual source area.





As indicated on the chart and in Table 2, the TPH-g concentrations declined in residual source area wells MW2, MW3, MW9B, and O1, owing to operation of DPE remediation activities at MW2 and MW3 starting in July 2012. While well MW9A was hydraulically influenced by DPE operations (see Table 2 for water level declines), hydrocarbon concentrations in this well remain elevated after three months of DPE operations. These results, in addition to plans to adjust DPE activities to extract from MW-9A, will be documented in the remediation startup report to be submitted to the ACHCSA under separate cover.

As shown on the graphic above, away from the residual source area and no more than 50 feet away from the residual source area wells MW2, MW3, and MW9A, hydrocarbon concentrations in well MW4 remain predominantly at non-detect levels, with sporadic detections at residual levels for the past 4 years. In addition, routine sampling from other onsite downgradient wells (MW5, MW6, MW7, and MW8) have not contained detectable levels of TPH-g or BTEX for at least the past two years, with detections in these wells being limited to low-levels of MTBE (see Table 2).





5.0 PLANNED ACTIVITIES

5.1 Remediation Related Activities

Remediation activities at the site continue with DPE operations and related O&M activities ongoing until such time that mass removal rates from the DPE operations show a decline. As

will be discussed in the parallel document summarizing remediation startup activities for the site, LRM plans to extend DPE activities to MW9A, allowing for increased mass removal and reduction of hydrocarbon concentrations in MW9A, as has been observed in MW2, MW3, MW9B, and O1.

5.2 Planned Monitoring Activities

Quarterly monitoring per the ACHCSA-approved plan will continue, with the next round (Fourth Quarter 2012) scheduled for December 2012 (Table 4).



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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	65.91	PVC	40	2	15 to 40	0.020	13 to 40	#3 Sand
MW9A	7/15/2009	65.90	PVC	25	2	15 to 25	0.020	14 to 25	#3 Monterey Sand
MW9B	7/15/2009	65.85	PVC	39	2	29 to 39	0.020	28 to 39	#3 Monterey sand

Abbreviations:

ft bgs feet below ground surface

PVC Polyvinyl chloride.

Note:

* Elevations Based on Survey Conducted in 1st Quarter 2009 relative to NAVD88 datum. Wells O1, MW9A, and MW9B were surveyed on November 12, 2009.

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

		Casing		Depth to	GW	SPH				Conce	ntration (µg	;/L)			
Well		Elevation		Water	Elevation	Thickness			Ethyl-	Total					
Number	Date	(feet)		(feet)	(feet)	(feet)	Benzene	Toluene	benzene	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								2.4	
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								1.2	
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		1.2		0.01					
MW1 MW1	11/20/01	64.69	b L	21.36	43.33	0.00	< 0.50	1.3	< 0.50	0.81	<50	<50	<300	<2.0	
MW1 MW1	02/19/02	64.69	b L	18.95	45.74	0.00	 -0.50	 -0.50			 -50			 -2.0	
MW1 MW1	05/21/02	64.69	b	19.82	44.87 44.76	0.00	< 0.50	< 0.50	< 0.50	< 0.50	<50	<50	<300	<2.0	
MW1 MW1	06/27/03 09/29/03	64.69 64.69	b	19.93 21.24		0.00	<0.50	<0.50	<0.50	 <1.0	 <50	 <50	<500	 -0.50	
			b L		43.45					<1.0		58		<0.50	
MW1 MW1	12/12/03 03/15/04	64.69 64.69	b b	21.27 18.18	43.42 46.51	0.00	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	1.1 <1.0	<50 <50	>50 <50	<500 <500	<0.50 <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								<0.50 	
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	
MW1	06/03/08	64.69	b	20.70	43.99	0.00									
MW1	09/25/08	64.69	b	22.30	42.39	0.00	< 0.50	< 0.50	< 0.50	< 0.50	<50	<50	<100	0.57	< 5.0
MW1	12/29/08	64.69	b	21.77	42.92	0.00	< 0.50	<0.50	<0.50	< 0.50	<50	<50	<100	< 0.50	<5.0
MW1	03/24/09	64.71	1	18.68	46.03	0.00	< 0.50	<0.50	<0.50	< 0.50	<50	<50	<100	< 0.50	<5.0
MW1	06/02/09	64.71	1	19.60	45.11	0.00	< 0.50	<0.50	<0.50	< 0.50	<50	<50	<100	< 0.50	<5.0
MW1	09/10/09	64.71	1	21.20	43.51	0.00	<0.50	<0.50	<0.50	< 0.50	<50	<50	<100	<0.50	<5.0
MW1	12/04/09	64.71	1	22.86	43.31	0.00	< 0.50	<0.50	<0.50	< 0.50	<50	<50	<100	< 0.50	<5.0
141 44 1	12/04/09	04./1	1	22.00	41.03	0.00	\U.JU	√ 0.30	√ 0.30	√ 0.50	\J 0	<50	<100	\U.JU	<3.0

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

		Casing		Depth to	GW	SPH				Conce	ntration (µg	;/L)			
Well		Elevation		Water	Elevation	Thickness			Ethyl-	Total					
Number	Date	(feet)		(feet)	(feet)	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA
MW1	03/10/10	64.71	1	21.06	43.65	0.00	< 0.50	0.97	< 0.50	1.6	< 50	< 50	< 100	< 0.50	
MW1	05/28/10	64.71	1	21.19	43.52	0.00									
MW1	08/26/10	64.71	1	21.82	42.89	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	<100	< 0.50	
MW1	12/22/10	64.71	1	21.42	43.29	0.00									
MW1	03/16/11	64.71	1	19.18	45.53	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	< 0.50	
MW1	03/16/11	64.71	1	19.18	45.53	0.00									
MW1	06/21/11	64.71	1	19.18	45.53	0.00									
MW1	09/14/11	64.71	1	20.87	43.84	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	< 0.50	
MW1	12/01/11	64.71	1	21.69	43.02	0.00									
MW1	03/08/12	64.71	1	21.51	43.20	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	< 0.50	
MW1	06/04/12	64.71	1	19.31	45.40	0.00									
MW1	09/06/12	64.71	1	22.10	42.61	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	< 0.50	
MW2	07/27/93	101.27	a	22.10	79.17	0.00	10,000	27,000	2,900	20,000	120,000				
MW2	10/02/97	101.27	a	22.91	78.36	0.43	*	*	*	*	*	*	*	*	
MW2	06/30/98	101.27	a	19.69	81.58	0.45	7,300	18,000	2,500	15,600	72,000			5,500	
MW2	07/29/98	101.27	a	20.11	81.16	0.29									
MW2	08/26/98	101.27	a	20.54	80.73	0.08									
MW2	10/01/98	101.27	a	21.52	79.75	0.42	6,400	17,000	2,600	17,000	84,000			2,000	
MW2	10/30/98	101.27	a	21.54	79.73	0.10									
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			2 600		150,000	1.500		2 600	
MW2 MW2	04/10-11/01	101.27	a	19.98	81.29	0.00	8,000 5,000	22,000	2,600	23,500	150,000	1,500	<600	3,600	
	07/10/01	101.27 65.95	a	21.85 22.75	79.42 43.20	0.00	5,900	15,000	2,300	12,100	83,000	5,700	<1,500	2,800	
MW2 MW2	11/20/01 02/19/02	65.95	b 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				20,000			<5,000		
MW2	09/29/03	65.95	b	23.04	42.91	0.48	*	*	*	*	*	*	*	*	
MW2 ^e	12/12/03	65.95	b	22.75	43.31	0.16	*	*	*	*	*	*	*	*	
MW2 ^e	03/15/04	65.95	b	19.24	46.72	0.01	*	*	*	*	*	*	*	*	
MW2 ^e	06/24/04	65.95	b	22.10	44.06	0.31	*	*	*	*	*	*	*	*	
MW2 ^e	09/29/04	65.95	b	22.81	43.14	sheen	*	*	*	*	*	*	*	*	
MW2 ^e	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	
$MW2^{j}$	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	

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

		Casing		Depth to	GW	SPH				Conce	ntration (µg	;/L)			
Well		Elevation		Water	Elevation	Thickness			Ethyl-	Total	4.8				
Number	Date	(feet)		(feet)	(feet)	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA
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	1	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	1	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	1	22.40	43.31	0.00	700	3,000	1,300	9,400	45,000	< 8000	190	370	220
MW2	12/04/09	65.71	1	24.30	41.41	0.00	290	1,500	930	4,900	24,000	< 2000	170	200	92
MW2	03/10/10	65.71	1	22.20	43.51	0.00	200	1,300	700	9,500	45,000	< 6,000	< 100	340	
MW2	05/28/10	65.71	1	22.41	43.30	0.00	260	1,100	650	4,700	23,000	< 8000	170	380	
MW2	08/26/10	65.71	1	23.00	42.71	0.00	160	980	490	4,200	22,000	<2000	<100	180	
MW2	09/20/10	65.71	1	NM	NC	0.00	52	360	210	1,600	8,800				
MW2	12/22/10	65.71	1	22.47	43.24	0.00	130	1,100	430	6,000	26,000	<3000	<100	640	
MW2	03/16/11	65.71	1	19.00	46.71	0.00	430	1700	490	3700	29,000	< 3000	190	500	
MW2	06/21/11	65.71	1	20.10	45.61	0.00	640	2100	680	4000	26,000	< 3000	< 100	660	
MW2	09/14/11	65.71	1	21.97	43.74	0.00	460	3200	1200	7600	47,000	< 30000	520	380	
MW2	12/01/11	65.71	1	22.73	42.98	0.00	350	2,200	1,100	4,600	26,000	<1000	<100	510	
MW2	03/08/12	65.71	1	22.62	43.09	0.00	150	1000	560	2500	14,000	< 200	< 100	200	
MW2	06/04/12	65.71	1	20.31	45.40	0.00	380	2,000	560	3,200	22,000	<100	<100	320	
MW2	09/06/12	65.71	1	29.10	36.61	0.00	220	520	130	780	6,300	< 50	< 100	18	
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									
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	*	*	*	*	*	*	*	*	

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

		Casing		Depth to	GW	SPH				Conce	ntration (µg	g/L)			
Well		Elevation		Water	Elevation	Thickness			Ethyl-	Total					
Number	Date	(feet)		(feet)	(feet)	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA
MW3 ^e	12/12/03	65.99	b	22.73	43.27	0.01	*	*	*	*	*	*	*	*	
MW3 ^e	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	
$MW3^{j}$	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	1	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	1	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	1	22.32	43.38	0.00	1,800	3,900	790	3,500	22,000	< 1500	< 100	190	110
MW3	12/04/09	65.70	1	24.20	41.50	0.00	1,600	3,400	860	3,900	25,000	< 800	< 100	210	81
MW3	03/10/10	65.70	1	22.03	43.67	0.00	420	2,400	640	3,600	27,000	< 3,000	< 100	24	
MW3	05/28/10	65.70	1	22.84	42.86	0.00	1,200	4,600	920	4,800	31,000	< 5000	< 100	120	
MW3	08/26/10	65.70	1	23.42	42.28	sheen									
MW3	09/20/10	65.70	1	NM	NC	sheen	2700	13000	2900	18000	110000				
MW3	12/22/10	65.70	1	22.70	43.00	0.20									
MW3	03/16/11	65.70	1	20.13	45.57	0.00	4000	16000	2800	15000	91000	< 3000	< 100	230	
MW3	06/21/11	65.70	1	20.20	45.50	0.00	5200	16000	3200	18000	110000	< 10000	130	490	
MW3	09/14/11	65.70	1	22.15	43.55	0.17									
MW3	12/01/11	65.70	1	22.86	42.84	0.02	2 400	11.000	2200	10000	75000		150	220	
MW3	03/08/12	65.70	1	22.69	43.01	0.00	3,400	11,000	2200	10000	75000	< 2000	150	330	
MW3 MW3	06/04/12	65.70	1	20.28	45.42	0.00	2,500 70	5,600 190	1,100	4,000	39,000	<100	<100	280	
IVI W 3	09/06/12	65.70	1	27.50	38.20	0.00	70	190	160	540	4,200	< 200	< 100	20	
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									

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

		Casing	1	Depth to	GW	SPH				Conce	ntration (µg	;/L)			
Well		Elevation		Water	Elevation	Thickness			Ethyl-	Total					
Number	Date	(feet)		(feet)	(feet)	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA
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									
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		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		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		1	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	1	19.32	45.05	0.00	0.64	< 0.5	< 0.5	< 0.5	< 50	< 50	<100	320	< 5.0
MW4	09/10/09		1	21.00	43.37	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	280	< 5.0
MW4	12/04/09		1	22.76	41.61	0.00	< 0.50	< 0.50	< 0.50	2.9	< 50	< 50	< 100	430	< 5.0
MW4	03/10/10	64.37	1	20.87	43.50	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	130	
MW4	05/28/10		1	21.07	43.30	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	140	
MW4	08/26/10	64.37	1	21.71	42.66	0.00	< 0.50	< 0.50	< 0.50	2.0	< 50	< 50	<100	160	
MW4	12/02/10		1	21.21	43.16	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	<100	50	
MW4	03/16/11		1	18.82	45.55	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	<100	220	
MW4	06/21/11		1	18.95	45.42	0.00	0.70	< 0.50	1.4	< 0.50	< 50	< 50	< 100	220	
MW4	09/14/11		1	20.68	43.69	0.00	< 0.50	< 0.50	< 0.50	2.9	63	< 50	< 100	150	
MW4	12/01/11	64.37	1	21.59	42.78	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	<100	200	
MW4	03/08/12		1	21.32	43.05	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	<100	210	
MW4	06/04/12		1	19.01	45.36	0.00	35.00	1.10	19.0	6.1	220.0	< 50	<100	160	
MW4	09/06/12	64.37	1	21.88	42.49	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	240	
MW5	06/30/98	100.9	a	20.60	80.30	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50			23	

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

		Casing		Depth to	GW	SPH				Conce	ntration (µg	;/L)			
Well		Elevation		Water	Elevation	Thickness			Ethyl-	Total	γ.ε				
Number	Date	(feet)		(feet)	(feet)	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA
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		1.2	1.5						
MW5	03/14/05	65.59	b L	20.18	45.41	0.00	< 0.50	1.3	1.5	8.6	82	<50	<500	< 0.50	
MW5 MW5	06/15/05 09/26/05	65.59	b L	12.96 23.60	52.63 41.99	0.00									
MW5	12/12/05	65.59 65.59	b 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	<0.50 	<0.50 	<0.50 	<0.50 				<0.50 	
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	1	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	1	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	1	24.12	41.47	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	0.56	< 5.0
MW5	12/04/09	65.59	1	dry		0.00									
MW5	03/10/10	65.59	1	25.90	39.69	0.00	< 0.50	< 0.50	< 0.50	< 0.50	55	< 50	< 100	0.71	
MW5	05/28/10	65.59	1	25.54	40.05	0.00									
MW5	08/26/10	65.59	1	25.59	40.00	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	<100	0.52	
MW5	12/22/10	65.59	1	24.80	40.79	0.00									

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

		Casing		Depth to	GW	SPH				Conce	ntration (µg	:/L)			
Well		Elevation		Water	Elevation	Thickness			Ethyl-	Total					
Number	Date	(feet)		(feet)	(feet)	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA
MW5	03/16/11	65.59	1	22.02	43.57	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	< 0.50	
MW5	06/21/11	65.59	1	22.41	43.18	0.00									
MW5	09/14/11	65.59	1	24.39	41.20	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	< 0.50	
MW5	12/01/11	65.59	1	25.22	40.37	0.00									
MW5	03/08/12	65.59	1	24.90	40.69	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	< 0.50	
MW5	06/04/12	65.59	1	22.30	43.29	0.00									
MW5	09/06/12	65.59	1	23.86	41.73	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	< 0.50	
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								150	
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								240	
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 MW6	12/12/03	59.60	b L	17.89	41.71	0.00	<2.5	<2.5	<2.5	<5.0	<250	51	<500	190	
MW6	03/15/04 06/24/04	59.60 59.60	b b	16.46 17.97	43.14	0.00	<1.0	<1.0 <1.0	<1.0 <1.0	<2.0	200 130	<50 <50	<500 <500	220 190	
MW6	09/29/04		b		41.63 41.05	0.00	<1.0 <0.50	0.61	<0.50	<2.0 1.2	210	<50	<500	190	
MW6	12/13/04	59.60 59.60	b	18.55 17.88	41.03	0.00	<0.30	0.61	<0.30	1.2		<30			
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	42.78	0.00	<0.50	<0.50 	<0.50	1.0		<30 			
MW6	09/26/05	59.60	b	NM	42.00 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	1	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	1	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	1	18.20	41.40	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	73	< 5.0
MW6	12/04/09	59.60	1	19.07	40.53	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	50	< 5.0
MW6	03/10/10	59.60	1	17.80	41.80	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	51	
MW6	05/28/10	59.60	1	18.02	41.58	0.00									
MW6	08/26/10	59.60	1	18.70	40.90	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 0.50	<100	47	
MW6	12/22/10	59.60	1	17.84	41.76	0.00									
MW6	03/16/11	59.60	1	16.94	42.66	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	44	
MW6	06/21/11	59.60	1	17.05	42.55	0.00									
MW6	09/14/11	59.60	1	17.97	41.63	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	50	
MW6	12/01/11	59.60	1	18.46	41.14	0.00									

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

-		Casing		Depth to	GW	SPH				Concer	ntration (µg	;/L)			
Well		Elevation		Water	Elevation	Thickness			Ethyl-	Total					
Number	Date	(feet)		(feet)	(feet)	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA
MW6	03/08/12	59.60	1	18.49	41.11	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	41	
MW6	06/04/12	59.60	1	17.05	42.55	0.00									
MW6	09/06/12	59.60	1	18.50	41.10	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	51	
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									
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	1	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	1	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	1	17.10	42.39	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	<100	< 0.50	< 5.0
MW7	12/04/09	59.49	1	17.10	42.39	0.00									
MW7	03/10/10	59.49	1	15.17	44.32	0.00									
MW7	05/28/10	59.49	1	15.20	44.29	0.00									
MW7	08/26/10	59.49	1	17.10	42.39	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	<100	< 0.50	
MW7	12/22/10	59.49	1	14.94	44.55	0.00									
MW7	03/16/11	59.49	1	14.75	44.74	0.00									
MW7	06/21/11	59.49	1	15.74	43.75	0.00									
MW7	09/14/11	59.49	1	16.68	42.81	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	< 0.50	
MW7	12/01/11	59.49	1	16.65	42.84	0.00									
MW7	03/08/12	59.49	1	16.07	43.42	0.00									
MW7	06/04/12	59.49	1	16.19	43.30	0.00									
MW7	09/06/12	59.49	1	16.97	42.52	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	< 0.50	

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

		Casing	Depth to	GW	SPH				Conce	ntration (µg	g/L)			
Well		Elevation	Water	Elevation	Thickness			Ethyl-	Total					
Number	Date	(feet)	(feet)	(feet)	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA
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	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	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	15.58	41.49	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	2.4	< 5.0
MW8	12/04/09	57.07	16.27	40.80	0.00									
MW8	03/10/10	57.07	14.47	42.60	0.00									
MW8	05/28/10	57.07	16.12	40.95	0.00									
MW8	08/26/10	57.07 1	16.36	40.71	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	<100	1.1	
MW8	12/22/10	57.07	16.25	40.82	0.00									
MW8	03/16/11	57.07	15.66	41.41	0.00									
MW8	06/21/11	57.07	15.72	41.35	0.00									
MW8	09/14/11	57.07	15.88	41.19	0.00	< 0.50	< 0.50	< 0.50	< 0.50	< 50	< 50	< 100	1.4	
MW8	12/01/11	57.07 1	16.01	41.06	0.00									
MW8	03/08/12	57.07 1	16.07	41.00	0.00									
MW8	06/04/12	57.07 1	12.45	44.62	0.00									
MW8	09/06/12	57.07 1	14.66	42.41	0.00									
MW9A	09/10/09	65.90	22.51	43.39	0.00	7,800	33,000	4,500	25,000	160,000	< 20,000	410	1,800	780
MW9A	12/04/09	65.90	24.42	41.48	0.00									
MW9A (m)	12/28/09	65.90	24.62	41.28	sheen	12,000	34,000	4,300	24,000	180,000	<200,000	3,400	2,100	680
MW9A	03/10/10	65.90	22.30	43.60	0.00	15,000	42,000	4,800	26,000	210,000	< 40,000	250	2,300	
MW9A	05/28/10	65.90	22.62	43.29 (n)	0.02	Not Samp	pled due to	Free Produc	et					
MW9A	08/26/10	65.90	23.21	42.70	0.00	2,600	19,000	3,000	22,000	150,000	<500,000	11,000	75	
MW9A	09/21/10	65.90	NM	NC	0.00	1,400	9,600	1,600	12,000	70,000				
MW9A	12/22/10	65.90	22.63	43.28	0.00	4,400	17,000	1,900	13,000	83,000	<1500	<100	250	
MW9A	03/16/11	65.90	20.31	45.60	0.00	4,900	22,000	2,800	20,000	130,000	< 1500	230	620	
MW9A	06/21/11	65.90	20.36	45.55	0.00	16	33	39	230	2800	< 300	< 100	28	
MW9A	09/14/11	65.90	22.24	43.67	0.00	3700	17000	2800	21000	120000	< 25000	1400	720	
MW9A	12/01/11	65.90	23.02	42.89	0.00	3,700	14,000	2,000	15,000	98,000	< 2000	410	670	
MW9A	03/08/12	65.90	22.90	43.01	0.00	4600	16000	2100	17000	97000	< 300	< 100	810	
MW9A	06/04/12	65.90	21.51	44.40	0.00	3,800	12,000	1,300	13,000	93,000	< 300	< 100	860	
MW9A	09/06/12	65.90	23.60	42.31	0.00	2,800	13,000	1,800	13,000	110,000	< 800	430	420	
MW9B	09/10/09	65.85	22.30	43.55	0.00	640	4,500	1,100	6,500	36,000	< 3,000	< 100	61	< 50
MW9B	12/04/09	65.85	24.00	41.85	0.00	63	250	180	620	5,600	< 300	< 100	3.1	< 5.0
MW9B	03/10/10	65.85	22.41	43.44	0.00	98	310	340	900	7,500	< 600	< 100	5.7	
MW9B	05/28/10	65.85	22.50	43.35	0.00	31	75	150	270	2,900	< 400	< 100	2.9	
MW9B	08/26/10	65.85	23.31	42.54	0.00	13	160	310	2,000	14,000	<1000	<100	88	
MW9B	09/20/10	65.85	NM	NC	0.00	7	110	140	830	6,200				
MW9B	12/22/10	65.85	23.20	42.65	0.00	< 0.5	3	1	10	140	< 50	<100	4.5	
MW9B	03/16/11	65.85	20.14	45.71	0.00	22	39	47	290	3,500	< 300	< 100	38	
MW9B	06/21/11	65.85	20.30	45.55	0.00	9.2	29	38	260	2200	< 300	< 100	41	
MW9B	09/14/11	65.85	21.44	44.41	0.00	17	22	47	220	2200	< 400	< 100	66	
MW9B	12/01/11	65.85	23.17	42.68	0.00	9	68	32	190	1,000	< 50	<100	79	
MW9B	03/08/12	65.85	23.59	42.26	0.00	3.8	6.4	13	59	560	< 50	< 100	48	
MW9B	06/04/12	65.85	21.50	44.35	0.00	34	56	38	160	1,400	< 50	< 100	40	
MW9B	09/06/12	65.85	23.65	42.20	0.00	1.5	1.4	2.4	15	230	< 50	< 100	11	
O1	09/10/09	65.91	22.44	43.47	0.00	960	2,400	1,000	4,600	23,000	< 1,500	< 100	180	84

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

		Casing	Depth to	GW	SPH	Concentration (µg/L)								
Well		Elevation	Water	Elevation	Thickness			Ethyl-	Total					
Number	Date	(feet)	(feet)	(feet)	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	TBA
O1	12/04/09	65.91	24.33	41.58	0.00	1,000	3,700	1,700	7,400	38,000	< 1000	< 100	310	200
O1	03/10/10	65.91	22.20	43.71	0.00	660	2,600	970	5,300	29,000	< 1000	< 100	200	
O1	05/28/10	65.91	22.49	43.42	0.00	610	2,000	1,000	4,200	21,000	< 1500	< 100	270	
O1	08/26/10	65.91	23.25	42.66	0.00	29	160	59	680	5,000	< 500	<100	97	
O1	09/20/10	65.91	NM	NC	0.00	24	140	28	330	2,000				
O1	12/22/10	65.91	22.70	43.21	0.00	10	35	3	30	460	< 50	<100	220	
O1	03/16/11	65.91	20.19	45.72	0.00	200	440	240	850	6,900	< 300	< 100	180	
O1	06/21/11	65.91	20.31	45.60	0.00	320	530	400	1500	8900	< 400	< 100	260	
O1	09/14/11	65.91	22.16	43.75	0.00	320	540	510	1500	9000	< 1000	< 100	170	

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

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 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.

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.

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 mtor oil.

Resurveyed Prior to 1st Quarter 2009 Measurements

m The well was not purged due to insufficient water.

Groundwater elevation corrected by substituting the "product thickness" in the water column of the well with thickness of the groundwater equivalent,

determined by multiplying the specific gravity of gasoline (0.739) by the "product thickness".

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

						Concentra	tions (µg/L)			
Boring		Depth			Ethyl-	Total				
ID	Date	(feet)	Benzene	Toluene	benzene	Xylenes	MTBE	TPH-g	TPH-d	TPH-mo
HP1	12/18/2003	26-30	< 5.0	< 5.0	< 5.0	11	480	410	180	< 500
HP3	12/18/2003	32-36	< 0.50	< 0.50	< 0.50	<1.0	0.55	< 50	75	< 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	660	11000	4200	20000	34	110000	<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	160	< 50	3800	6600

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.
Bold values reflect maximum detected concentrations <

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

XV.11	Groundwater	Groundwater Sampling and Analysis Frequency						
Well Number	Gauging Frequency	BTEX and TPH-g	МТВЕ	ТЕРН				
MW1	Q	S	S	S				
MW2	Q	Q	Q	Q				
MW3	Q	Q	Q	Q				
MW4	Q	Q	Q	Q				
MW5	Q	S	S	S				
MW6	Q	S	S	S				
MW7	Q	A	A	A				
MW8	Q	A	A	A				
MW9A	Q	Q	Q	Q				
MW9B	Q	Q	Q	Q				
O1	Q	Q	Q	Q				

Q = Quarterly.

S = Semiannual (1st and 3rd Quarters).

A = Annual.

 $BTEX = Benzene, \ toluene, \ ethylbenzene, \ total \ xylenes.$

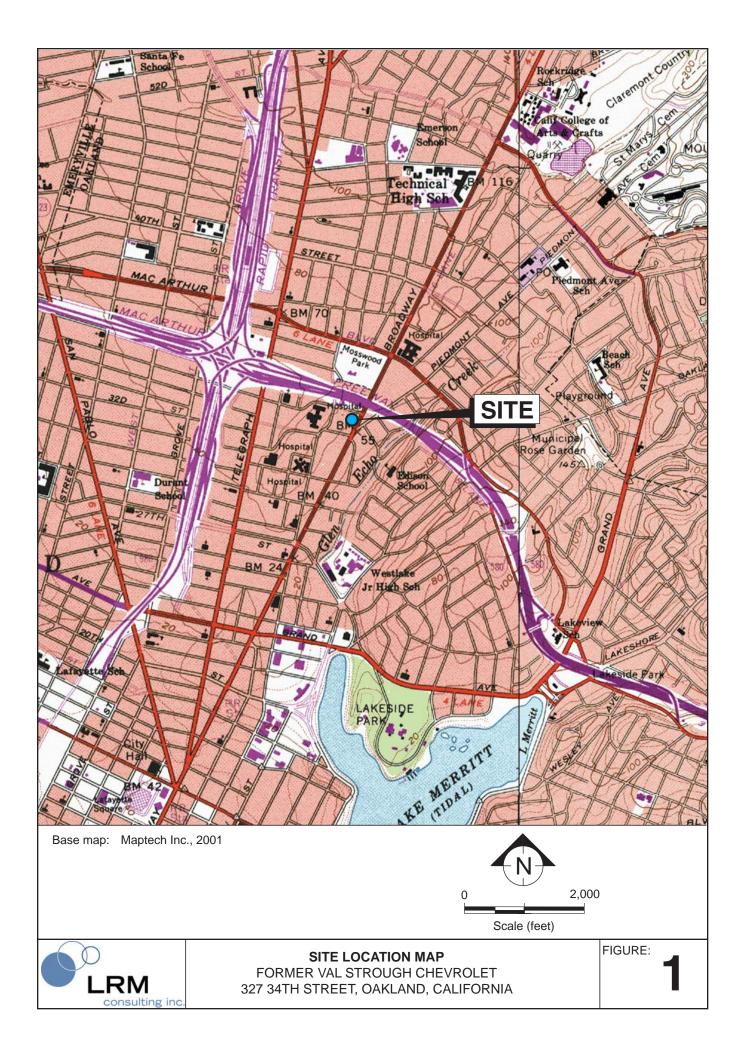
MTBE = Methyl tertiary butyl ether.

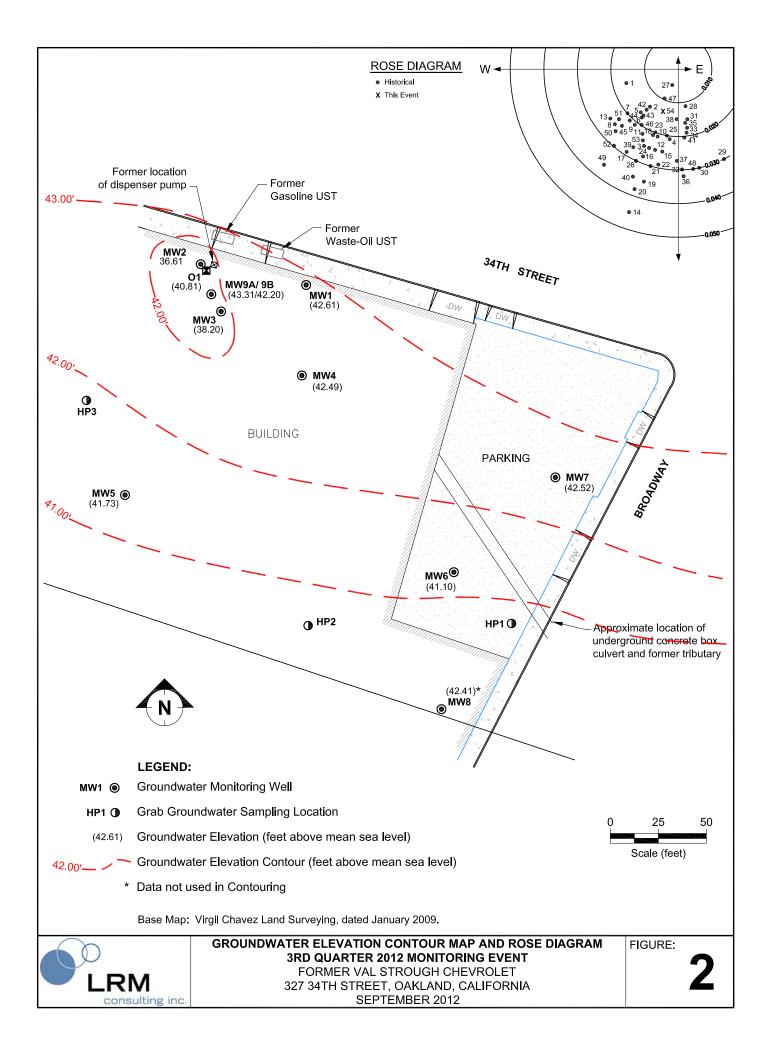
TPH-g = Total Petroleum Hydrocarbons as gasoline.

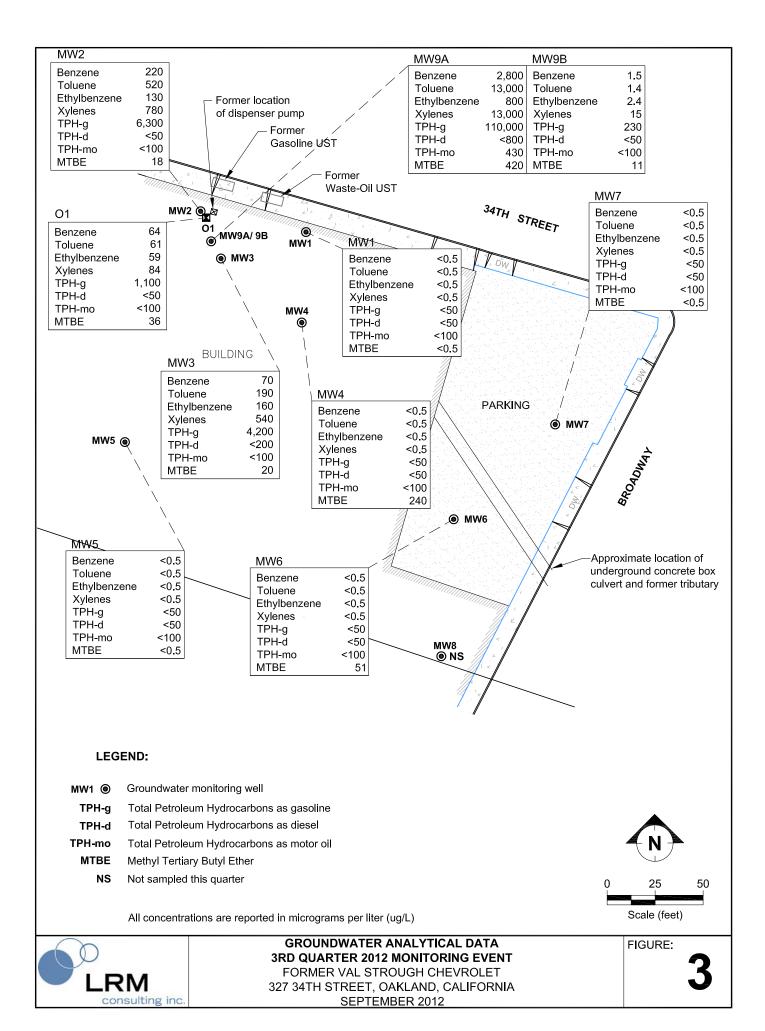
TEPH = Total Extractable Petroleum Hydrocarbons, includes TPH-diesel and TPH-motor oil.



FIGURES









Appendix A

Field Documents

Water Level Measurements

Job Number:	TMSTR	ROUGH	Date:	9/8	2012	Client:	VA	L STROUGH
Site:	FORMER	R VAL ST	ROUGH (CHEVROL	ET, 327	34TH STRI	EET, OAK	(LAND
Well ID.	Time	Diam	Depth to	Product Thickness	Depth To Water (DTW)	Total Depth (Measured)	Total Depth (Historical)	Notes
MW1	1154	2	rioduot	7 11101111000	22.10	(modelio o y	31.20	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
MW2	1208	2			29.1		32.00	
MW3	1212	2			27.5		32.00	
MW4	1152	2			21.88		27.90	
MW5	1150	2	,		23.86		26.55	
MW6	1141	2			18.5		27.00	
MW7	1132	2		,	16.97		34.80	
MW8	1146	2			14.66		26.70	
MW9A	1204	2			23.6		24.90	
MW9B	1205	2		e 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	23.65		38.85	
01	1202	2		-	25.1	-	39.82	
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		jal	:3			h		
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				:				<u> </u>

Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9/6/2012 Sample Time: 13/4 DTW at Sample: Sample ID: MW7 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH	Purging And Sampling Data Sheet										
Well Diameter: 2 DTW:	Job Number:	TMST	ROUGH	Sampler:	S. PC	LSTON	Client:	VA	L STROUGH		
Purge Equipment	Well ID:	MW7		Date:	9/6	/2012	Site:	FORMER	R CHEVY OAKLAND		
Purge Method	Well Diamete	r:	2	DTW:	16.9	7	Total De	pth	34.8		
Multipliers	Purge Equipn	nent	PURGE	PUMP		Tubing (C	DD) 1/2"	Nev	w Dedicated		
Total Depth - DTW X Mulitiplier = 1 casing vol. 1 volume = 17.85 x .16 = 2.85 Gallons 80% Recovery = Total Depth - DTW X .20 + DTW 1 volume = 17.85 x .16 = 2.85 Gallons 80% = 20.54 Time	Purge Method	t	3-5 Ca	sing Vol W	licro/low Flo	w Extraction	on Well C	Other:			
1 volume = 17.8	Multipliers		1"= 0.04, 2	2"=0.16, 3"	=0.37, 4"=	0.65, 5"=1.0	02, 6"=1.47	7 Gallons p	er liner foot		
Time ph Temp Cond Turb DO ORP Gallons Notes 1258	Total Depth - [OTW X Mu	litplier = 1	casing vol		80% Reco	very = Tot	al Depth -D	TW X .20 + DTW		
1258 7,45 19.5 125. 75000 6,3 1 1,5 1302 7,31 19.6 95.4 95.9 8.6 42 3.0 1307 6,94 19.6 92.8 366 5,63 60 6.0 1314 6,94 19.2 94.9 251 5,77 84 9.5 1314 6,94 19.2 94.9 19.2 19.2 19.2 1314 6,94 19.2 19.2 19.2 19.2 19.2 1314 6,94 19.2 19.2 19.2 19.2 19.2 1314 6,94 19.2 19.2 19.2 19.2 19.2 1314 6,94 19.2 19.2 19.2 19.2 19.2 1314 6,94 19.2 19.2 19.2 19.2 19.2 1314 6,94 19.2 19.2 19.2 19.2 19.2 1314 6,94 19.2 19.2 19.2 19.2 19.2 1314 6,94 19.2 19.2 19.2 19.2 19.2 1314 6,94 19.2 19.2 19.2 19.2 19.2 1314 6,94 19.2 1	1 volume = _	17.83)	(<u>.16</u> =	2185	Gallons	, 4	80% =	20.54	•		
1302 7.31 19.6 95.4 95.9 8.6 42 3.0 1307 6.94 19.6 92.8 366 5.63 60 6.	Time	ph	Temp	Cond	Turb	DO	ORP	Gallons	Notes		
1307 6.94 19.6 92.8 366 5.63 60 6.6 1311 6.95 19.4 92.8 217 5.71 76 9.6 1314 6.94 19.2 94.9 251 5.77 84 9.5 1314 6.94 19.2 94.9 251 5.77 84 9.5 1314 6.94 19.2 94.9 251 5.77 84 9.5 1314 6.94 19.2 94.9 251 5.77 84 9.5 1314 6.94 19.2 94.9 251 5.77 84 9.5 1314 6.94 19.2 94.9 251 5.77 84 9.5 1314 6.94 19.2 94.9 251 5.77 84 9.5 1314 6.94 19.2 9.5 9.5 1314 6.94 19.2 9.5 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 19.2 9.5 1314 6.94 9.5 1314 9.5 1314 9.5 9.5 1314 9.5 9.5 1314 9.5 1314 9.5 9.5 1314 9.5 9.5 1314 9.5 1314 9.5 9.5 1314 9.5 9.5 1314 9.5 1314 9.5 1314 9.5 1314 9.5 1314 9.5 1315 9.5 1315 9.5 1315 9.5 1315 9.5 1315 9.5	1258	7,45	1905	a 125.	75000	6.3	11	15	-		
	1302	7.31	19.6	9514	95.9	8,6	42	3,0	5		
Well Dewater Yes No Total Volume Removed: 9.5 Gallor Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9/6/2012 Sample Time: \3 \4 \4 \9 \5 \8 \8 \8 \8 \8 \8 \8 \8 \8 \8 \8 \8 \8	1307	6,94	19.6	92.8	366	5.63	60	6.0			
Well Dewater Yes No Total Volume Removed: 9.5 Gallor Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9/6/2012 Sample Time: \(\frac{1}{2} \) \(\psi \) DTW at Sample: Sample ID: MW7 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH	1311	6.95	19,4	92.8	217	5.71	76	900			
Well Dewater Yes No Total Volume Removed: 9.5 Gallor Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9/6/2012 Sample Time: \(\frac{1}{2} \) \(\psi \) DTW at Sample: Sample ID: MW7 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH				-			, 10 m m				
Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9/6/2012 Sample Time: 1314 DTW at Sample: Sample ID: MW7 Lab: KIFF Number of Containers: 5	1314	6.94	19.2	94.9	251	5.77	84	915			
Sample Method: Disp Bailer New Tubing Sample port Other:	, ,					e	,				
Sample Method: Disp Bailer New Tubing Sample port Other:			5								
Sample Method: Disp Bailer New Tubing Sample port Other:	,										
Sample Method: Disp Bailer New Tubing Sample port Other:			z.		**************************************			. Y	The state of the s		
Sample Method: Disp Bailer New Tubing Sample port Other:	2 4					je je					
Sample Method: Disp Bailer New Tubing Sample port Other:						V					
Sample Date: 9/6/2012 Sample Time: 1314 DTW at Sample: Sample ID: MW7 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH	Well Dewater Yes No Total Volume Removed: 905 Gallons										
Sample ID: MW7 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH	Sample Metho	od:	Disp Bail	er New	Tubing	Sample po	ort Other	r:	a.		
Analysis: TPH- Gas, BTEX, MTBE, TEPH	Sample Date: 9/6/2012 Sample Time: \3/4 DTW at Sample:										
	· · · · · · · · · · · · · · · · · · ·						Number	of Containe	ers: 5		
Notes:	Analysis:	TPH- Gas	, BTEX, M	TBE, TEP	H	PROPERTY OF THE PROPERTY OF TH			į.		
	Notes:		.	1 <u></u>							

		Purg	jing An	d Sam	pling Da	ata She	et				
Job Number:	TMSTI	ROUGH	Sampler:	S. PC	DLSTON	Client:	VA	L STROUGH			
Well ID:	MW6		Date:	9/6	3/2012	Site:	FORMER	R CHEVY OAKLAND			
Well Diamete	r:	2	DTW:	18,	5	Total De	oth 27	27 26:55			
Purge Equipn	nent	PURGE	PUMP		Tubing (O	D) 1/2"	Nev				
Purge Method	d .	3-5 Ca	sing Vol M	licro/low Flo	w Extraction	on Well O	ther:				
Multipliers		1"= 0.04, 2	2"=0.16, 3"=	=0.37, 4"=	0.65, 5"=1.0)2, 6"=1.47	Gallons p	er liner foot			
Total Depth - [OTW X Mu	litplier = 1	casing vol.		80% Reco	very = Tota	al Depth -D	TW X .20 + DTW			
1 volume = _	1 volume = $\frac{6.5}{1.5} \times \frac{1.16}{1.16} = \frac{1.36}{1.36} = 1$										
Time	ph	Temp	Cond	Turb	DO	ORP	Gallons	Notes			
1334	1.49	19,4	99,8	763	5,06	-161	\$,5				
1337	6.37	18.8	99	796	4.67	-165	115				
1339	6.42	18.9	90	475	4.85	-162	310	9			
1341	6:45	18.8	90,9	299	5.02	-164	4.5				
					and i						
1345	6:46	18.7	91,2	>5000	4.81	-170	510				
				7		(3)					
			- M					*			
		***************************************			. 40						
1.00047						3	ê				
Well Dewater	10 TO THE RESIDENCE OF THE SECOND	Yes / No		Total Vol	ume Remov	ved:	5.0	Gallons			
Sample Metho	od: (Disp Bail	er) New	Tubing	Sample po	rt Other	-	<u> </u>			
Sample Date:	9/6/2	2012	Sample T	ime:	545	DTW at Sa	ample:	WANTE CONTRACTOR OF THE CONTRA			
Sample ID:	MV			KIFF		Number o	of Containe	ers: 5			
Analysis:	IPH- Gas	, BTEX, M	TBE, TEP	H			**				
Notes:						2000					
						5					
		,	- Variable	·		** **					

Purging And Sampling Data Sneet										
Job Number:	TMSTI	ROUGH	Sampler	S. PC	DLSTON	Client:	VA	L STROUGH		
Well ID:	MW5		Date:	9/6	3/2012	Site:	FORMER	CHEVY OAKLAND		
Well Diameter	r:	2	DTW:	13	186	Total De	oth 26:55	26.55 26.40		
Purge Equipn	nent	PURGE	PHMP 4	mo BAR	Tubing (O	D) 112"	Nev	v Dedicated		
Purge Method	1	3- 5 Ca	sing Vol M	licro/low Flo	w Extractio	n Well O	ther:			
Multipliers		1"= 0.04, 2	"=0.16, 3"	=0.37, 4"=	0.65, 5"=1.0	2, 6"=1.47	Gallons p	er liner foot		
Total Depth - D	OTW X Mu	litplier = 1	casing vol	**************************************	80% Recov	very = Tota	al Depth -D	TW X .20 + DTW		
1 volume = _	2.69 x	<u> </u>	,43	Gallons		80% =	24.40	-		
Time	ph	Temp	Cond	Turb	DO	ORP	Gallons	Notes		
1413	6:62	19.0	7011	129	6.4	-63	135			
1420	607	18,5	72.1	197	0.5	59	e 5			
1422	6.05	18.5	72,2	138	6.45	57	1.0	=		
1425	5.83	18,9	79.2	213		75	1,5	-		
				p)	- *					
4.				,		1				
	10	G _{C 1} ⁰								
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		×	19			124				
	, , , ,							and the second s		
u u							8			
Well Dewater		Yes (No.		Total Val	ume Remov	d	1.5	Callana		
Sample Metho	od:	Disp Bail	er New	Tubing	Sample po			Gallons		
Sample Date: 9/6/2012 Sample Time: / 427 DTW at Sample:										
Sample ID:	M	N5	Lab:	KIFF	•	Number o	of Containe	ers: 5		
Analysis:	TPH- Gas	, BTEX, N	TBE, TEP	H			Programme Control			
	<u>- </u>	<u> </u>			1000					
Notes:				S NOTE OF THE PERSON OF THE PE						
					5					
						- 				

Duraina And Camplina Data Shoot

		Purg	ing An	a Sam	piing Da	ila Sile	ei	0	
Job Number:	TMSTI	ROUGH	Sampler:	S. PC	DLSTON	Client:	VA	L STROUGH	
Well ID:	MW4		Date:	9/6	3/2012	Site:	FORMER	CHEVY OAKLAND	
Well Diamete	r:	2	DTW:	21.8	38	Total Depth 27.9			
Purge Equipm	nent	PURGE I	PUMP		Tubing (O	D) 1/2"	Nev	Dedicated	
Purge Method	d	3- 5 Ca	sing Vol	licro/low Flo	w Extractio	n Well O	ther:		
Multipliers		1"= 0.04, 2	2"=0.16, 3"	=0.37, 4"=	0.65, 5"=1.0	2, 6"=1.47	Gallons p	er liner foot	
Total Depth - I	DTW X Mu	litplier = 1	casing vol		80% Recov	very = Tota	al Depth -D	TW X .20 + DTW	
1 volume = <u>(</u>	6.02	(<u>.16</u> =	.96	Gallons	: :	80% =	23108	<u>'</u>	
Time	ph	Temp	Cond	Turb	DO	ORP	Gallons	Notes	
1503	6.09	18.8	92.5	5000	5.45	92	,5		
1505	6.19	18.9	7/4	892	5,95	94	1		
1507	6.28	19.0	90	671	6.07	98	Z		
1509	6.35	4.0	91	475	6.43	104	3		
1173	6.3	19.0	92	461	6:29	100	315		
7813		17.0	12	701		100	713		
- minula - t				6				L.,	
	8								
garder (t	,					A V			
× 2			2						
Well Dewater		Yes No		Total Vol	ume Remov	/ed:	35	Gallons	
Sample Metho	od:	Disp Bail	er New	Tubing	Sample po	rt Other	:	•	
Sample Date: 9/6/2012 Sample Time: /5/3 DTW at Sample:									
Sample ID:	M	N 4	Lab:	KIFF		Number o	of Containe	ers: 5	
Analysis: Notes:	TPH- Gas	, BTEX, M	ITBE, TEP	H		j.			

- arging rana camping 2 atta check									
Job Number:	TMST	ROUGH	Sampler:	, ,	DLSTON	Client:	VA	L STROUGH	
Well ID:	MW1		Date: 9/			Site:	FORME	R CHEVY OAKLAND	
Well Diamete	er:	2	DTW:	221	10	Total De	oth	31.2	
Purge Equipr	ment	PURGE F	PUMP	*	Tubing (C	D) 1/2"	Ne	Dedicated	
Purge Metho	d	<3-5 Ca	sing Vol	licro/low Flo	w Extraction	on Well O	ther:		
Multipliers	•	1"= 0.04, 2	"=0.16, 3" -	=0.37, 4"=	0.65, 5"=1.0	02, 6"=1.47	Gallons p	er liner foot	
Total Depth -						very = Tota	l Depth -D	TW X .20 + DTW	
1 volume = _	911 x	<u>.16</u> =	1146	Gallons		80% =	23,9	2	
Time	ph	Temp	Cond	Turb	DO	ORP	Gallons	Notes	
0848	829	18.4	,148	390	4.3	175	15		
850	2:09	18.5	,138	59.7	7.7	179	1,5		
0853	7,20	(8.7	013	14,2	7.83	175	3.0		
0855	6.95	18,7	,136	1716	652	174	415	***************************************	
		100	(2)		λ				
0900	672	18,6	1137	261	6.25	182	5,0	g v l	
					: e		v		
			r						
		5							
				2		1			
Well Dewater		Yes (No)	Total Vol	ume Remo	ved: 5	5,0	Gallons	
Sample Metho		Øisp Baile	er New	Tubing	Sample po	***************************************			
Sample Date:	9/7/2012	2012	Sample Ti	ime: 🔘	900	DTW at Sa	ample:		
Sample ID:	MV	V1	Lab:	KIFF		Number o	f Containe	ers: 5	
Analysis:	TPH- Gas	, BTEX, M	TBE, TEPI	Н					
Notes:									

Duraina And Camplina Data Chast

Well ID:	-		Purg	ing An	u sam	piing Da	ita Sne	et	·	
Well Diameter: 2 DTW: 25 Total Depth 39.82 Purge Equipment PURGE PUMP Tubing (OD) 1/2" New Dedicated Purge Method 3-5 Casing Vol Micro/low Flow Extraction Well Other: Multipliers 1"= 0.04, 2"= 0.16, 3"= 0.37, 4"= 0.65, 5"= 1.02, 6"= 1.47 Gallons per liner foot Total Depth - DTW X Multiplier = 1 casing vol. 80% Recovery = Total Depth - DTW X .20 + DTW 1 volume = 1911 x 16 = 2	Job Number:	TMST	ROUGH	Sampler	S. PC	DLSTON	Client:	ent: VAL STROUGH		
Purge Equipment PURGE PUMP Tubing (OD) 1/2" New Dedicated	Well ID:	01		Date: 9	7/12-9/6	3/2012	Site:	FORMER	R CHEVY OAKLAND	
Purpe Method 3-5 Casing Vol Micro/low Flow Extraction Well Other:	Well Diamete	r:	2	DTW:	25,		Total Depth 39.82			
Multipliers	Purge Equipn	nent	PURGE F	PUMP		Tubing (O	D) 1/2"	(Nev	w Dedicated	
Total Depth - DTW X Mulitplier = 1 casing vol. 1 volume = 1972 x .16 = 2.4 Gallons 80% = 28.04 Time	Purge Method	d .	3- 5 Ca	sing Vol N	licro/low Flo	ow Extractio	n Well O	ther:		
1 volume = 14.71 x .16 = 2.4 Gallons 80% = 28.04 Time ph Temp Cond Turb DO ORP Gallons Notes 07.39 6.10 18.2 .234 75000 9.07 1.69 6.45 09.43 6.96 8.5 .169 902 8.50 141 2.7 09.46 7.02 18.6 .161 304 8.83 170 5.0 09.52 7.20 18.7 .175 109 8.71 159 7.5 09.57 6.94 18.2 1.2 700 8.73 176 8.0 Well Dewater Yes No Total Volume Removed: 8.0 Gallons Sample Method; Disp Bailer New Tubing Sample port Other: Sample Date: 9.11.9162072 Sample Time: 0.957 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH-Gas, BTEX, MTBE, TEPH	Multipliers	<u> </u>	1"= 0.04, 2	"=0.16, 3"	=0.37, 4"=	0.65, 5"=1.0	2, 6"=1.47	Gallons p	er liner foot	
Time ph Temp Cond Turb DO ORP Gallons Notes 0939 610 18.2 234 75000 9.07 169 6.5 0948 6.96 8.5 169 902 8.50 141 2.T 0946 7.02 18.6 .161 304 8.83 10 5.0 0952 7.20 18.7 .175 109 8.71 159 7.5 0957 6.94 18.2 1.2 700 8.73 176 8.0 Well Dewater Yes No Total Volume Removed: 8:0 Gallons Sample Method; Disp Bailer New Tubing Sample port Other: Sample Date: 9111 9192012 Sample Time: 0957 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH-Gas, BTEX, MTBE, TEPH	Total Depth - [OTW X Mu	litplier = 1	casing vol	·	80% Recov	very = Tota	al Depth -D	TW X .20 + DTW	
0939 610 18.2 .234 75000 9.07 169 \$.5 0948 6.96 8.5 .169 902 8.50 141 2.T 0946 7.02 18.6 .161 304 8.83 170 5.0 0957 7.20 18.7 .175 109 8.71 159 7.5 0957 6.94 18.2 1.2 700 8.73 176 8.0 Well Dewater Yes No Total Volume Removed: 8:0 Gallons Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 911/19162012 Sample Time: 0957 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH-Gas, BTEX, MTBE, TEPH	1 volume = _	1472	(<u>.16</u> =	2.4	Gallons		80% =	28.04	•	
Mell Dewater Yes No Total Volume Removed: S O Gallons	Time	ph	Temp	Cond	Turb	DO	ORP	Gallons	Notes	
Nell Dewater Yes No Total Volume Removed: St. O Gallons	0939	610	18.2	,234	75000	9,07	169	8.5		
Nell Dewater Yes No Total Volume Removed: St. O Gallons	0943	6.96	185	e 169	902	8,50	141	2.T		
Nell Dewater Yes No Total Volume Removed: 8 0 Gallons	0946	7.02	18.6		304	8.83	150	500		
Well Dewater Yes No Total Volume Removed: Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9 1/1 9/6/2012 Sample Time: 0 9 5 7 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH	0952	1	18.7	1175	109	8:71	159	715		
Well Dewater Yes No Total Volume Removed: Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9 1/1 9/6/2012 Sample Time: 0 9 5 7 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH					11					
Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9 1/1 9/6/2012 Sample Time: 0 9 5 7 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH	0957	6.94	18.2	1.2	700	8,73	176	8.0		
Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9 1/1 9/6/2012 Sample Time: 0 9 5 7 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH										
Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9 1/1 9/6/2012 Sample Time: 0 9 5 7 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH									,	
Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9 1/1 9/6/2012 Sample Time: 0 9 5 7 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH						N B			а,	
Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9 1/1 9/6/2012 Sample Time: 0 9 5 7 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH		e e		5						
Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9 1/1 9/6/2012 Sample Time: 0 9 5 7 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH			0				* **			
Sample Method: Disp Bailer New Tubing Sample port Other: Sample Date: 9 1/1 9/6/2012 Sample Time: 0 9 5 7 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH										
Sample Date: 9/1/19/6/2012 Sample Time: 0957 DTW at Sample: Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH	Well Dewater				7	ume Remov	ved:	81	O Gallons	
Sample ID: O1 Lab: KIFF Number of Containers: 5 Analysis: TPH- Gas, BTEX, MTBE, TEPH		12/12							-	
Analysis: TPH- Gas, BTEX, MTBE, TEPH	Sample Date: 9/11 9/6/2012 Sample Time: 0 9 5 + DTW at Sample:									
	Sample ID:						Number	of Contain	ers: 5	
Notes:	Allalysis:	irn- Gas	, DIEA, IVI	IDE, IEP	П	No.				
	Notes:	٠			· ·					
		2				-				

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Purging And Sampling Data Sneet									
Job Number:	TMST	ROUGH	Sampler	S. PC	DLSTON	Client:	VA	L STROUGH	
Well ID:	MW9B		Date: 9/-	1/12-9/6	/2012	Site:	FORME	R CHEVY OAKLAND	
Well Diamete	r:	2	DTW:	23	. 45	Total Depth 38.85			
Purge Equipn	nent	PURGE I	PUMP		Tubing (O	D) 1/2"	Ne	Dedicated	
Purge Method	d (3-5 €a	sing Vol M	licro/low Flo	w Extraction	on Well O	ther:		
Multipliers		1"= 0.04, 2	2"=0.16, 3"	=0.37, 4"=	0.65, 5"=1.0	2, 6"=1.47	Gallons p	er liner foot	
Total Depth - I	DTW X Mu	litplier = 1	casing vol	× .	80% Reco	very = Tota	al Depth -D	TW X .20 + DTW	
1 volume = $15.2 \times 1.16 = 2.43$ Gallons 80% = 26.69									
Time	ph	Temp	Cond	Turb	DO	ORP	Gallons	Notes	
1024	7.33	182	,43	9.91	9.01	161	25	TurB 99/	
1028	8.02	1812	.90	476	8.94	139	2,5		
1032	7.56	18.4	1345	34	8.88	64	510		
1037	7.76	7.76 18.9 1.66 87.6 8.75					7.5		
	sa sa								
1042	8,05	18.9	,325	470	8,65	1(8	8,0		
					2	,			
							2 -		
						0.0000000000000000000000000000000000000			
******************************							*		
Well Dewater		Yes (No		Total Vol	ume Remov	ved:	9,0	Gallons	
Sample Metho	od:, €	Disp Bail	er New	Tubing	Sample po	rt Other			
Sample Date:	9/1/19/6/	2012	Sample T	ime: \	042	DTW at S	ample:		
Sample ID:	MV	V 9B	Lab:	KIFF		Number o	of Contain	ers: 5	
Analysis:	TPH- Gas	, BTEX, M	ITBE, TEP	Н					
Notes:	1 70 0								
	7		8						

Duraina And Compline Data Chart

Purging And Sampling Data Sneet									
Job Number:	TMST	ROUGH	Sampler	S. PC	DLSTON	Client:	Client: VAL STROUGH		
Well ID:	MW2	2 8	Date:9/7	1/12 9/6	/2012	Site:	FORMER	CHEVY OAKLAND	
Well Diamete	r:	2	DTW:	29.	1	Total De	pth	32.0	
Purge Equipn	nent	PURGET	PUMP Sy	stem	Tubing (O	D) 1627	Nev	v Dedicated	
Purge Method	t t	3- 5 Ca	sing Vol N	licro/low Flo	w Extraction	on Well O	ther:		
Multipliers		1"= 0.04,	2"=0.16, 3	"=0.37, 4"=	=0.65, 5"=1.	.02, 6"=1.4	7 Gallons _I	per liner foot	
Total Depth - [N X WTC	/lulitplier =	1 casing v	ol.	80% Reco	very = Tota	al Depth -D	TW X .20 + DTW	
1 volume =	2.9	X <u>.16</u> =	-46	_ Gallons	5	80% =	29.68	1	
Time	ph	Temp	Cond	Turb	DO	ORP	Gallons	Notes	
1102	7,99	181	1109	22.6	9.1	-17	NIB		
1104	7,85	181	, 103	80,7	9.03	-17			
1106	7.42	1814	109	169	8,94	-11			
*									
			2		-				
		2							
								·	

		<i>8</i> .							
Well Dewater		Yes No		Total Vol	ume Remo	ved:	NIA	Gallons	
Sample Metho	od: 10	Disp Bail	er New	Tubing	Sample po	rt Other			
Sample Date:	9/6	/2012	Sample T	ime:	108	DTW at S	ample:	29.85	
Sample ID:		W2	Lab:	KIFF		Number o	of Containe	ers: 5	
Analysis:	TPH- G	as, BTEX,	MTBE, TE	PH			***		
Notes:						My Allen and the second of the			
					A				

- urging / the camping Data choos										
Job Number:	TMST	ROUGH	Sampler	S. PC	LSTON	Client:	VA	L STROUGH		
Well ID:	MW3		Date: 9/-	7/12 976	/ 2012	Site:	FORMER	CHEVY OAKLAND		
Well Diamete	r: 🔩	2	DTW:	27.5	· ·	Total De	pth	32		
Purge Equipm	nent	PURGE F		isten	Tubing (O		Nev	v Dedicated		
Purge Method	t	3- 5 Ca	sing Vol M	licro/low Flo	w Extractio	n Well O	ther:			
Multipliers		1"= 0.04,	2"=0.16, 3	"=0.37, 4"=	=0.65, 5"=1.	02, 6"=1.4	7 Gallons	per liner foot		
Total Depth - I	N X WTC	/lulitplier =	1 casing v	ol.	80% Recov	very = Tota	al Depth -D	TW X .20 + DTW		
1 volume =	4.5	X <u>.16</u> =	.72	_ Gallons	5	80% =	28,4	_		
Time ph Temp Cond Turb DO ORP Gallons Notes										
1138	7145	1812	1.3	36	8,86	-94	NA	-		
1140	7.16	185	1091	4.8	6:16	-93				
1142	6.95	185	120	2/12	6.6	-96				
3 %										
			*		4					
					· ·					
	-	2								
	ļ		• 7		" " " " " " " " " " " " " " " " " " "					
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7	1			, é						
								* a		
Well Dewater	<u> </u>	Yes //No		Total Vol	ume Remo	ved:	Nla	Gallons		
Sample Metho		Disp Bail	er New	Tubing	Sample po	rt Other	:	<u>.</u>		
Sample Date:	9/11/9/16	72012	Sample 1	Time:	1144	DTW at S	ample:	2511		
Sample ID:	N	IW3	Lab:	KIFF	•	Number o	of Contain	ers: 5		
Analysis:	TPH- G	as, BTEX,	MTBE, TI	EPH	,					
Notes:					z.	п				
							 			

Job Number:	TMSTI	ROUGH	Sampler	S. P	OLSTON	Client:	VA	AL STROUGH
Well ID:	MW9A		Date: 9/	7/12-91	6/2012 >	Site:	FORME	R CHEVY OAKLAND
Well Diamete	r:	2	DTW:	12	5.6	Total De	pth	24.9
Purge Equipn	nent	PURGE F	PUMP		Tubing (OD) 1/2"	Ne	w Dedicated
Purge Method	t	3- 5 Ca	sing Vol N	licro/low F	ow Extract	ion Well O	ther:	
Multipliers	1	1"= 0.04, 2	"=0.16, 3"	=0.37, 4"=	0.65, 5"=1.	02, 6"=1.47	Gallons p	er liner foot
Total Depth - [OTW X Mu	litplier = 1	casing vol		80% Reco	overy = Tota	al Depth -D	TW X .20 + DTW
1 volume = _							23.86	
Time	ph	Temp	Cond	Turb	DO	ORP	Gallons	Notes
0835	4:25	1					.25	
	7.71	17.7	5,63	370	612	147		well Dry
				~				
	#		1 80g					
								,
								,
					4,			
V							a	
Well Dewater		Yes / No		Total Vo	lume Remo	oved:	.33	9 Gallons
Sample Metho		Disp Bail	er New	Tubing		ort Other	<u></u>	· • • • • • • • • • • • • • • • • • • •
Sample Date:	9/1/129/8/	2012	Sample 1	Time:	20.1	DTW at S	ample:	23,79
Sample ID:		V9A	Lab:	KIFF		Number	of Contain	ers: 5
Analysis:	TPH- Gas	s, BTEX, N	ITBE, TEP	PH	enaramento de como escoci			
Notes:				Ta.				
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						· · · · · · · · · · · · · · · · · · ·	3)	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1

lob Number	TRACTE	POLICIT	Complem	S DC	LSTON	Client:	\/A!	L STROUGH	
Job Number: Well ID:	MW8	ROUGH	Sampler:		/2012	Site:		CHEVY OAKLAND	
									
Well Diameter		2	DTW:	14.66		Total Dep	1	26.7	
Purge Equipm		PURGE F		icro/low Ele	Tubing (O		Nev	v Dedicated	
Purge Method								or liner feet	
Multipliers		1"= 0.04, 2	=0.16, 3 =	=0.37, 4 =	0.65, 5"=1.0	12, 6 = 1.47	Gallons pe	er liner 100t	
Total Depth - D					80% Recov	very = Tota	al Depth -D	TW X .20 + DTW	
1 volume = _	VIVE X	<u></u>	148	Gallons		80% =	7.07	<u>'</u>	
Time	ph	Temp	Cond	Turb	DO	ORP	Gallons	Notes	
,									
			2						
							7.		
								S.	
						ų.	,		
9			2.5		100			-	
						10			
					v				
	N.								
	141							:	
	16	-							
			,					à	
					Constanting out The				
Well Dewater		Yes / No	au Mass-		Sample no			Gallons	
Sample Methor Sample Date:	-1 100	Disp Bail	Sample T	Tubing	Sample po	I		-	
Sample ID:			Lab:	KIFF		DTW at S		ers: 5	
Analysis:									
Notes:	Best	Chrei	g v	Norbl	e 2	SA	mp le	,	
							_		



Appendix B

Laboratory Analytical Reports and Chain-of-Custody Documentation



Date: 09/17/2012

Laboratory Results

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

Subject: 10 Water Samples

Project Name: FORMER VAL STROUGH CHEVROLET

Project Number: TM STROUGH

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. Testing procedures comply with the 2003 NELAC and TNI 2009 standards. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Troy Turpen

Troy D. Turpen



Date: 09/17/2012

Subject: 10 Water Samples

Project Name: FORMER VAL STROUGH CHEVROLET

Project Number: TM STROUGH

Case Narrative

Samples MW-6, MW-5, and MW-9A, MW-9B were centrifuged and decanted prior to extraction by EPA Modified Method 8015. This is a modification to Kiff Analytical's standard procedure. Any hydrocarbons that were adsorbed to the original container surfaces were likely excluded.

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.



Date: 09/17/2012

Project Name: FORMER VAL STROUGH CHEVROLET

Project Number : **TM STROUGH**

Sample: MW7 Matrix: Water Lab Number: 82546-01

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 13:46
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 13:46
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 13:46
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 13:46
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 13:46
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/12 13:46
1,2-Dichloroethane-d4 (Surr)	98.6		% Recovery	EPA 8260B	09/12/12 13:46
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/12/12 13:46
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	09/14/12 10:44
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	09/14/12 10:44
Octacosane (Silica Gel Surr)	114		% Recovery	M EPA 8015	09/14/12 10:44



Date: 09/17/2012

Project Name: FORMER VAL STROUGH CHEVROLET

Project Number : TM STROUGH

Sample: MW6 Matrix: Water Lab Number: 82546-02

Parameter Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 14:21
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 14:21
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 14:21
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 14:21
Methyl-t-butyl ether (MTBE)	51	0.50	ug/L	EPA 8260B	09/12/12 14:21
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/12 14:21
1,2-Dichloroethane-d4 (Surr)	99.0		% Recovery	EPA 8260B	09/12/12 14:21
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/12/12 14:21
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	09/14/12 09:57
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	09/14/12 09:57
Octacosane (Silica Gel Surr)	98.9		% Recovery	M EPA 8015	09/14/12 09:57



Date: 09/17/2012

Project Name: FORMER VAL STROUGH CHEVROLET

Project Number : TM STROUGH

Sample: MW5 Matrix: Water Lab Number: 82546-03

Parameter Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 14:55
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 14:55
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 14:55
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 14:55
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 14:55
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/12 14:55
1,2-Dichloroethane-d4 (Surr)	99.3		% Recovery	EPA 8260B	09/12/12 14:55
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/12/12 14:55
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	09/14/12 08:47
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	09/14/12 08:47
Octacosane (Silica Gel Surr)	103		% Recovery	M EPA 8015	09/14/12 08:47



Date: 09/17/2012

Project Name: FORMER VAL STROUGH CHEVROLET

Project Number : TM STROUGH

Sample: MW4 Matrix: Water Lab Number: 82546-04

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 15:29
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 15:29
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 15:29
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 15:29
Methyl-t-butyl ether (MTBE)	240	0.50	ug/L	EPA 8260B	09/12/12 15:29
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/12 15:29
1,2-Dichloroethane-d4 (Surr)	99.4		% Recovery	EPA 8260B	09/12/12 15:29
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/12/12 15:29
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	09/14/12 11:14
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	09/14/12 11:14
Octacosane (Silica Gel Surr)	95.6		% Recovery	M EPA 8015	09/14/12 11:14



Date: 09/17/2012

Project Name: FORMER VAL STROUGH CHEVROLET

Project Number: TM STROUGH

Sample: MW1 Matrix: Water Lab Number: 82546-05

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 16:04
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 16:04
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 16:04
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 16:04
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/12 16:04
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/12 16:04
1,2-Dichloroethane-d4 (Surr)	99.2		% Recovery	EPA 8260B	09/12/12 16:04
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/12/12 16:04
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	09/17/12 10:57
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	09/17/12 10:57
Octacosane (Silica Gel Surr)	109		% Recovery	M EPA 8015	09/17/12 10:57



Date: 09/17/2012

Project Name: FORMER VAL STROUGH CHEVROLET

Project Number: TM STROUGH

Sample: **O1** Matrix: Water Lab Number: 82546-06

Parameter Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	64	2.0	ug/L	EPA 8260B	09/13/12 11:36
Toluene	61	2.0	ug/L	EPA 8260B	09/13/12 11:36
Ethylbenzene	59	2.0	ug/L	EPA 8260B	09/13/12 11:36
Total Xylenes	84	2.0	ug/L	EPA 8260B	09/13/12 11:36
Methyl-t-butyl ether (MTBE)	36	2.0	ug/L	EPA 8260B	09/13/12 11:36
TPH as Gasoline	1100	200	ug/L	EPA 8260B	09/13/12 11:36
1,2-Dichloroethane-d4 (Surr)	99.4		% Recovery	EPA 8260B	09/13/12 11:36
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/13/12 11:36
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	09/17/12 11:26
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	09/17/12 11:26
Octacosane (Silica Gel Surr)	94.2		% Recovery	M EPA 8015	09/17/12 11:26



Date: 09/17/2012

Project Name: FORMER VAL STROUGH CHEVROLET

Project Number: TM STROUGH

Sample: MW9B Matrix: Water Lab Number: 82546-07

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	1.5	0.50	ug/L	EPA 8260B	09/12/12 16:38
Toluene	1.4	0.50	ug/L	EPA 8260B	09/12/12 16:38
Ethylbenzene	2.4	0.50	ug/L	EPA 8260B	09/12/12 16:38
Total Xylenes	15	0.50	ug/L	EPA 8260B	09/12/12 16:38
Methyl-t-butyl ether (MTBE)	11	0.50	ug/L	EPA 8260B	09/12/12 16:38
TPH as Gasoline	230	50	ug/L	EPA 8260B	09/12/12 16:38
1,2-Dichloroethane-d4 (Surr)	98.6		% Recovery	EPA 8260B	09/12/12 16:38
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/12/12 16:38
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	09/17/12 10:32
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	09/17/12 10:32
Octacosane (Silica Gel Surr)	95.2		% Recovery	M EPA 8015	09/17/12 10:32



Date: 09/17/2012

Project Name: FORMER VAL STROUGH CHEVROLET

Project Number : TM STROUGH

Sample: MW2 Matrix: Water Lab Number: 82546-08

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	220	4.0	ug/L	EPA 8260B	09/13/12 14:29
Toluene	520	4.0	ug/L	EPA 8260B	09/13/12 14:29
Ethylbenzene	130	4.0	ug/L	EPA 8260B	09/13/12 14:29
Total Xylenes	780	4.0	ug/L	EPA 8260B	09/13/12 14:29
Methyl-t-butyl ether (MTBE)	18	4.0	ug/L	EPA 8260B	09/13/12 14:29
TPH as Gasoline	6300	400	ug/L	EPA 8260B	09/13/12 14:29
1,2-Dichloroethane-d4 (Surr)	99.2		% Recovery	EPA 8260B	09/13/12 14:29
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/13/12 14:29
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	09/17/12 11:07
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	09/17/12 11:07
Octacosane (Silica Gel Surr)	97.9		% Recovery	M EPA 8015	09/17/12 11:07



Date: 09/17/2012

Project Name: FORMER VAL STROUGH CHEVROLET

Project Number: TM STROUGH

Sample: MW3 Matrix: Water Lab Number: 82546-09

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	70	15	ug/L	EPA 8260B	09/13/12 12:10
Toluene	190	15	ug/L	EPA 8260B	09/13/12 12:10
Ethylbenzene	160	15	ug/L	EPA 8260B	09/13/12 12:10
Total Xylenes	540	15	ug/L	EPA 8260B	09/13/12 12:10
Methyl-t-butyl ether (MTBE)	20	15	ug/L	EPA 8260B	09/13/12 12:10
TPH as Gasoline	4200	1500	ug/L	EPA 8260B	09/13/12 12:10
1,2-Dichloroethane-d4 (Surr)	98.8		% Recovery	EPA 8260B	09/13/12 12:10
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	09/13/12 12:10
TPH as Diesel (w/ Silica Gel)	< 200	200	ug/L	M EPA 8015	09/17/12 11:42
(Note: MRL increased due to interference	from Gasoline-r	ange hydrod	carbons.)		
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	09/17/12 11:42
Octacosane (Silica Gel Surr)	103		% Recovery	M EPA 8015	09/17/12 11:42



Date: 09/17/2012

Project Name: FORMER VAL STROUGH CHEVROLET

Project Number: TM STROUGH

Sample: MW9A Matrix: Water Lab Number: 82546-10

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	2800	25	ug/L	EPA 8260B	09/13/12 15:03
Toluene	13000	25	ug/L	EPA 8260B	09/13/12 15:03
Ethylbenzene	1800	25	ug/L	EPA 8260B	09/13/12 15:03
Total Xylenes	13000	25	ug/L	EPA 8260B	09/13/12 15:03
Methyl-t-butyl ether (MTBE)	420	25	ug/L	EPA 8260B	09/13/12 15:03
TPH as Gasoline	110000	2500	ug/L	EPA 8260B	09/13/12 15:03
1,2-Dichloroethane-d4 (Surr)	99.5		% Recovery	EPA 8260B	09/13/12 15:03
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	09/13/12 15:03
TPH as Diesel (w/ Silica Gel)	< 800	800	ug/L	M EPA 8015	09/17/12 11:56
(Note: MRL increased due to interference	from Gasoline-r	ange hydrod	arbons.)		
TPH as Motor Oil (w/ Silica Gel)	430	100	ug/L	M EPA 8015	09/17/12 11:56
Octacosane (Silica Gel Surr)	133		% Recovery	M EPA 8015	09/17/12 11:56

Project Name: FORMER VAL STROUGH CHEVROLET

		Method			
	Measured	Reporting		Analysis	Date
Parameter	Value	Limit	Units	Method	Analyzed
TPH as Diesel (w/ Silica Gel)	< 50	50	ug/L	M EPA 8015	09/13/2012
TPH as Motor Oil (w/ Silica Gel)	< 100	100	ug/L	M EPA 8015	09/13/2012
Octacosane (Silica Gel Surr)	101		%	M EPA 8015	09/13/2012
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/2012
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/12/2012
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/12/2012
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/12/2012
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/12/2012
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/12/2012
1,2-Dichloroethane-d4 (Surr)	99.4		%	EPA 8260B	09/12/2012
Toluene - d8 (Surr)	100		%	EPA 8260B	09/12/2012
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/13/2012
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/13/2012
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/13/2012
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/13/2012
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	09/13/2012
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/13/2012
1,2-Dichloroethane-d4 (Surr)	99.9		%	EPA 8260B	09/13/2012
Toluene - d8 (Surr)	100		%	EPA 8260B	09/13/2012

		Method	ł				
	Measured	Reporti	ing	Analysis	Date		
Parameter	Value	Limit	Units	Method	Analyzed		

Date: 09/17/2012

Project Name: FORMER VAL STROUGH CHEVROLET

QC Report : Matrix Spike/ Matrix Spike Duplicate

	Spiked	Sample	Spike	Spike Dup.	Spiked Sample	Duplicate Spike Sample	e d	Analysis	Date	Spiked Sample Percent	Duplicat Spiked Sample Percent	e Relative Percent	Spiked Sample Percent Recov	Relative Percent Diff.
Parameter	Sample	Value	Level	Level	Value	Value	Units	Method	Analyzed	Recov.	Recov.	Diff.	Limit	Limit
TPH-D (Si Gel)														
	BLANK	<50	1000	1000	858	864	ug/L	M EPA 8015	9/13/12	85.8	86.4	0.669	70-130	25
Benzene														
	82542-03	<0.50	40.0	40.0	38.9	38.4	ug/L	EPA 8260B	9/12/12	97.4	96.0	1.43	80-120	25
Ethylbenzene														
	82542-03	<0.50	40.0	40.0	39.7	39.1	ug/L	EPA 8260B	9/12/12	99.2	97.7	1.50	80-120	25
Methyl-t-butyl e														
P + M Xylene	82542-03	<0.50	40.0	40.0	42.4	42.2	ug/L	EPA 8260B	9/12/12	106	106	0.473	69.7-121	25
F + IVI Aylerie	82542-03	<0.50	40.0	40.0	40.0	39.2	ug/L	EPA 8260B	9/12/12	100	98.0	2.07	76.8-120	25
Toluene	02342-03	\0.50	40.0	40.0	40.0	J9.2	ug/L	LI A 0200B	3/12/12	100	30.0	2.07	70.0-120	23
	82542-03	<0.50	40.0	40.0	39.7	39.3	ug/L	EPA 8260B	9/12/12	99.2	98.4	0.862	80-120	25
_														
Benzene														
□thydb on=one	82578-04	<0.50	40.0	40.0	40.0	39.2	ug/L	EPA 8260B	9/13/12	100	97.9	2.23	80-120	25
Ethylbenzene	00570.04	<0.F0	40.0	40.0	40.4	20.6	/1	EDA 0260D	0/40/40	100	00.0	4.20	00.400	0.5
Methyl-t-butyl e	82578-04 ther	<0.50	40.0	40.0	40.1	39.6	ug/L	EPA 8260B	9/13/12	100	98.9	1.38	80-120	25
sary. c saryi s	82578-04	1.8	40.0	40.0	44.8	44.1	ug/L	EPA 8260B	9/13/12	108	106	1.69	69.7-121	25

Date: 09/17/2012

Project Name: FORMER VAL STROUGH CHEVROLET

QC Report : Matrix Spike/ Matrix Spike Duplicate

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spike Sample Value	e ed Units	Analysis Method	Date Analyzed			Relative		Relative Percent Diff. Limit
P + M Xylene														
Toluene	82578-04	<0.50	40.0	40.0	40.5	39.7	ug/L	EPA 8260B	9/13/12	101	99.3	1.86	76.8-120	25
	82578-04	<0.50	40.0	40.0	40.6	39.9	ug/L	EPA 8260B	9/13/12	102	99.7	1.84	80-120	25

Date: 09/17/2012

QC Report : Laboratory Control Sample (LCS)

Project Name: FORMER VAL STROUGH CHEVROLET

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	39.8	ug/L	EPA 8260B	9/12/12	96.4	80-120
Ethylbenzene	39.8	ug/L	EPA 8260B	9/12/12	98.6	80-120
Methyl-t-butyl ether	39.8	ug/L	EPA 8260B	9/12/12	104	69.7-121
P + M Xylene	39.8	ug/L	EPA 8260B	9/12/12	99.6	76.8-120
TPH as Gasoline	501	ug/L	EPA 8260B	9/12/12	92.5	70.0-130
Toluene	39.8	ug/L	EPA 8260B	9/12/12	98.0	80-120
Benzene	39.8	ug/L	EPA 8260B	9/13/12	95.0	80-120
Ethylbenzene	39.8	ug/L	EPA 8260B	9/13/12	96.5	80-120
Methyl-t-butyl ether	39.8	ug/L	EPA 8260B	9/13/12	103	69.7-121
P + M Xylene	39.8	ug/L	EPA 8260B	9/13/12	97.0	76.8-120
TPH as Gasoline	501	ug/L	EPA 8260B	9/13/12	92.4	70.0-130
Toluene	39.8	ug/L	EPA 8260B	9/13/12	97.2	80-120



2795 2nd Street, Suite 300 Davis, CA 95618

Lab: 530.297.4800 Fax: 530.297.4802 SRG # / Lab No.

82544

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MW6		9/6/2012	13:45	x			_	_	х	_	_	_	_	\perp	lacksquare	L	X	х	х							X	х							x	x	<u> </u>	02
MW5		9/6/2012	14:27	x				\perp	х				1	_	\downarrow		х	х	х							х	х							x	\perp	_	83
MW4		9/6/2012	15:13	x					х			_					x	x	х							х	х							х	x		04
MW1		9/7/2012	9:00	x				\bot	x					\perp		_	x	x	х							х	х							х	\perp		05
01		9/7/2012	9:57	x					х				┸				x	x	х							х	х							х			06
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				1 14.14				110	١	 		7	-	mudi	<u> </u>	-		ale		├		1 11		 ' '	16111	IU #	+										
<u> </u>			10910	012 1050 Michelle Spencer						ITV	lal	<u> </u>	Ca	1						_		<u> </u>							res	/ No							



SAMPLE RECEIPT CHECKLIST

RECEIVER

M. 45
Initials

SRG#:	82546		Date:	091012	
Project ID:	FORMER VAL	STROLO	sit ch	EUROLET	
Method of Receip		er-the-counter			
	dEx * OnTrac * Greyhound	Other *Servic	e level if not Pri	ority or Sunrise (M-F):	
COC Inspection Is COC present? Custody seals on shipping of		Dated?	Yes Intact Yes	☐ No ☐ Broken ☐ No ☐ No	ot present M/A
Is COC Signed by Relinqui Is sampler name legibly inc Is analysis or hold requeste Is the turnaround time indic	licated on COC? d for all samples? cated on COC?	Dated:	Yes Yes Yes	☐ No ☐ No ☐ No	☐ No, Cross-outs
Is COC free of whiteout an	d uninitialed cross-outs?		Yes	No, winteout	
Temperature °C 2.2 Are there custody seals on Do containers match COC Are there samples matrices Are any sample containers Are preservatives indicated Are preservatives correct for Are samples within holding Are the correct sample con Is there sufficient sample to Does any sample contain per Receipt Details Matrix Matrix Matrix Matrix	other than soil, water, air or obroken, leaking or damaged? Yes, on sample cor analyses requested? tainers used for the analyses reperform testing? container type Container type Container type Container type Container type	Initial M 4, o, COC lists abcarbon? containers equested? ee otherwise su # of con # of con # of con # of con	Intact sent sample(s Yes Yes Yes, on o Yes Yes Yes Yes Yes Yes Yes Intainers receivationers receivationers receivations	No N	Not present
Quicklog Are the Sample ID's indicated: If Sample ID's are listed on Is the Project ID indicated: If project ID is listed on both Are the sample collection of If collection dates are listed Are the sample collection of If collection times are listed.	n both COC and containers, do On COC oth COC and containers, do the dates indicated: On COC on both COC and containers indicated: On COC on both COC and containers on both COC and containers.	On sa o they all mato On sa ey all match? On sa s, do they all n On sa	mple contained the contained t	er(s) On Both Yes No er(s) On Both	Not indicated N/A
COMMENTS: Poss	ible insufficier	it sau	uple f	0: -10 - Dn	4 3 UOA5
Containing the Ziplois, MA	uple labels on se UOAS is clear s 091012 109	evly lab	ure sur	eared. The ong with a	Zipital LI the other
					1,000
, ex				Age and a second	