

**RECEIVED**

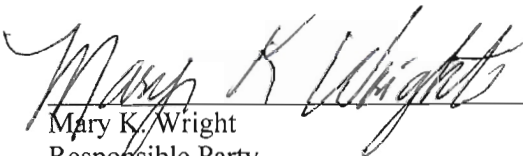
By Alameda County Environmental Health at 2:48 pm, Apr 22, 2013

April 22, 2013

Reference: First Semi-Annual Groundwater Monitoring and Sampling Report of 2013  
Former F&M Auto Service UST Site  
1839 Foothill Boulevard  
Oakland, Alameda County, California 94606  
  
Alameda County, Case #: RO 3077

**PERJURY STATEMENT**

As the Responsible Party (RP) for this Site, I declare that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.

  
\_\_\_\_\_  
Mary K. Wright  
Responsible Party



April 22, 2013

Ms. Karel Detterman  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

**Subject: First Semi-Annual Groundwater Monitoring and Sampling Report of 2013**  
Former F&M Auto Service UST Site  
Alameda County, Case # RO 3077  
1839 Foothill Boulevard, Oakland, California

Dear Ms. Detterman:

On behalf of Ms. Mary Wright, current property owner, and Mr. James Balsley, prospective property owner, Sierra West Consultants, Inc. (Sierra West) is pleased to provide this *First Quarter 2013 Groundwater Monitoring and Sampling Report* for the Former F&M Auto Service Underground Storage Tank (UST) Site located at 1839 Foothill Boulevard, Oakland, California (Site). The Site is located at the northwest corner of the intersection of Foothill Boulevard and 19th Avenue, in Oakland, California. A Site Location Map is included as **Figure 1**.

This quarterly report presents Site background information, groundwater level measurements, groundwater sampling and analytical testing results, and a request for modification of the groundwater monitoring program.

### **Site Background**

The Site is identified by Alameda County Assessors Parcel Number 20-164-6, and is a rectangular lot surrounded by a chain link fence with approximate dimensions of 100 feet long by 40 feet wide. The Site is a former gasoline service station that is estimated to have been constructed sometime during the 1950's. The service station ceased operation in 1995 and an auto detailing service operated at the property from 1997 through 2001. The property has been unoccupied since 2001. The southern section of the Site consisted of a small metal-framed retail building with an overhead canopy that covered a concrete pad and a dispenser island containing three gasoline pumps. The northern section of the Site consisted of a metal-framed structure that included a storage shed, an auto service garage, and a canopy that covered waste oil containers and other equipment.

There were a total of four USTs at the Site. UST#1 and UST#2 each had a capacity of 1,000-gallons, contained gasoline during operation of the service station, and were located at the southern end of the Site. UST#3 had a capacity of 550-gallons, and was located in the central portion of the Site. UST#3 contained gasoline during operation of the service station. UST#4 had a capacity of 100-gallons, and was located at the northern end of the Site. UST#4 likely contained oil during operation of the service station. The Site structures were demolished and the four USTs and surrounding soils were removed between March 29 and April 8, 2011.

During the subsequent environmental assessment performed in January 2012, soil borings B-1 through B-3 were drilled and monitoring wells MW-1 through MW-4 were installed at the Site. Analysis of soil and groundwater samples from the soil borings and monitoring wells showed that the greatest hydrocarbon impacts are present in the vicinity of former UST#1 and UST#2. Hydrocarbon impacts were also observed in the vicinity of former UST#3, and low level detections of methyl tertiary butyl ether (MTBE) near laboratory reporting limits were also observed near former UST#4. Results from this investigation were described in Sierra West's *Site Conceptual Model with Soil and Groundwater Investigation Results Report*, submitted to Alameda County Environmental Health (ACEH) on March 9, 2012. Locations of the monitoring wells, soil borings, and former Site features including structures and USTs, are shown on the Site Plan included as **Figure 2**.

In their letter dated August 29, 2012, ACEH requested that the Site conceptual model be revised, and that a data gap work plan be prepared to assess downgradient impacts. Sierra West prepared the *Site Conceptual Model and Data Gap Work Plan*, dated November 19, 2012 (Work Plan), that included the requested site conceptual model revisions, as well as a work plan to install downgradient monitoring wells and perform a soil vapor survey in the source area. ACEH responded to the Work Plan in their letter dated April 5, 2013, and requested that an addendum be prepared that includes performing several soil boring transects downgradient of the source area, as well as modifying the proposed well construction details, expanding the sampling and analysis plan, and revising the soil vapor sampling plan. Sierra West understands the intentions of ACEH's request, however budget limitations will limit the scope of work to be implemented. As such, Sierra West will prepare the *Work Plan Addendum* with modifications to ACEH's request that achieve the desired data collection objectives while working within the available budget. The *Work Plan Addendum* will be submitted to ACEH by May 3, 2013, as requested in their April 5, 2013 letter.

### **Groundwater Level Measurements**

Groundwater level measurements were taken on March 26, 2013, from groundwater wells MW-1 through MW-4. Free phase hydrocarbons or product sheen were not encountered in any of the monitoring wells. A copy of the well gauging data sheet is included in **Attachment A**, and a summary of historical groundwater elevation data is presented in **Table 1**. Groundwater flow across the Site was generally to the south with a hydraulic gradient of approximately 0.0578 feet per foot (ft/ft). A groundwater elevation contour map is included as **Figure 3**.

### **Groundwater Sampling**

Groundwater samples were collected from monitoring wells MW-1 through MW-4 on March 26, 2013. Sampling was performed using the three-volume purge method with a centrifugal pump. Copies of the well sampling data sheets are included in **Attachment A**. The samples were delivered, under chain-of-custody (COC) protocol, to Accutest Laboratories, a State-of-California certified laboratory located in San Jose, California. Samples were analyzed for the following:

- Total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX), and MTBE by Environmental Protection Agency (EPA) Method 8260B; and,
- Total petroleum hydrocarbons as diesel (TPHd) by EPA Method 8015M.

Additionally, samples collected from MW-1 and MW-2 were analyzed for diisopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and tertiary butyl alcohol (TBA) by EPA Method 8260B, and for dissolved lead by EPA Method 6010B. A copy of the certified laboratory analytical report with COC documentation is included as **Attachment B**. A summary of current and historical analytical results is included as **Table 1**.

### Groundwater Analytical Results

The primary constituents of concern in groundwater beneath the Site are TPHd, TPHg, BTEX constituents, and MTBE. A tabular summary of groundwater testing results is presented below. The summary also includes a comparison with applicable environmental screening limits (ESLs), as defined by the San Francisco Bay Regional Water Quality Control Board (RWQCB) in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater – Table A* (February, 2013), for shallow soils where groundwater is a current or potential source of drinking water.

**Analytical Results from the First Quarterly Event of 2013**

Well ID	TPHd µg/L	TPHg µg/L	B µg/L	T µg/L	E µg/L	X µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	TBA µg/L	Dissolved Lead µg/L
<b>MW-1</b>	<b>511</b>	<b>3,160</b>	<b>694</b>	<b>98.8</b>	<b>27.4</b>	<b>51.9</b>	<b>146</b>	<20	<20	<20	<100	<10
<b>MW-2</b>	<b>1,590</b>	<b>4,830</b>	<b>54.6</b>	2.1 <sup>J</sup>	18.6	11.3	<b>83.8</b>	<10	3.7 <sup>J</sup>	<10	<50	<10
<b>MW-3</b>	71.1 <sup>J</sup>	26.0 <sup>J</sup>	<1.0	<1.0	<1.0	<2.0	1.6	--	--	--	--	--
<b>MW-4</b>	38.8 <sup>J</sup>	<50	<1.0	<1.0	<1.0	<2.0	<1.0	--	--	--	--	--
<b>ESL</b>	100	100	1.0	40	30	20	5.0	NA	NA	NA	12	2.5

Notes: - ESLs for DIPE, ETBE, and TAME have not been established by the RWQCB.  
- Concentrations exceeding their respective ESLs are presented in bold.  
- <sup>J</sup> indicates an estimated value, as reported by laboratory.

Consistent with previous observations, the greatest constituent concentrations in groundwater were observed in MW-1. MW-1 is located immediately downgradient of the former location of UST#1 and UST#2, where the highest concentrations were observed during UST removal and excavation. The results from the fourth quarterly event of 2012 are summarized below:

- In the sample collected from MW-1, concentrations of TPHd, TPHg, BTEX constituents, and MTBE exceeded their respective ESLs for the fifth consecutive monitoring event.
- In the sample collected from MW-2, concentrations of TPHg, TPHd, benzene, and MTBE exceeded their respective ESLs for the fifth consecutive monitoring event.
- In the sample collected from MW-3, TPHd and TPHg were observed below their reporting limits, but above their respective method detection limits at estimated concentrations of 71.1 and 26.0 micrograms per liter (µ/L). MTBE was detected below its ESL at a concentration of 1.6 µg/L.
- In the sample collected from MW-4, no constituents were detected above their respective laboratory reporting limits. TPHd however, was observed above its method detection limit at an estimated concentration of 38.8 µL.

A groundwater concentration map, including iso-concentration lines for TPHg, is included as **Figure 4**. Groundwater concentration trend plots for wells MW-1 through MW-3 are included as **Attachment C**.



### **Future Groundwater Monitoring and Sampling Events**

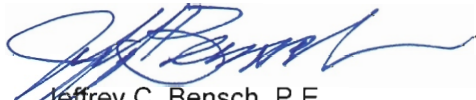
In accordance with ACEH's letter dated April 5, 2013, the frequency of groundwater monitoring and sampling events will be reduced from quarterly to semi-annual, and the analyses performed on each sample will be modified as follows:

- Samples collected from MW-1 and MW-2 will be analyzed for TPHg, TPHd, BTEX, MTBE, DIPE, ETBE, TAME, TBA, and dissolved lead.
- Samples collected from MW-3 and MW-4 will be analyzed for TPHg, TPHd, BTEX, and MTBE.

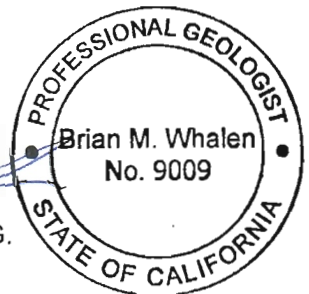

The next groundwater monitoring event will be performed during the fourth quarter of 2013.

Sierra West appreciates this opportunity to provide environmental services at the Former F&M Auto Service UST Site. If you have any questions regarding this report, please contact Jeff Bensch or Brian Whalen at (916) 863-3220.

Sincerely,  
**Sierra West Consultants, Inc.**



Jeffrey C. Bensch, P.E.  
Principal Engineer



Brian Whalen, P.G.  
Project Geologist

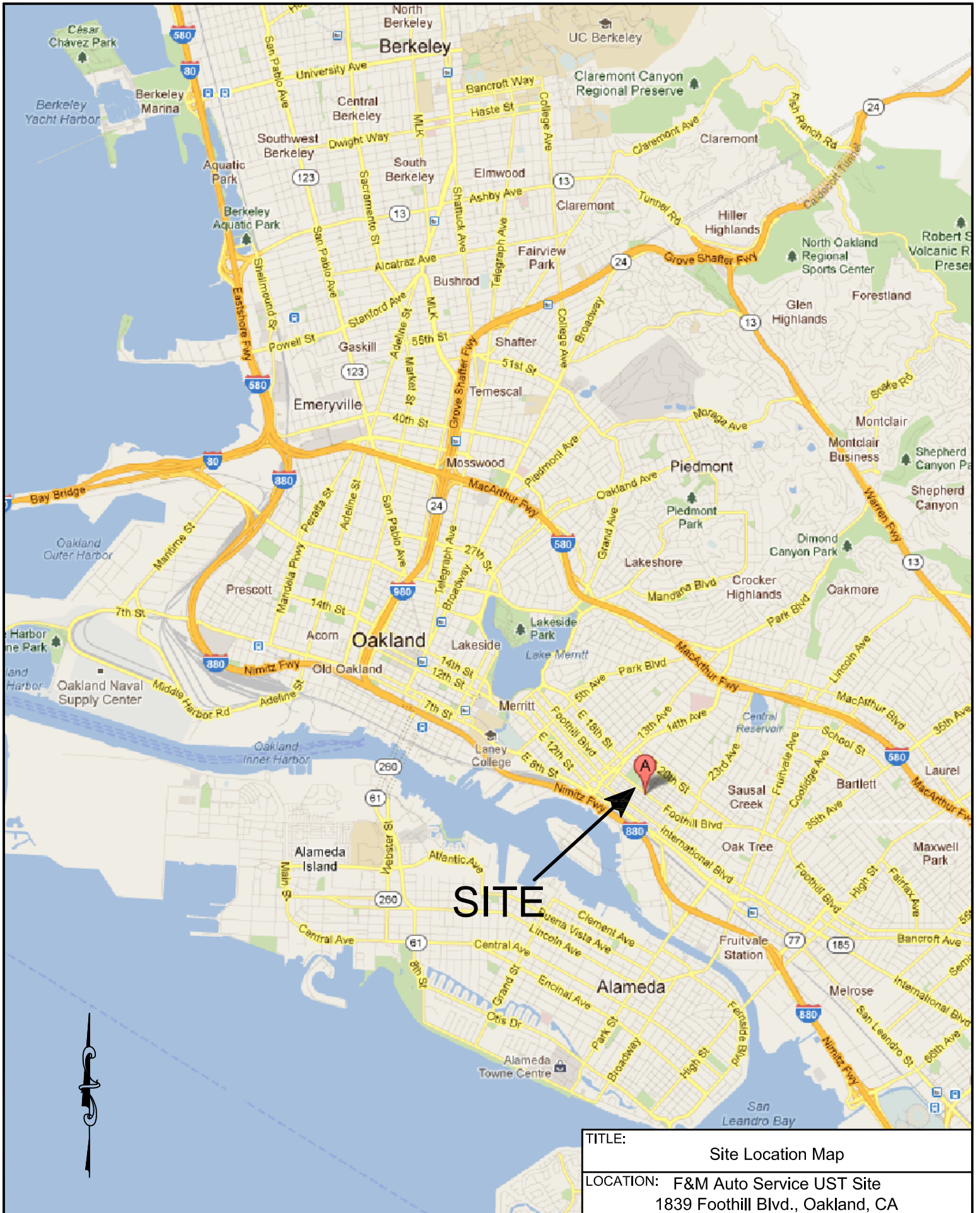
Cc: Ms. Mary Wright, Property Owner  
Mr. James Balsley, Prospective Property Owner  
Ms. Marissa Rodarte, Orphan Site Cleanup Fund

Figures:  
Figure 1 – Site Location Map  
Figure 2 – Site Plan  
Figure 3 – Groundwater Elevation Map  
Figure 4 – Groundwater Concentration Map

Tables:  
Table 1 – Groundwater Elevation and Analytical Results

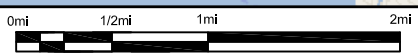
Attachments:  
Attachment A – Well Sampling and Gauging Field Sheets  
Attachment B – Groundwater Sampling Laboratory Analytical Report  
Attachment C – Groundwater Concentration Trend Plots

## Figures



**SITE**

TITLE:	Site Location Map
LOCATION:	F&M Auto Service UST Site 1839 Foothill Blvd., Oakland, CA



SCALE 1" = 1 mile  
(Scale is approximate)

Source: Google Maps, 2012



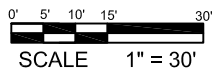
FIGURE:  
1





**Legend:**

- ⊕ - Monitoring Well
- - Soil Boring



**Notes:**

- 1) Well locations based on survey data provided by Virgil Chavez Land Surveying on 1/31/2012.
- 2) Locations of USTs and former Site structures are approximate.
- 3) Former Site structures were demolished on March 31, 2011.
- 4) USTs were removed on April 6, 2011.

TITLE:

Site Plan

LOCATION:

F&M Auto Service UST Site  
1839 Foothill Blvd., Oakland, CA

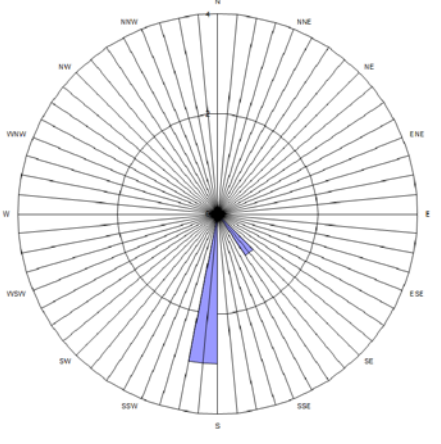


**SIERRA WEST**  
CONSULTANTS, INC.

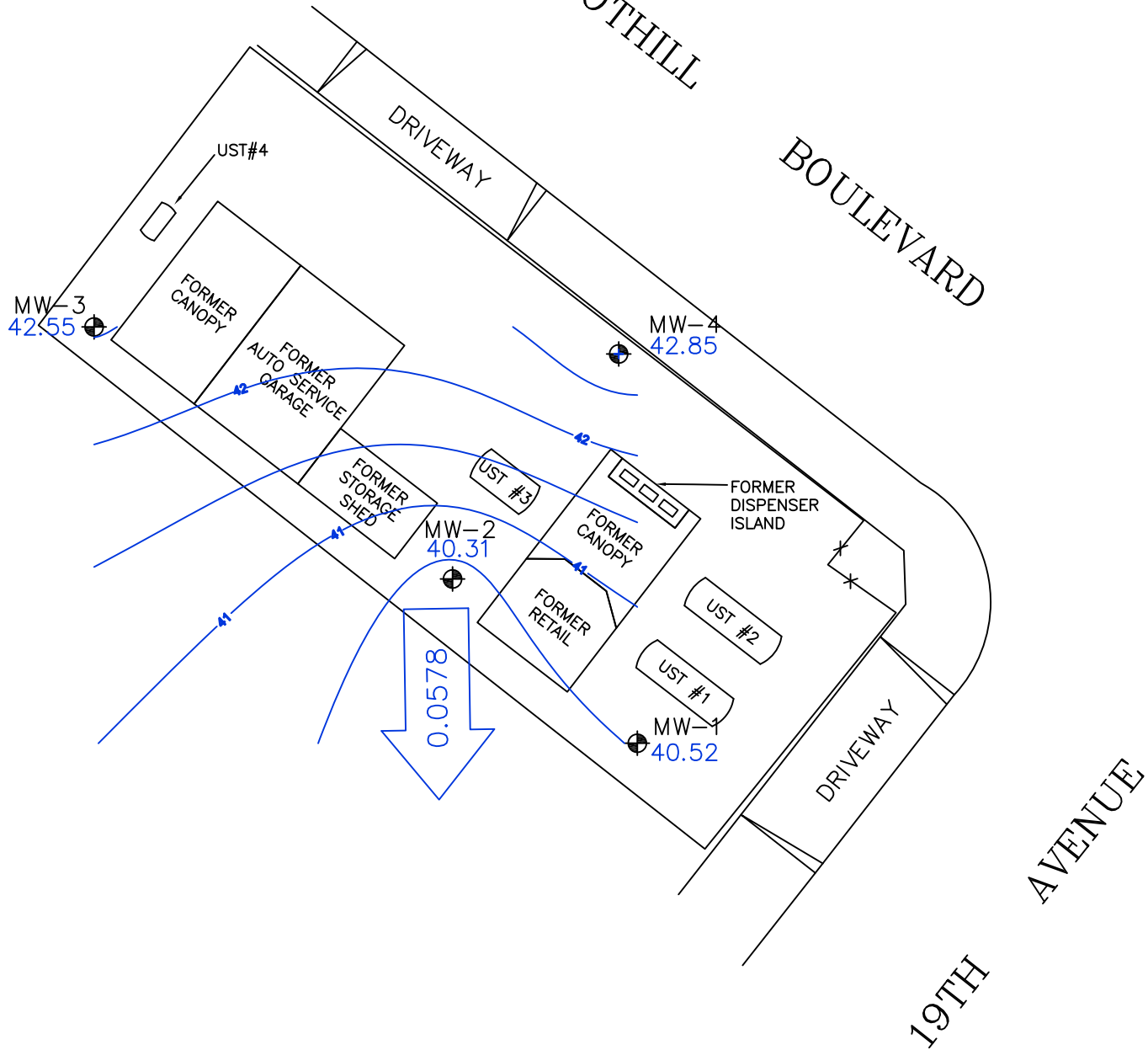
FIGURE:

2



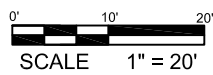


FOOTHILL BOULEVARD




**Legend:**

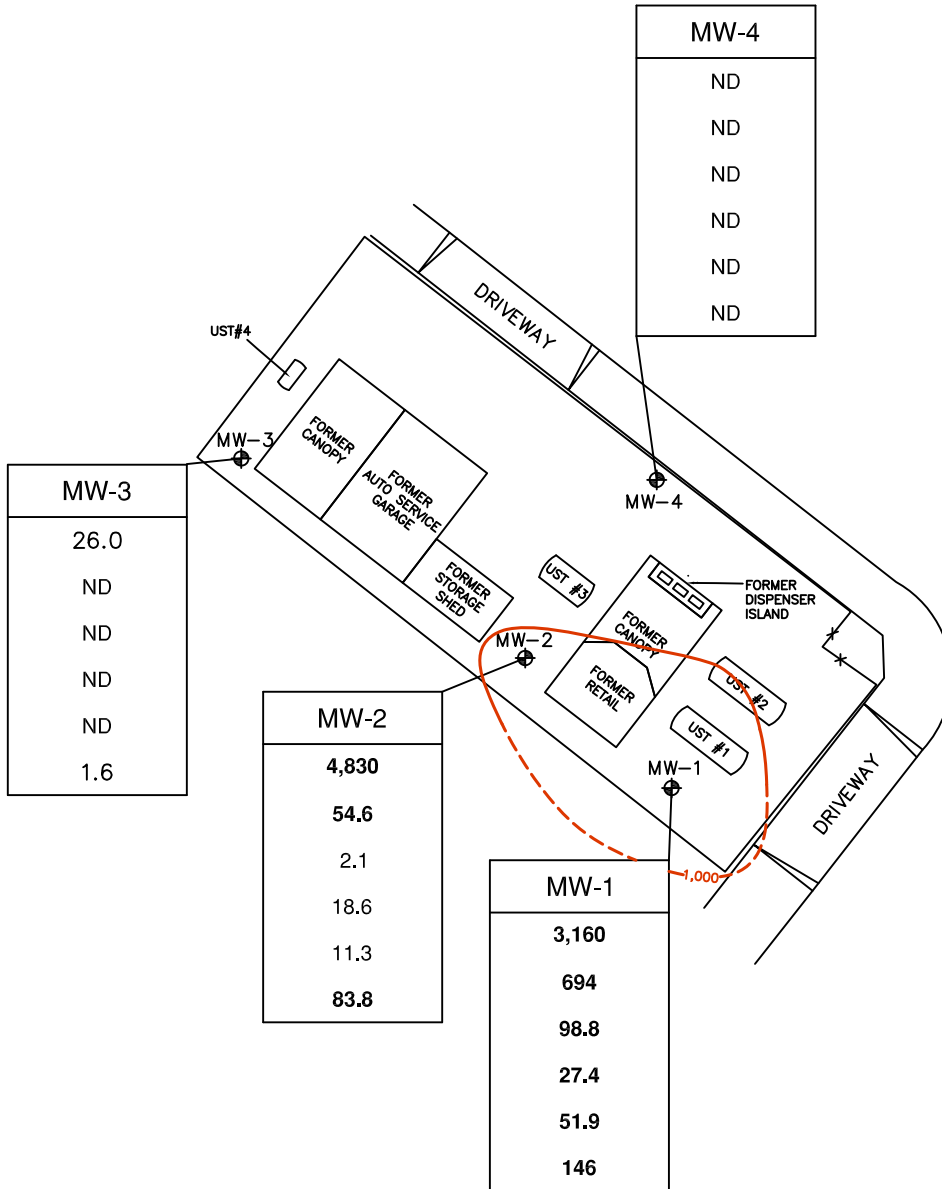
⊕ - Monitoring Well



**Notes:**

- 1) Groundwater elevation was measured on March 26, 2013.
- 2) Well locations based on survey data provided by Virgil Chavez Land Surveying on 1/31/2012.
- 3) Locations of USTs and former Site structures are approximate.
- 4) Former Site structures were demolished on March 31, 2011.
- 5) USTs were removed on April 6, 2011.

TITLE: Groundwater Elevation Map	
LOCATION: F&M Auto Service UST Site 1839 Foothill Blvd., Oakland, CA	
	FIGURE: 3



**Legend:**

- Monitoring Well



- TPHg Isocontour (Dashed where inferred)

Well / Boring ID	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE

- Grab Groundwater Concentrations in micrograms per liter (ug/L).
- Concentrations exceeding Environmental Screening Limits presented in bold.
- Concentrations below laboratory detection limits presented as ND.

**Notes:**

- 1) Well locations based on survey data provided by Virgil Chavez Land Surveying on 1/31/2012.
- 2) Locations of USTs and former Site structures are approximate.
- 3) Former Site structures were demolished on March 31, 2011.
- 4) USTs were removed on April 6, 2011.

TITLE: Groundwater Concentration Map  
March 26, 2013

LOCATION: F&M Auto Service UST Site  
1839 Foothill Blvd., Oakland, CA



FIGURE:

## Tables



**TABLE 1**  
**GROUNDWATER ELEVATION AND ANALYTICAL RESULTS**  
Former F&M Auto Service UST Site  
1839 Foothill Boulevard, Oakland, California

SAMPLE LOCATION (TOC Elevation) <sup>1</sup>	DATE SAMPLED	DEPTH TO WATER (ft. bgs)	GROUND-WATER ELEVATION (ft. msl)	Product Thickness (ft) or Sheen	TPHd (µg/L)	TPHg (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL-BENZENE (µg/L)	XYLENES (µg/L)	OXYGENATES					LEAD (µg/L)
											MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	
<b>MW-1</b> 49.71	1/31/2012	8.73	40.98	0.00	2,220	27,800	2,750	3,470	577	2,840	507	<100	<100	<100	<500	86.4
	4/20/2012	6.45	43.26	0.00	802	11,100	2,280	795	207	544	563	<100	<100	<100	<500	10.5
	7/23/2012	10.02	39.69	0.00	262	5,760	615	137	55.9	92.8	245	<20	<20	<20	<100	<10
	12/13/2012	9.70	40.01	Sheen	506	16,100	3,440	1,240	283	941	596	<100	<100	<100	<500	<10
	3/26/2013	9.19	40.52	0.00	511	3,160	694	98.8	27.4	51.9	146	<20	<20	<20	<100	<10
<b>MW-2</b> 50.53	1/31/2012	8.97	41.56	0.00	1,120	3,390	38.8	2.8 <sup>2</sup>	7.6 <sup>2</sup>	9.5 <sup>2</sup>	116	<20	4.5 <sup>2</sup>	<20	<100	63.5
	4/20/2012	7.27	43.26	0.00	743	5,000	64.1	2.6 <sup>2</sup>	36.3	27.1	115	<10	4.6 <sup>2</sup>	<10	<50	<10
	7/23/2012	11.45	39.08	0.00	603	3,280	30.6	1.4 <sup>2</sup>	17.2	10.4	72.4	<10	2.6 <sup>2</sup>	<10	<50	<10
	12/13/2012	9.05	41.48	0.00	322	3,670	39.7	2.3 <sup>2</sup>	15.8	13.2	76.0	<10	2.9 <sup>2</sup>	<10	<50	<10
	3/26/2013	10.22	40.31	0.00	1,590	4,830	54.6	2.1 <sup>2</sup>	18.6	11.3	83.8	<10	3.7 <sup>2</sup>	<10	<50	<10
<b>MW-3</b> 50.59	1/31/2012	7.25	43.34	0.00	324	<50	<1.0	<1.0	<1.0	<2.0	6.1	<2.0	<2.0	<2.0	<10	14.1
	4/20/2012	6.65	43.94	0.00	123	<50	<1.0	<1.0	<1.0	<2.0	4.7	<2.0	<2.0	<2.0	<10	<10
	7/23/2012	9.06	41.53	0.00	87.6 <sup>2</sup>	<50	<1.0	<1.0	<1.0	<2.0	2.7	<2.0	<2.0	<2.0	<10	<10
	12/13/2012	5.47	45.12	0.00	<94	<50	<1.0	<1.0	<1.0	<2.0	3.1	<2.0	<2.0	<2.0	<10	<10
	3/26/2013	8.04	42.55	0.00	71.1 <sup>2</sup>	26.0 <sup>2</sup>	<1.0	<1.0	<1.0	<2.0	1.6	--	--	--	--	--
<b>MW-4</b> 50.47	1/31/2012	6.52	43.95	0.00	50.2 <sup>2</sup>	<50	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<2.0	<2.0	<10	<10
	4/20/2012	5.62	44.85	0.00	45.5 <sup>2</sup>	<50	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<2.0	<2.0	<10	<10
	7/23/2012	8.47	42.00	0.00	<94	<50	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<2.0	<2.0	<10	<10
	12/13/2012	5.05	45.42	0.00	<96	<50	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<2.0	<2.0	<10	<10
	3/26/2013	7.62	42.85	0.00	38.8 <sup>2</sup>	<50	<1.0	<1.0	<1.0	<2.0	<1.0	--	--	--	--	--
Environmental Screening Limits <sup>3</sup>					100	100	1.0	40	30	20	5.0	--	--	--	12	2.5

**Notes:**

<sup>1</sup> = Wells surveyed by Virgil Chavez Land Surveying on 1/31/2012.

<sup>2</sup> = Estimated value

<sup>3</sup> = Environmental Screening Limits (ESLs) referenced from *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, Table A (California Regional Water Quality Control Board, San Francisco Bay Region, February 2013), for shallow soils on commercial land use sites where groundwater is a current or potential source of drinking water. Concentrations exceeding their respective ESLs are presented in **bold**. ESLs have not been established for DIBP, ETBE, or TAME.

ft. bgs = Feet below ground surface (measured from top of casing)

ft. msl = Feet above mean sea level

µg/L = Micrograms per liter

TPHd = Total petroleum hydrocarbons as diesel

TPHg = Total petroleum hydrocarbons as gasoline

MTBE = Methyl tertiary butyl ether

DIPE = Diisopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert butanol

LEAD = Dissolved lead

**Attachment A –  
Well Sampling and Gauging Field Sheets**

SIERRA WEST CONSULTANTS  
Groundwater/Liquid Level Data  
(Measurements in feet)

Project Address: F&M Auto  
1839 Foothill Blvd.  
Oakland, CA

Date: 3-26-13

Project: F&M Auto

Recorded by: Edgar Olineka

Well No.	Time	Well Elev. TOC	Depth to Groundwater	Measured Total Depth	Groundwater Elevation	Depth to Product	Product Thickness	Comments
MW-1	9:01		9.19	23.70				
MW-2	9:06		10.22	23.81				
MW-3	9:13		8.04	23.72				
MW-4	9:17		7.62	23.84				

Notes:



Site: F&M Auto

Sampling Date: 3-26-13

1839 Foothill Blvd.

Project No.: \_\_\_\_\_

Oakland, CA

Well Designation: MU-1

Is there standing water in the well box? NO YES Above TOC Below TOC  
 Is top of casing cut level? NO YES If no, see remarks  
 Is well cap sealed and locked? NO YES If no, see remarks  
 Height of well casing riser (in inches): 3  
 Well cover type: 8" or 12" UV X 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_  
 12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_  
 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_  
 General condition of wellhead assembly: Excellent \_\_\_\_\_ Good X Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer \_\_\_\_\_ Centrifugal pump X  
 Sampled with: Disposable bailer X Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2" X 4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_  
 Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 9:01 Time: 11:50 Calculated purge: 6.9  
 Depth of well: 23.70 Depth to water: 10.70 Actual purge: 7.0  
 Depth to water: 9.19

Start purge: 10:01 Sampling time: 11:53

Time	Temperature	E.C.	pH	DO	ORP	Volume
10:06	18.6	670	8.20	4.03	-30	1
10:09	18.1	641	8.18	4.01	-80	2
10:16	19.0	640	8.17	4.15	-112	3

Sample appearance: Clear Lock: NA

Equipment replaced: (check all that apply) Note condition of replaced item(s)  
 2" Locking Cap: \_\_\_\_\_ Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: EO

Site: F&M Auto

Sampling Date: 3-26-13

1839 Foothill Blvd.

Project No.: \_\_\_\_\_

Oakland, CA

Well Designation: MU-2

Is there standing water in the well box? NO YES Above TOC Below TOC  
 Is top of casing cut level? NO YES If no, see remarks  
 Is well cap sealed and locked? NO YES If no, see remarks  
 Height of well casing riser (in inches): 2  
 Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_  
 12" Christy \_\_\_\_\_ 8" M&D X 12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_  
 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_  
 General condition of wellhead assembly: Excellent \_\_\_\_\_ Good \_\_\_\_\_ Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer X Centrifugal pump  
 Sampled with: Disposable bailer X Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2" X 4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_  
 Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 9:06 Time: 11:59 Calculated purge: 6-5  
 Depth of well: 23.81 Depth to water: 11.92 Actual purge: 7.0  
 Depth to water: 10.22

Start purge: 1030 Sampling time: 12:01

Time	Temperature	E.C.	pH	DO	ORP	Volume
1034	19.6	740	8.29	1.60	-36	1
1039	19.7	756	8.21	2.01	-31	2
1045	19.8	755	8.18	2.70	-30	3

Sample appearance: Clear Lock: NA

Equipment replaced: (check all that apply) Note condition of replaced item(s)  
 2" Locking Cap: \_\_\_\_\_ Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: EO

Site: F&M Auto  
1839 Foothill Blvd.  
Oakland, CA

Sampling Date: 3-26-13  
 Project No.: \_\_\_\_\_  
 Well Designation: MU-3

Is there standing water in the well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level?  NO YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 3  
 Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_  
 12" Christy \_\_\_\_\_ 8" M&D  12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_  
 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_  
 General condition of wellhead assembly: Excellent \_\_\_\_\_ Good  Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump  
 Sampled with: Disposable bailer  Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_  
 Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 9:13 Time: 12:10 Calculated purge: 7.5  
 Depth of well: 23.72 Depth to water: 9.77 Actual purge: 8.0  
 Depth to water: 8.04

Start purge: 11:06 Sampling time: 12:11

Time	Temperature	E.C.	pH	DO	ORP	Volume
11:10	19.6	748	8.14	1.03	19	1
11:16	19.6	742	8.06	1.08	24	2
11:20	19.7	740	8.05	1.60	26	3

Sample appearance: Clear Lock: NA

Equipment replaced: (check all that apply) Note condition of replaced item(s)  
 2" Locking Cap: \_\_\_\_\_ Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: EO



Site: F&M Auto

Sampling Date: 3-26-13

1839 Foothill Blvd.

Project No.: \_\_\_\_\_

Oakland, CA

Well Designation: MW-4

Is there standing water in the well box?  NO YES

Above TOC Below TOC

Is top of casing cut level?  NO YES

If no, see remarks

Is well cap sealed and locked?  NO YES

If no, see remarks

Height of well casing riser (in inches): 2

Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_

12" Christy \_\_\_\_\_ 8" M&D  12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_

12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_

General condition of wellhead assembly: Excellent \_\_\_\_\_ Good  Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump

\_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer

\_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer  Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 9:17 Time: 12:14 Calculated purge: 7.7

Depth of well: 23.84 Depth to water: 8.85 Actual purge: 8.0

Depth to water: 7.62

Start purge: 11:36

Sampling time: 12:15

Time	Temperature	E.C.	pH	DO	ORP	Volume
1138	19.3	656	7.88	2.06	18	1
1141	19.4	653	7.82	2.10	24	2
1144	19.5	651	7.80	2.15	25	3

Sample appearance: clear

Lock: NA

Equipment replaced: (check all that apply)

Note condition of replaced item(s)

2" Locking Cap: \_\_\_\_\_

Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_

4" Locking Cap: \_\_\_\_\_

Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_

6" Locking Cap: \_\_\_\_\_

Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: EO

**Attachment B –  
Groundwater Sampling Laboratory Analytical Report**

**Technical Report for**

**Sierra West Consultants, Inc.**

**T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA**

**Accutest Job Number: C26859**

**Sampling Date: 03/26/13**

**Report to:**

**Sierra West Consultants, Inc.**  
**4227 Sunrise Blvd Suite#220**  
**Fair Oaks, CA 95628**  
**jbensch@sierra-west.net; bwhalen@sierra-west.net**  
**ATTN: Jeff Bensch**

**Total number of pages in report: 36**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

**James J. Rhudy**  
**Lab Director**

**Client Service contact: Nutan Kabir 408-588-0200**

Certifications: CA (08258CA) AZ (AZ0762) DoD/ISO/IEC 17025:2005 (L2242)

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Test results relate only to samples analyzed.

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### Sample Summary

Sierra West Consultants, Inc.

**Job No:** C26859

T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C26859-1	03/26/13	11:53 EO	03/26/13	AQ	Ground Water	MW-1
C26859-1F	03/26/13	11:53 EO	03/26/13	AQ	Groundwater Filtered	MW-1
C26859-1FA	03/26/13	11:53 EO	03/26/13	AQ	Groundwater Filtered	MW-1
C26859-2	03/26/13	12:01 EO	03/26/13	AQ	Ground Water	MW-2
C26859-2F	03/26/13	12:01 EO	03/26/13	AQ	Groundwater Filtered	MW-2
C26859-2FA	03/26/13	12:01 EO	03/26/13	AQ	Groundwater Filtered	MW-2
C26859-3	03/26/13	12:11 EO	03/26/13	AQ	Ground Water	MW-3
C26859-3F	03/26/13	12:11 EO	03/26/13	AQ	Groundwater Filtered	MW-3
C26859-4	03/26/13	12:15 EO	03/26/13	AQ	Ground Water	MW-4
C26859-4F	03/26/13	12:15 EO	03/26/13	AQ	Groundwater Filtered	MW-4

## Summary of Hits

**Job Number:** C26859  
**Account:** Sierra West Consultants, Inc.  
**Project:** T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA  
**Collected:** 03/26/13

Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
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### C26859-1 MW-1

Benzene	694	10	2.0	ug/l	SW846 8260B
Toluene	98.8	10	2.0	ug/l	SW846 8260B
Ethylbenzene	27.4	10	2.0	ug/l	SW846 8260B
Xylene (total)	51.9	20	4.6	ug/l	SW846 8260B
Methyl Tert Butyl Ether	146	10	2.0	ug/l	SW846 8260B
TPH-GRO (C6-C10)	3160	500	250	ug/l	SW846 8260B
TPH (C10-C28)	0.511	0.094	0.024	mg/l	SW846 8015B M

### C26859-1FA MW-1

No hits reported in this sample.

### C26859-2 MW-2

Benzene	54.6	5.0	1.0	ug/l	SW846 8260B
Toluene	2.1 J	5.0	1.0	ug/l	SW846 8260B
Ethylbenzene	18.6	5.0	1.0	ug/l	SW846 8260B
Xylene (total)	11.3	10	2.3	ug/l	SW846 8260B
Methyl Tert Butyl Ether	83.8	5.0	1.0	ug/l	SW846 8260B
Ethyl Tert Butyl Ether	3.7 J	10	1.1	ug/l	SW846 8260B
TPH-GRO (C6-C10)	4830	250	130	ug/l	SW846 8260B
TPH (C10-C28)	1.59	0.094	0.024	mg/l	SW846 8015B M

### C26859-2FA MW-2

No hits reported in this sample.

### C26859-3 MW-3

Methyl Tert Butyl Ether	1.6	1.0	0.20	ug/l	SW846 8260B
TPH-GRO (C6-C10)	26.0 J	50	25	ug/l	SW846 8260B
TPH (C10-C28)	0.0711 J	0.096	0.024	mg/l	SW846 8015B M

### C26859-4 MW-4

TPH (C10-C28)	0.0388 J	0.094	0.024	mg/l	SW846 8015B M
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Sample Results

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Report of Analysis

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# Report of Analysis

<b>Client Sample ID:</b> MW-1		
<b>Lab Sample ID:</b> C26859-1		<b>Date Sampled:</b> 03/26/13
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 03/26/13
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V12066.D	10	04/04/13	TN	n/a	n/a	VV493
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

**Purgeable Aromatics, MTBE**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	694	10	2.0	ug/l	
108-88-3	Toluene	98.8	10	2.0	ug/l	
100-41-4	Ethylbenzene	27.4	10	2.0	ug/l	
1330-20-7	Xylene (total)	51.9	20	4.6	ug/l	
1634-04-4	Methyl Tert Butyl Ether	146	10	2.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	20	2.2	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	20	2.2	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	20	4.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	100	24	ug/l	
	TPH-GRO (C6-C10)	3160	500	250	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

3.1  
3

<b>Client Sample ID:</b> MW-1	
<b>Lab Sample ID:</b> C26859-1	<b>Date Sampled:</b> 03/26/13
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/26/13
<b>Method:</b> SW846 8015B M SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b> T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG41888.D	1	03/27/13	AG	03/26/13	OP7716	GGG1117
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

### TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	0.511	0.094	0.024	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	90%		32-124%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW-1		
<b>Lab Sample ID:</b> C26859-1FA		<b>Date Sampled:</b> 03/26/13
<b>Matrix:</b> AQ - Groundwater Filtered		<b>Date Received:</b> 03/26/13
		<b>Percent Solids:</b> n/a
<b>Project:</b> T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA		

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 10	10	ug/l	1	04/11/13	04/15/13 RS	SW846 6010B <sup>1</sup>	SW3010A <sup>2</sup>

(1) Instrument QC Batch: MA3106

(2) Prep QC Batch: MP6066

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW-2		<b>Date Sampled:</b> 03/26/13
<b>Lab Sample ID:</b> C26859-2		<b>Date Received:</b> 03/26/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V12010.D	5	04/03/13	TN	n/a	n/a	VV491
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

## Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	54.6	5.0	1.0	ug/l	
108-88-3	Toluene	2.1	5.0	1.0	ug/l	J
100-41-4	Ethylbenzene	18.6	5.0	1.0	ug/l	
1330-20-7	Xylene (total)	11.3	10	2.3	ug/l	
1634-04-4	Methyl Tert Butyl Ether	83.8	5.0	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	10	1.1	ug/l	
637-92-3	Ethyl Tert Butyl Ether	3.7	10	1.1	ug/l	J
994-05-8	Tert-Amyl Methyl Ether	ND	10	2.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	50	12	ug/l	
	TPH-GRO (C6-C10)	4830	250	130	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW-2		<b>Date Sampled:</b> 03/26/13
<b>Lab Sample ID:</b> C26859-2		<b>Date Received:</b> 03/26/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8015B M SW846 3510C		
<b>Project:</b> T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG41889.D	1	03/27/13	AG	03/26/13	OP7716	GGG1117
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

### TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	1.59	0.094	0.024	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	89%		32-124%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> MW-2		
<b>Lab Sample ID:</b> C26859-2FA		<b>Date Sampled:</b> 03/26/13
<b>Matrix:</b> AQ - Groundwater Filtered		<b>Date Received:</b> 03/26/13
		<b>Percent Solids:</b> n/a
<b>Project:</b> T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA		

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 10	10	ug/l	1	04/11/13	04/15/13 RS	SW846 6010B <sup>1</sup>	SW3010A <sup>2</sup>

(1) Instrument QC Batch: MA3106

(2) Prep QC Batch: MP6066

---

RL = Reporting Limit

# Report of Analysis

<b>Client Sample ID:</b> MW-3		
<b>Lab Sample ID:</b> C26859-3		<b>Date Sampled:</b> 03/26/13
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 03/26/13
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V12011.D	1	04/03/13	TN	n/a	n/a	VV491
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

**Purgeable Aromatics, MTBE**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.6	1.0	0.20	ug/l	
	TPH-GRO (C6-C10)	26.0	50	25	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

3.5  
3

<b>Client Sample ID:</b> MW-3	
<b>Lab Sample ID:</b> C26859-3	<b>Date Sampled:</b> 03/26/13
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/26/13
<b>Method:</b> SW846 8015B M SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b> T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG41890.D	1	03/27/13	AG	03/26/13	OP7716	GGG1117
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

**TPH Extractable**

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	0.0711	0.096	0.024	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	75%		32-124%

---

ND = Not detected      MDL - Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> MW-4		
<b>Lab Sample ID:</b> C26859-4		<b>Date Sampled:</b> 03/26/13
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 03/26/13
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V12012.D	1	04/03/13	TN	n/a	n/a	VV491
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

**Purgeable Aromatics, MTBE**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW-4	
<b>Lab Sample ID:</b> C26859-4	<b>Date Sampled:</b> 03/26/13
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/26/13
<b>Method:</b> SW846 8015B M SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b> T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG41891.D	1	03/27/13	AG	03/26/13	OP7716	GGG1117
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

**TPH Extractable**

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	0.0388	0.094	0.024	mg/l	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
630-01-3	Hexacosane	98%		32-124%		

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Misc. Forms

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Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody





## Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** C26859      **Client:** SIERRA WEST CONSULTANTS      **Project:** F&M AUTO - Oakland, CA  
**Date / Time Received:** 3/26/2013      **Delivery Method:** Accutest Courier      **Airbill #s:**

**Cooler Temps (Initial/Adjusted):** #1: (3.7/2.7); #2: (5.6/4.6); 0

<u>Cooler Security</u>	<u>Y or N</u>				<u>Y or N</u>	
1. Custody Seals Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Custody Seals Intact:	<input type="checkbox"/>	<input type="checkbox"/>	4. Smp'l Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

<u>Cooler Temperature</u>	<u>Y or N</u>	
1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	2	

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
4. VOCs headspace free:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	Intact		

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

**Comments** Per client request, only TPH gas, TPHDiesel, BTEX, MTBE logged in on all samples. Rest all the analyses put ON HOLD, 03/26/13

"Dissolved Metals" - Lab Filtered & Preserved

4.1  
4

## GC/MS Volatiles

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5

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary

**Job Number:** C26859  
**Account:** SWCICAFO Sierra West Consultants, Inc.  
**Project:** T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV491-MB	V12008.D	1	04/03/13	TN	n/a	n/a	VV491

The QC reported here applies to the following samples:

Method: SW846 8260B

C26859-2, C26859-3, C26859-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	96%	70-130%
2037-26-5	Toluene-D8	103%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

5.1.1  
5

## Method Blank Summary

**Job Number:** C26859

**Account:** SWCICAFO Sierra West Consultants, Inc.

**Project:** T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV493-MB	V12063.D	1	04/04/13	TN	n/a	n/a	VV493

The QC reported here applies to the following samples:

Method: SW846 8260B

C26859-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	90% 70-130%
2037-26-5	Toluene-D8	105% 70-130%
460-00-4	4-Bromofluorobenzene	99% 70-130%

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** C26859  
**Account:** SWCICAFO Sierra West Consultants, Inc.  
**Project:** T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV491-BS	V12005.D	1	04/02/13	TN	n/a	n/a	VV491
VV491-BSD	V12006.D	1	04/03/13	TN	n/a	n/a	VV491

The QC reported here applies to the following samples: Method: SW846 8260B

C26859-2, C26859-3, C26859-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	20.1	101	20.2	101	0	77-122/25
108-20-3	Di-Isopropyl ether	20	20.0	100	20.4	102	2	68-129/17
100-41-4	Ethylbenzene	20	20.5	103	20.6	103	0	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	21.3	107	21.9	110	3	75-134/17
1634-04-4	Methyl Tert Butyl Ether	20	18.8	94	19.4	97	3	73-132/17
994-05-8	Tert-Amyl Methyl Ether	20	19.4	97	20.1	101	4	73-133/17
75-65-0	Tert-Butyl Alcohol	100	75.6	76	80.3	80	6	60-149/26
108-88-3	Toluene	20	20.5	103	20.5	103	0	75-122/17
1330-20-7	Xylene (total)	60	59.0	98	58.7	98	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	103%	104%	70-130%
2037-26-5	Toluene-D8	103%	104%	70-130%
460-00-4	4-Bromofluorobenzene	100%	102%	70-130%

\* = Outside of Control Limits.

5.2.1  
5

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** C26859

**Account:** SWCICAFO Sierra West Consultants, Inc.

**Project:** T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV493-BS	V12060.D	1	04/04/13	TN	n/a	n/a	VV493
VV493-BSD	V12061.D	1	04/04/13	TN	n/a	n/a	VV493

The QC reported here applies to the following samples:

Method: SW846 8260B

C26859-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	21.0	105	20.8	104	1	77-122/25
108-20-3	Di-Isopropyl ether	20	20.7	104	20.4	102	1	68-129/17
100-41-4	Ethylbenzene	20	21.4	107	21.2	106	1	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	21.8	109	21.4	107	2	75-134/17
1634-04-4	Methyl Tert Butyl Ether	20	18.9	95	18.6	93	2	73-132/17
994-05-8	Tert-Amyl Methyl Ether	20	19.9	100	19.4	97	3	73-133/17
75-65-0	Tert-Butyl Alcohol	100	69.5	70	73.8	74	6	60-149/26
108-88-3	Toluene	20	21.4	107	21.3	107	0	75-122/17
1330-20-7	Xylene (total)	60	61.5	103	61.5	103	0	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	99%	98%	70-130%
2037-26-5	Toluene-D8	101%	103%	70-130%
460-00-4	4-Bromofluorobenzene	99%	98%	70-130%

\* = Outside of Control Limits.

5.2.2  
5

# Laboratory Control Sample Summary

**Job Number:** C26859  
**Account:** SWCICAFO Sierra West Consultants, Inc.  
**Project:** T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV491-LCS	V12007.D	1	04/03/13	TN	n/a	n/a	VV491

The QC reported here applies to the following samples:

Method: SW846 8260B

C26859-2, C26859-3, C26859-4

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
	TPH-GRO (C6-C10)	125	107	86	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	89%	70-130%
2037-26-5	Toluene-D8	89%	70-130%
460-00-4	4-Bromofluorobenzene	86%	70-130%

\* = Outside of Control Limits.



# Laboratory Control Sample Summary

**Job Number:** C26859  
**Account:** SWCICAFO Sierra West Consultants, Inc.  
**Project:** T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV493-LCS	V12062.D	1	04/04/13	TN	n/a	n/a	VV493

The QC reported here applies to the following samples:

Method: SW846 8260B

C26859-1

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits
	TPH-GRO (C6-C10)	125	132	106	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	70-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

\* = Outside of Control Limits.

5.3.2  
 5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** C26859  
**Account:** SWCICAFO Sierra West Consultants, Inc.  
**Project:** T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C26859-1MS	V12024.D	50	04/03/13	TN	n/a	n/a	VV491
C26859-1MSD	V12025.D	50	04/03/13	TN	n/a	n/a	VV491
C26859-1 <sup>a</sup>	V12009.D	50	04/03/13	TN	n/a	n/a	VV491

The QC reported here applies to the following samples:

Method: SW846 8260B

C26859-2, C26859-3, C26859-4

CAS No.	Compound	C26859-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	755	1000	1690	94	1700	95	1	77-122/16
108-20-3	Di-Isopropyl ether	ND	1000	1010	101	1010	101	0	68-129/17
100-41-4	Ethylbenzene	28.6	J 1000	1070	104	1070	104	0	76-126/17
637-92-3	Ethyl Tert Butyl Ether	ND	1000	1080	108	1070	107	1	75-134/17
1634-04-4	Methyl Tert Butyl Ether	155	1000	1100	95	1080	93	2	73-132/17
994-05-8	Tert-Amyl Methyl Ether	ND	1000	984	98	975	98	1	73-133/17
75-65-0	Tert-Butyl Alcohol	ND	5000	4090	82	3480	70	16	60-149/26
108-88-3	Toluene	104	1000	1140	104	1150	105	1	75-122/17
1330-20-7	Xylene (total)	54.1	J 3000	3060	100	3060	100	0	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C26859-1	Limits
1868-53-7	Dibromofluoromethane	103%	104%		70-130%
2037-26-5	Toluene-D8	105%	105%		70-130%
460-00-4	4-Bromofluorobenzene	103%	101%		70-130%

(a) Sample used for QC purposes only.

\* = Outside of Control Limits.

5.4.1  
**5**

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** C26859  
**Account:** SWCICAFO Sierra West Consultants, Inc.  
**Project:** T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C26859-1MS	V12079.D	10	04/04/13	TN	n/a	n/a	VV493
C26859-1MSD	V12080.D	10	04/04/13	TN	n/a	n/a	VV493
C26859-1	V12066.D	10	04/04/13	TN	n/a	n/a	VV493

The QC reported here applies to the following samples:

Method: SW846 8260B

C26859-1

CAS No.	Compound	C26859-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	694	200	877	92	910	108	4	77-122/16
108-20-3	Di-Isopropyl ether	ND	200	198	99	207	104	4	68-129/17
100-41-4	Ethylbenzene	27.4	200	235	104	233	103	1	76-126/17
637-92-3	Ethyl Tert Butyl Ether	ND	200	209	105	215	108	3	75-134/17
1634-04-4	Methyl Tert Butyl Ether	146	200	328	91	342	98	4	73-132/17
994-05-8	Tert-Amyl Methyl Ether	ND	200	190	95	196	98	3	73-133/17
75-65-0	Tert-Butyl Alcohol	ND	1000	720	72	759	76	5	60-149/26
108-88-3	Toluene	98.8	200	303	102	303	102	0	75-122/17
1330-20-7	Xylene (total)	51.9	600	646	99	638	98	1	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C26859-1	Limits
1868-53-7	Dibromofluoromethane	99%	101%	98%	70-130%
2037-26-5	Toluene-D8	102%	102%	102%	70-130%
460-00-4	4-Bromofluorobenzene	99%	99%	98%	70-130%

\* = Outside of Control Limits.

## GC Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** C26859  
**Account:** SWCICAFO Sierra West Consultants, Inc.  
**Project:** T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7716-MB	GG41929.D	1	03/28/13	AG	03/26/13	OP7716	GGG1119

The QC reported here applies to the following samples:

Method: SW846 8015B M

C26859-1, C26859-2, C26859-3, C26859-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.10	0.025	mg/l	

CAS No.	Surrogate Recoveries	Limits
630-01-3	Hexacosane	91% 32-124%

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** C26859  
**Account:** SWCICAFO Sierra West Consultants, Inc.  
**Project:** T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP7716-BS	GG41906.D	1	03/27/13	AG	03/26/13	OP7716	GGG1117
OP7716-BSD	GG41907.D	1	03/27/13	AG	03/26/13	OP7716	GGG1117

The QC reported here applies to the following samples:

Method: SW846 8015B M

C26859-1, C26859-2, C26859-3, C26859-4

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	1	0.849	85	0.866	87	2	38-115/22

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	92%	94%	32-124%

\* = Outside of Control Limits.

## Metals Analysis

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: C26859  
Account: SWCICAFO - Sierra West Consultants, Inc.  
Project: T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

QC Batch ID: MP6066  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 04/11/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	13	8.5		
Antimony	6.0	.7	.51		
Arsenic	10	.7	.65		
Barium	200	.4	.35		
Beryllium	5.0	.2	.4		
Bismuth	20		2.9		
Boron	100	.9	.64		
Cadmium	2.0	.2	.15		
Calcium	5000	7.1	12		
Chromium	10	.3	.41		
Cobalt	5.0	.2	.3		
Copper	10	1.2	3		
Iron	200	6.4	12		
Lead	10	.7	.85	-0.30	<10
Lithium	50		2		
Magnesium	5000	27	36		
Manganese	15	.1	1.3		
Molybdenum	20	.2	.22		
Nickel	5.0	.2	.12		
Potassium	10000	18	44		
Selenium	10	1.8	2.2		
Silicon	100	1.2	6.9		
Silver	5.0	.3	.47		
Sodium	10000	15	13		
Strontium	10	.2	.24		
Thallium	10	.5	.54		
Tin	50	.2	.7		
Titanium	10	.4	.34		
Vanadium	10	.3	.3		
Zinc	20	.3	4.2		

Associated samples MP6066: C26859-1FA, C26859-2FA

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C26859  
 Account: SWCICAFO - Sierra West Consultants, Inc.  
 Project: T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

QC Batch ID: MP6066  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 04/11/13

Metal	C27099-1F Original MS	SpikeLot MPIR4	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Bismuth				
Boron	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	0.0	577	500	115.4 75-125
Lithium	anr			
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silicon				
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP6066: C26859-1FA, C26859-2FA

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

7.1.2  
 7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C26859  
 Account: SWCICAFO - Sierra West Consultants, Inc.  
 Project: T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

QC Batch ID: MP6066  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 04/11/13

Metal	C27099-1F Original MSD	SpikeLot MPIR4	% Rec	MSD RPD	QC Limit
Aluminum	anr				
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Bismuth					
Boron	anr				
Cadmium	anr				
Calcium	anr				
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	anr				
Lead	0.0	581	500	116.2	0.7 20
Lithium	anr				
Magnesium	anr				
Manganese	anr				
Molybdenum	anr				
Nickel	anr				
Potassium	anr				
Selenium	anr				
Silicon					
Silver	anr				
Sodium	anr				
Strontium					
Thallium	anr				
Tin					
Titanium					
Vanadium	anr				
Zinc	anr				

Associated samples MP6066: C26859-1FA, C26859-2FA

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

7.1.2  
7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C26859  
 Account: SWCICAFO - Sierra West Consultants, Inc.  
 Project: T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

QC Batch ID: MP6066  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 04/11/13

Metal	BSP Result	Spikelot MPIR4	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Bismuth				
Boron	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	553	500	110.6	80-120
Lithium	anr			
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silicon				
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP6066: C26859-1FA, C26859-2FA

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

7.1.3  
7

SERIAL DILUTION RESULTS SUMMARY

Login Number: C26859  
 Account: SWCICAFO - Sierra West Consultants, Inc.  
 Project: T0000003190-F&M Auto Service., 1839 Foothill Blvd, Oakland, CA

QC Batch ID: MP6066  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 04/11/13

Metal	C27099-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Bismuth				
Boron	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silicon				
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP6066: C26859-1FA, C26859-2FA

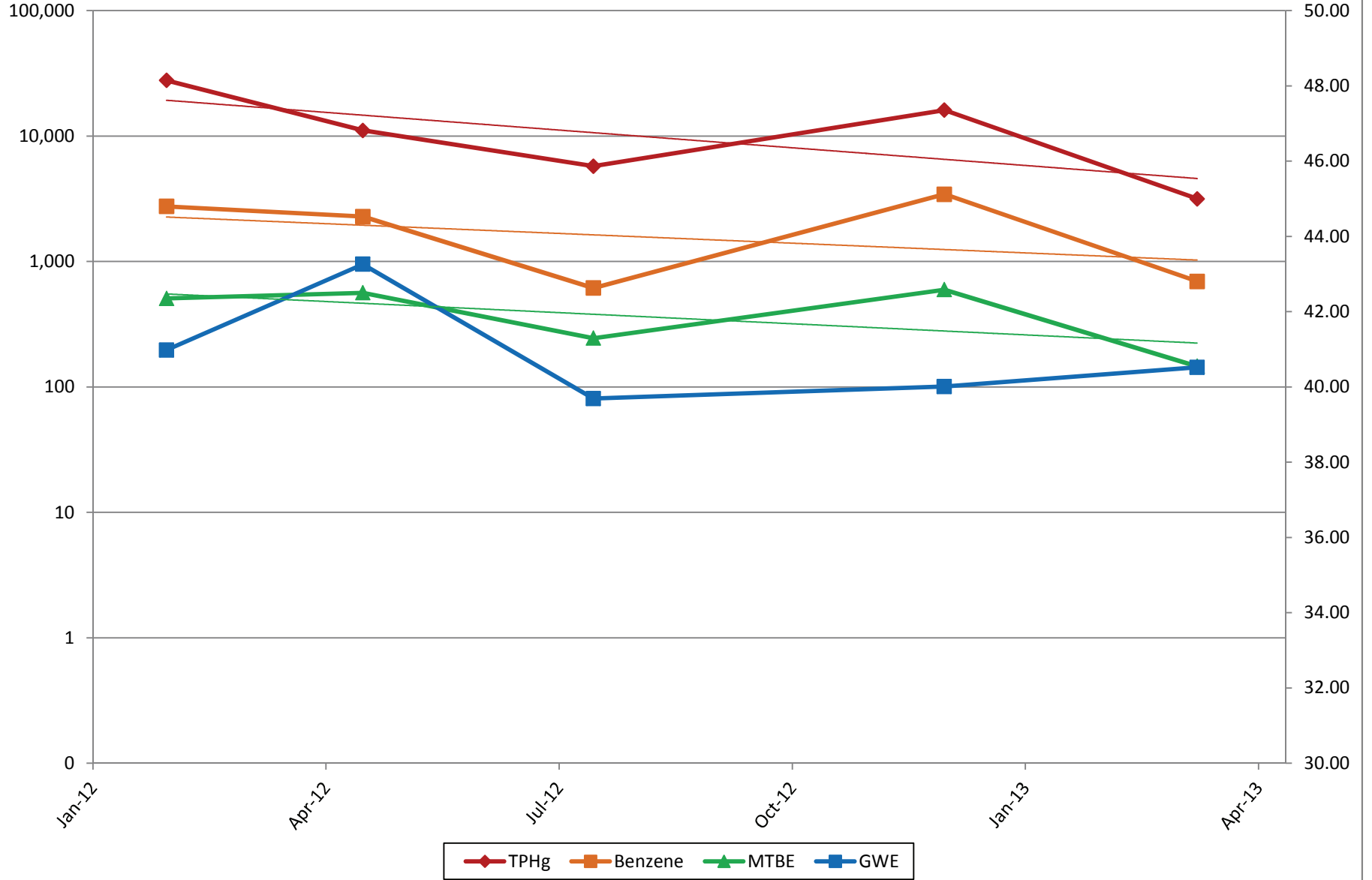
Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

7.1.4  
7

**Attachment C –  
Groundwater Concentration Trend Plots**

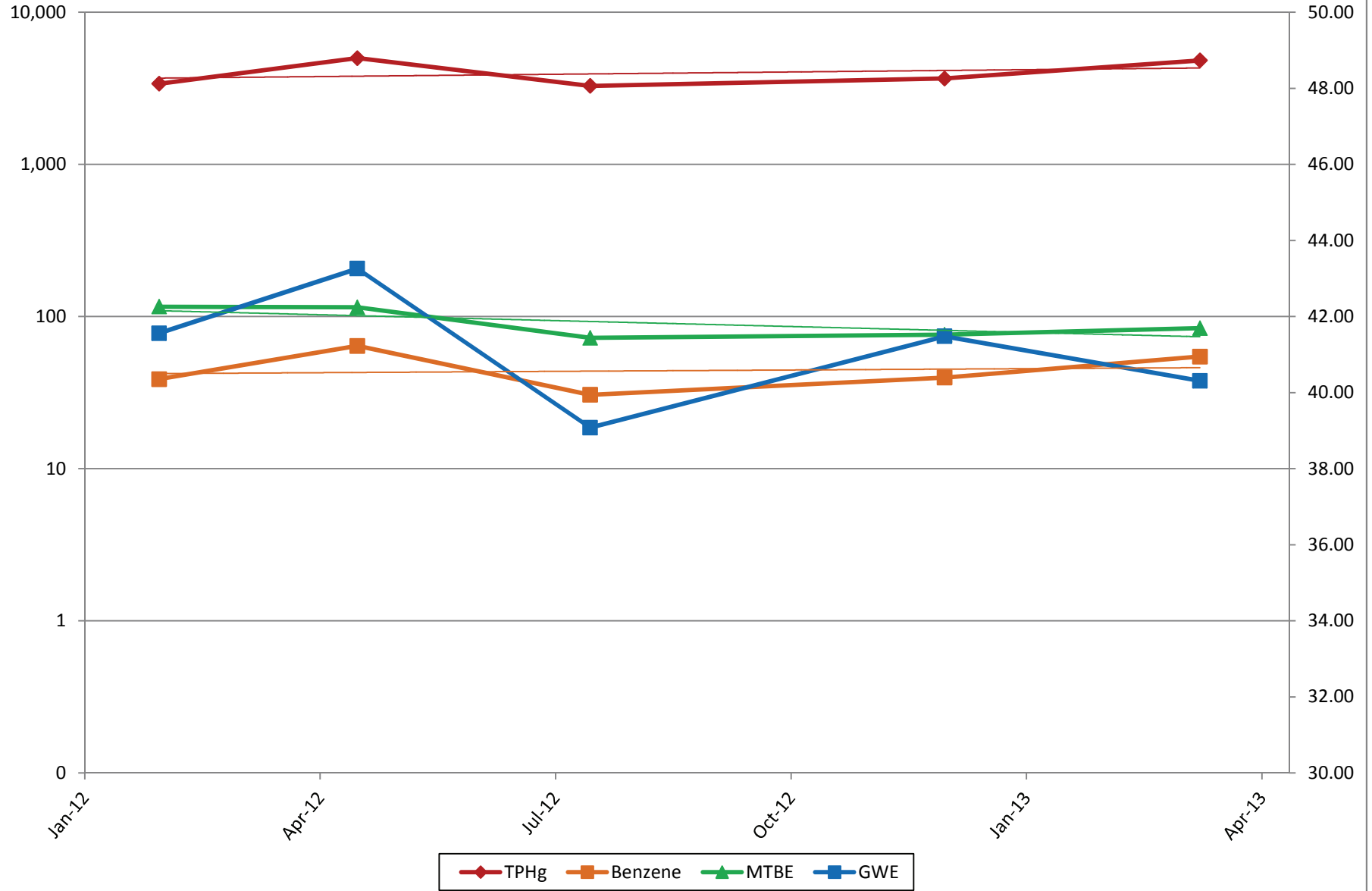
# Constituent Concentrations and Groundwater Elevation vs. Time in MW-1

Former F&M Auto Service UST Site  
1839 Foothill Boulevard, Oakland, California



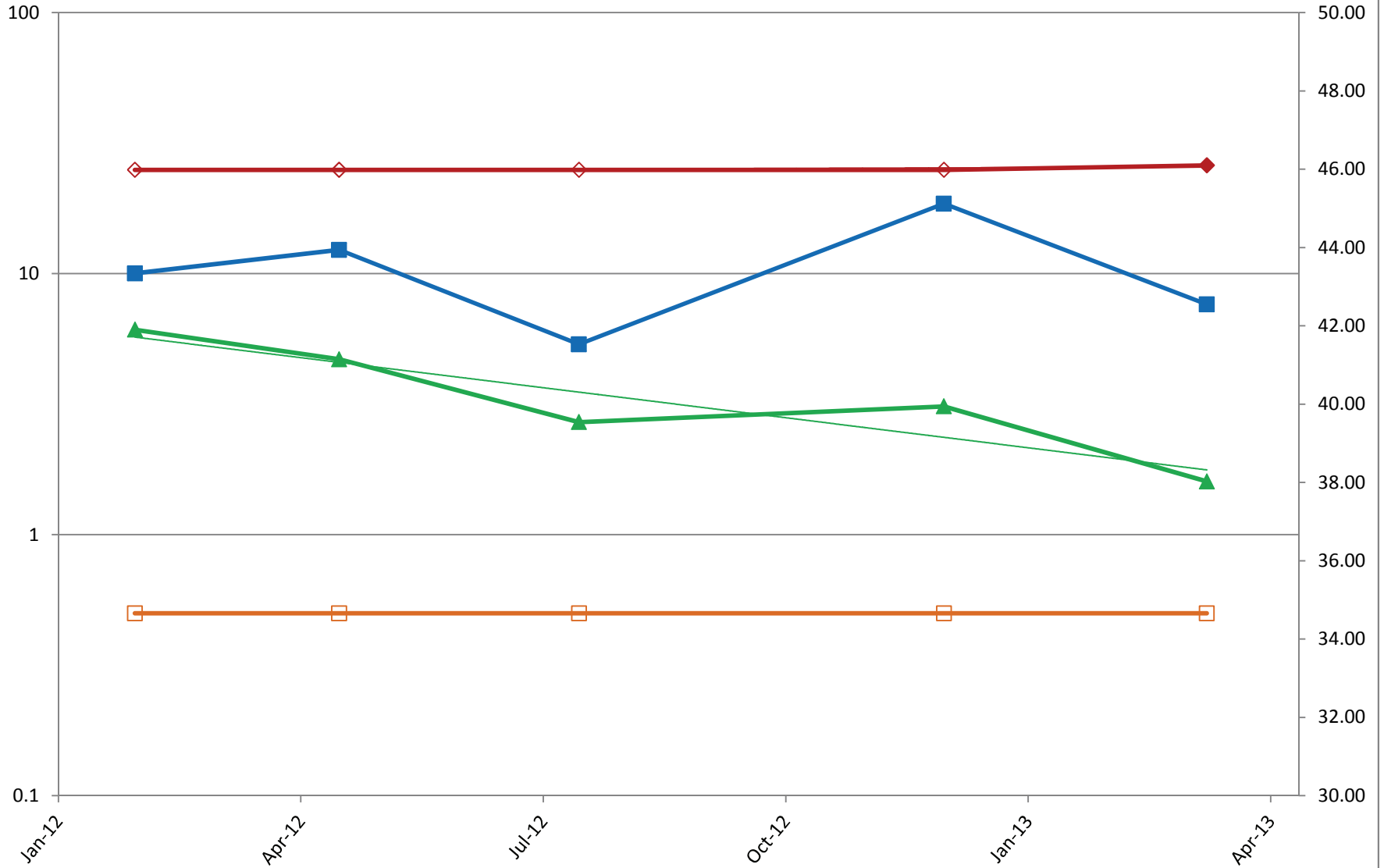
# Constituent Concentrations and Groundwater Elevation vs. Time in MW-2

Former F&M Auto Service UST Site  
1839 Foothill Boulevard, Oakland, California



# Constituent Concentrations and Groundwater Elevation vs. Time in MW-3

Former F&M Auto Service UST Site  
1839 Foothill Boulevard, Oakland, California



Note: Non-detect concentrations plotted with an open symbol at half their detection limit

