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July 27, 2015

Alameda County Health Care Services Agency  
Environmental Health Services  
Environmental Protection  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**RECEIVED**

*By Alameda County Environmental Health 11:17 am, Jul 28, 2015*

**Re:** **Unocal No. 6129 (351639)**  
**3420 35th Avenue, Oakland, California**  
**ACEH Fuel Leak Case No. RO0000058**  
**GeoTracker Global ID T0600101465**

I have reviewed the attached report dated July 27, 2015.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local agency/Regional Board guidelines have been followed. This report was prepared by AECOM, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13257(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Nicole M. Arceneaux  
Project Manager

Attachment: First Semi-Annual 2015 Groundwater Monitoring Report by AECOM

July 27, 2015

Mr. Keith Nowell  
Alameda County Health Care Services Agency  
Environmental Health Services  
Environmental Protection  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577  
(via internet upload)

**Subject:** First Semi-Annual 2015 Groundwater Monitoring Report  
Unocal No. 6129 (351639)  
3420 35th Avenue, Oakland, California  
Fuel Leak Case No. RO0000058  
GeoTracker Global ID T0600101465

Dear Mr. Nowell,

On behalf of Chevron Environmental Management Company's (EMC's) affiliate, Union Oil Company of California ("Union Oil"), AECOM has prepared the first semi-annual 2015 groundwater monitoring report for the site located at 3420 35th Avenue in Oakland, California (site) (**Figure 1**). The locations of former and current site features are illustrated on **Figure 2**. This groundwater monitoring event was conducted to evaluate the distribution of petroleum hydrocarbon constituents in groundwater beneath the site. Groundwater sampling was performed by Gettler-Ryan Inc. (Gettler-Ryan) of Dublin, California. This report summarizes results of the sampling event conducted on June 17, 2015.

### **Groundwater Monitoring Field Data**

On June 17, 2015, the depth to groundwater was measured in three monitoring wells (MW-1 through MW-3) at the site. Groundwater measurements were converted to groundwater elevations (**Table 1**). The depth to groundwater at the site ranged from 28.75 to 29.70 feet below the top of well casings (159.83 to 161.52 feet above mean sea level). The groundwater flow direction was calculated to the southwest with an average hydraulic gradient of approximately 0.010 feet per foot (**Figure 2**). A copy of the groundwater gauging logs is included in **Attachment A**.

### **Groundwater Sampling and Analytical Results**

On June 17, 2015, groundwater samples were collected from monitoring wells MW-1 through MW-3, after first purging a minimum of three well volumes at each well. Temperature, pH, oxidation reduction potential, dissolved oxygen, and electrical conductivity readings were recorded during purging, and a copy of the purge logs is presented in **Attachment A**.

Laboratory analysis of the groundwater samples was performed by BC Laboratories, Inc. (BC Labs) of Bakersfield, California. The BC Labs analytical report dated June 23, 2015, is included as **Attachment B**. Groundwater samples were analyzed for the following, based on historical trends at each monitoring well:

- Total petroleum hydrocarbons as gasoline (TPH-g) by Luft-GC/MS method (TPH-g is reported as total purgeable petroleum hydrocarbons [TPPH] in laboratory analytical report);
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B; and

- Fuel oxygenates, including Methyl t-butyl ether (MTBE), t-Amyl Methyl ether (TAME), t-Butyl Alcohol (TBA), Diisopropyl ether (DIPE), Ethyl t-butyl ether (ETBE), ethanol, 1,2-Dibromoethane (EDB), and 1,2-Dichloroethane (EDC) by EPA Method 8260B.

Analytical results for the first semi-annual 2015 groundwater monitoring event are consistent with previous reporting periods (**Table 1**, **Table 2**, and **Figure 3**). The following presents a brief summary of the analytical sample results:

- BTEX, ETBE, TAME, EDB, EDC, TBA, and ethanol were not detected in the groundwater samples collected from MW-1, MW-2, and MW-3;
- TPH-g was detected in the groundwater samples collected from MW-1 and MW-3 at 52 µg/L, and 220 micrograms per liter (µg/L), respectively. However, the laboratory flagged MW-3's result as TPH-g is entirely due to MTBE and is not a true TPH-g value;
- MTBE was detected in the groundwater samples collected from MW-1, MW-2, and MW-3 at 100 µg/L, 25 µg/L, and 570 µg/L, respectively;
- DIPE was detected in the groundwater sample collected from MW-2 at 3.1 µg/L. DIPE was not detected in the groundwater samples collected from MW-1 and MW-3.

A summary of historical groundwater analytical data is presented in **Tables 3 and 4**. Groundwater analytical data from the upgradient former Exxon service station are included in **Attachment C**.

Approximately 20 gallons of purge water was generated during the first semi-annual 2015 groundwater monitoring and sampling event. The purge water and decontamination water generated during sampling activities were transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.

### **Conclusions and Recommendations**

Based on the results of historical groundwater monitoring and analytical results of groundwater sampling conducted at the site, AECOM provides the following conclusions and recommendations:

- No BTEX was detected.
- Groundwater levels appear to fluctuate on a seasonal basis with the highest groundwater elevations generally recorded during the first and second quarters and the lowest elevations recorded during the third and fourth quarters.
- MTBE and oxygenate concentrations fluctuate seasonally, but are generally stable or declining.
- TPH-g and MTBE concentrations historically have been higher at the upgradient former Exxon service station at their downgradient wells MW-5, MW-6, and RW-1. The MTBE concentrations for those wells appear to be decreasing.

### **Remarks/Signatures**

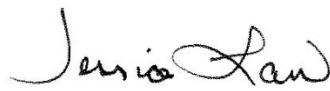
The interpretations in this report represent AECOM's professional opinions and are based, in part, on the information supplied by Gettler-Ryan and BC labs. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

If you have any questions regarding this project, please contact James Harms at (916) 414-5800.

Sincerely,



James Harms  
Project Manager



Jessica Law  
Jessica Law, PG #8840  
Project Geologist  
Stamped: 7/28/2015



ccs: Nicole Arceneaux, EMC (via electronic copy)  
Son Nguyen & Le Pham, Nguyen/Pham Family Trust, property owner (via paper copy)

Enclosures:

### **Tables**

- |         |   |
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| Table 2 | Current Groundwater Analytical Results - Oxygenate Compounds    |
| Table 3 | Historical Groundwater Monitoring Data and Analytical Results   |
| Table 4 | Historical Groundwater Analytical Results - Oxygenate Compounds |

### **Figures**

- |          |   |
|----------|---|
| Figure 1 | Site Location Map                                     |
| Figure 2 | Groundwater Elevation Map, First Semi-Annual 2015     |
| Figure 3 | Groundwater Concentration Map, First Semi-Annual 2015 |

### **Attachments**

- |              |   |
|--------------|---|
| Attachment A | Groundwater Monitoring and Sampling Field Data Sheets |
| Attachment B | BC Labs Analytical Report                             |
| Attachment C | Former Exxon Service Station Data Tables              |

## **Tables**

**Table 1**  
**Current Groundwater Monitoring Data and Analytical Results**  
**Unocal No. 6129 (351639)**  
**3420 35th Avenue**  
**Oakland, California**

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-g ( $\mu\text{g}/\text{L}$ )	B ( $\mu\text{g}/\text{L}$ )	T ( $\mu\text{g}/\text{L}$ )	E ( $\mu\text{g}/\text{L}$ )	X ( $\mu\text{g}/\text{L}$ )	COMMENTS
MW-1	190.79	6/17/2015	29.27	161.52	0	52	<0.50	<0.50	<0.50	<1.0	
MW-2	190.80	6/17/2015	29.70	161.10	0	<50	<0.50	<0.50	<0.50	<1.0	
MW-3	188.58	6/17/2015	28.75	159.83	0	220 <sup>1</sup>	<0.50	<0.50	<0.50	<1.0	

**NOTES:**

\* TOC and GWE are in feet above mean sea level.

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

BTEX compounds analyzed by Environmental Protection Agency Method 8260B

TPH-g analyzed by Luft-GC/MS method

ID = Identification

TOC = Top of casing

ft = Feet

DTW = Depth to water

GWE = Groundwater elevation

$\mu\text{g}/\text{L}$  = Micrograms per liter

LNAPL = Light Non-Aqueous Phase Liquid

<sup>1</sup> = TPH-g does not exhibit a "gasoline" pattern. TPH-g is entirely due to MTBE.

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

TPH-g = Total Petroleum Hydrocarbons as Gasoline

TPH-g reported as TPPH (total purgeable petroleum hydrocarbons) by laboratory

**Table 2**  
**Current Groundwater Analytical Results - Oxygenate Compounds**  
**Unocal No. 6129 (351639)**  
**3420 35th Avenue**  
**Oakland, California**

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1	6/17/2015	100	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-2	6/17/2015	25	<10	<250	3.1	<0.50	<0.50	<0.50	<0.50
MW-3	6/17/2015	570 <sup>1</sup>	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50

**NOTES:**

Oxygenate compounds analyzed by Environmental Protection Agency Method 8260B

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

ID = Identification

µg/L = Micrograms per liter

MTBE = Methyl t-butyl ether

TBA = T-butyl alcohol

DIPE = Diisopropyl ether

ETBE = Ethyl t-butyl ether

TAME = T-amyl methyl ether

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

<sup>1</sup> = Practical Quantitation Limits and Method Detection Limits are raised due to sample dilution

**Table 3**  
**Historical Groundwater Monitoring Data and Analytical Results**  
**Unocal No. 6129 (351639)**  
**3420 35th Avenue**  
**Oakland, California**

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TPH-G	B	T	E	X	COMMENTS
	(ft)		(ft)	(ft)	(ft)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
<b>MW-1</b>	190.79	1/5/1990	32.80	157.99	--	<30	<0.30	<0.30	<0.30	<0.30	
<b>screened</b>	190.79	5/11/1990	31.80	158.99	--	<30	<0.30	7.1	<0.30	<0.30	
<b>24 to 44' bgs</b>	190.79	8/9/1990	32.37	158.42	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	11/14/1990	33.32	157.47	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	2/12/1991	33.02	157.77	--	<30	0.32	<0.30	<0.30	<0.30	
	190.79	5/9/1991	30.95	159.84	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	11/13/2003	--	--	--	180	<1.0	<1.0	<1.0	<2.0	
	190.79	8/27/2004	30.65	160.14	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	11/23/2004	29.35	161.44	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	2/9/2005	26.89	163.90	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/17/2005	26.56	164.23	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	7/27/2005	27.33	163.46	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	12/6/2005	29.59	161.20	0	<50	<0.50	0.93	<0.50	1.80	
	190.79	2/21/2006	28.27	162.52	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	6/8/2006	26.07	164.72	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	9/15/2006	28.86	161.93	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	12/14/2006	29.49	161.30	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	3/28/2007	27.24	163.55	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	6/25/2007	28.30	162.49	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	9/22/2007	30.61	160.18	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	12/14/2007	30.30	160.49	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	3/17/2008	27.22	163.57	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	6/20/2008	30.10	160.69	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	9/11/2008	31.04	159.75	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	11/25/2008	30.88	159.91	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	3/9/2009	27.50	163.29	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/28/2009	28.25	162.54	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	12/11/2009	30.60	160.19	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/7/2010	26.06	164.73	0	67	<0.50	<0.50	<0.50	<1.0	
	190.79	11/1/2010	30.18	160.61	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/27/2011	26.87	163.92	0	110	<0.50	<0.50	<0.50	<1.0	
	190.79	11/23/2011	29.14	161.65	0	1,101	<0.50	<0.50	<0.50	<1.0	

**Table 3**  
**Historical Groundwater Monitoring Data and Analytical Results**  
**Unocal No. 6129 (351639)**  
**3420 35th Avenue**  
**Oakland, California**

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TPH-G	B	T	E	X	COMMENTS
	(ft)		(ft)	(ft)	(ft)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
<b>MW-1 cont.</b>	190.79	5/24/2012	26.58	164.21	0	140	<0.50	<0.50	<0.50	<1.0	
	190.79	10/23/2012	30.51	160.28	0	130	<0.50	<0.50	<0.50	<1.0	
	190.79	5/2/2013	28.30	162.49	0	150 <sup>1</sup>	<0.50	<0.50	<0.50	<1.0	
	190.79	11/13/2013	31.65	159.14	0	240	<0.50	<0.50	<0.50	<1.0	
	190.79	5/12/2014	28.95	161.84	0	98 <sup>1</sup>	<0.50	<0.50	<0.50	<1.0	
	190.79	11/19/2014	31.50	159.29	0	130 <sup>1</sup>	<0.50	<0.50	<0.50	<1.0	
	<b>190.79</b>	<b>6/17/2015</b>	<b>29.27</b>	<b>161.52</b>	<b>0</b>	<b>52</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	
<b>MW-2 screened 24 to 44' bgs</b>	190.80	1/5/1990	33.02	157.78	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	5/11/1990	31.98	158.82	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	8/9/1990	32.45	158.35	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	11/14/1990	33.47	157.33	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	2/12/1991	33.15	157.65	--	<30	<>0.30	0.42	<0.30	0.51	
	190.80	5/9/1991	30.88	159.92	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	11/13/2003	--	--	--	<2,000	<20	<20	<20	<40	
	190.80	8/27/2004	30.28	160.52	0	950	<5.0	<5.0	<5.0	<10	
	190.80	11/23/2004	28.75	162.05	0	53	<0.50	<0.50	<0.50	<1.0	
	190.80	2/9/2005	26.08	164.72	0	<500	<0.50	<0.50	<0.50	<1.0	
	190.80	5/17/2005	24.53	166.27	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.80	7/27/2005	27.51	163.29	0	<500	<5.0	<5.0	<5.0	<10	
	190.80	12/6/2005	29.13	161.67	0	340	<0.50	<0.50	<0.50	<1.0	
	190.80	2/21/2006	29.23	161.57	0	190	<0.50	<0.50	<0.50	<1.0	
	190.80	6/8/2006	25.76	165.04	0	<500	<5.0	<5.0	<5.0	<10	
	190.80	9/15/2006	29.17	161.63	0	<500	<5.0	<5.0	<5.0	<5.0	
	190.80	12/14/2006	29.11	161.69	0	520	<0.50	<0.50	<0.50	<0.50	
	190.80	3/28/2007	26.68	164.12	0	290	<0.50	<0.50	<0.50	<0.50	
	190.80	6/25/2007	25.91	164.89	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.80	9/22/2007	30.18	160.62	0	400	<0.50	<0.50	<0.50	<0.50	
	190.80	12/14/2007	29.96	160.84	0	400	<0.50	<0.50	<0.50	<1.0	
	190.80	3/17/2008	26.74	164.06	0	570	<5.0	<5.0	<5.0	<10	
	190.80	6/20/2008	29.78	161.02	0	580	<0.50	<0.50	<0.50	<1.0	
	190.80	9/11/2008	30.62	160.18	0	220	<0.50	<0.50	<0.50	<1.0	

**Table 3**  
**Historical Groundwater Monitoring Data and Analytical Results**  
**Unocal No. 6129 (351639)**  
**3420 35th Avenue**  
**Oakland, California**

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TPH-G	B	T	E	X	COMMENTS
	(ft)		(ft)	(ft)	(ft)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
<b>MW-2 cont.</b>	190.80	11/25/2008	30.48	160.32	0	500	<0.50	<0.50	<0.50	<1.0	
	190.80	3/9/2009	25.75	165.05	0	910	<5.0	<5.0	<5.0	<10	
	190.80	5/28/2009	27.71	163.09	0	460	<0.50	<0.50	<0.50	<1.0	
	190.80	12/11/2009	29.80	161.00	0	640	<5.0	<5.0	<5.0	<10	
	190.80	5/7/2010	25.11	165.69	0	600	<1.0	<1.0	<1.0	<2.0	
	190.80	11/1/2010	29.90	160.90	0	140	<0.50	<0.50	<0.50	<1.0	
	190.80	5/27/2011	26.44	164.36	0	560	<0.50	<0.50	<0.50	<1.0	
	190.80	11/23/2011	28.53	162.27	0	830	<0.50	<0.50	<0.50	<1.0	
	190.80	5/24/2012	25.97	164.83	0	1,000	<0.50	<0.50	<0.50	<1.0	
	190.80	10/23/2012	30.14	160.66	0	750	<0.50	<0.50	<0.50	<1.0	
	190.80	5/2/2013	27.14	163.66	0	290 <sup>1</sup>	<0.50	<0.50	<0.50	<1.0	
	190.80	11/13/2013	31.37	159.43	0	1,200	<0.50	<0.50	<0.50	<1.0	
	190.80	5/12/2014	28.49	162.31	0	260	<0.50	<0.50	<0.50	<1.0	
	190.80	11/19/2014	31.46	159.34	0	430 <sup>1</sup>	<0.50	<0.50	<0.50	<1.0	
	<b>190.80</b>	<b>6/17/2015</b>	<b>29.70</b>	<b>161.10</b>	0	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	
<b>MW-3</b>	188.58	1/5/1990	31.88	156.70	--	<30	<0.30	<0.30	<0.30	<0.30	
<b>screened</b>	188.58	5/11/1990	31.25	157.33	--	<30	<0.30	<0.30	<0.30	<0.30	
<b>23 to 43' bgs</b>	188.58	8/9/1990	31.53	157.05	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	11/14/1990	33.30	155.28	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	2/12/1991	32.05	156.53	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	5/9/1991	30.37	158.21	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	11/13/2003	--	--	--	2,600	<20	<20	<20	<40	
	188.58	8/27/2004	29.61	158.97	0	1,700	<10	<10	<10	<20	
	188.58	11/23/2004	28.48	160.10	0	1,500	<10	<10	<10	<20	
	188.58	2/9/2005	26.45	162.13	0	<1,000	<0.50	<0.50	<0.50	<1.0	
	188.58	5/17/2005	25.61	162.97	0	<1,000	<0.50	<0.50	<0.50	<1.0	
	188.58	7/27/2005	27.35	161.23	0	<1,000	<10	<10	<10	<20	
	188.58	12/6/2005	28.78	159.80	0	430	<0.50	1.6	<0.50	3.6	
	188.58	2/21/2006	28.91	159.67	0	420	<0.50	<0.50	<0.50	<1.0	
	188.58	6/8/2006	25.97	162.61	0	<1,200	<12	<12	<12	<25	
	188.58	9/15/2006	28.73	159.85	0	<1,200	<12	<12	<12	<12	

**Table 3**  
**Historical Groundwater Monitoring Data and Analytical Results**  
**Unocal No. 6129 (351639)**  
**3420 35th Avenue**  
**Oakland, California**

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TPH-G	B	T	E	X	COMMENTS
	(ft)		(ft)	(ft)	(ft)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
<b>MW-3 cont.</b>	188.58	12/14/2006	28.62	159.96	0	<1,000	<10	<10	<10	<10	
	188.58	3/28/2007	26.69	161.89	0	500	<1.0	<1.0	<1.0	<1.0	
	188.58	6/25/2007	26.74	161.84	0	270	<0.50	<0.50	<0.50	<0.50	
	188.58	9/22/2007	29.57	159.01	0	500	<0.50	<0.50	<0.50	<0.50	
	188.58	12/14/2007	29.30	159.28	0	270	<0.50	<0.50	<0.50	<1.0	
	188.58	3/17/2008	26.82	161.76	0	220	<0.50	<0.50	<0.50	<1.0	
	188.58	6/20/2008	29.10	159.48	0	490	<0.50	<0.50	<0.50	<1.0	
	188.58	9/11/2008	29.89	158.69	0	630	<5.0	<5.0	<5.0	<10	
	188.58	11/25/2008	29.74	158.84	0	380	<0.50	<0.50	<0.50	<1.0	
	188.58	3/9/2009	25.56	163.02	0	310	<0.50	<0.50	<0.50	<1.0	
	188.58	5/28/2009	27.55	161.03	0	410	<0.50	<0.50	<0.50	<1.0	
	188.58	12/11/2009	29.10	159.48	0	220	<0.50	<0.50	<0.50	<1.0	
	188.58	5/7/2010	25.72	162.86	0	360	<0.50	<0.50	<0.50	<1.0	
	188.58	11/1/2010	29.29	159.29	0	120	<0.50	<0.50	<0.50	<1.0	
	188.58	5/27/2011	26.53	162.05	0	340	<0.50	<0.50	<0.50	<1.0	
	188.58	5/24/2012	25.95	162.63	0	660	<0.50	<0.50	<0.50	<1.0	
	188.58	10/23/2012	29.39	159.19	0	480	<0.50	<0.50	<0.50	<1.0	
	188.58	5/2/2013	26.98	161.60	0	130 <sup>1</sup>	<0.50	<0.50	<0.50	<1.0	
	188.58	11/13/2013	30.28	158.30	0	110	<0.50	<0.50	<0.50	<1.0	
	188.58	5/12/2014	27.93	160.65	0	98 <sup>1</sup>	<0.50	<0.50	<0.50	<1.0	
	188.58	11/19/2014	30.22	158.36	0	180 <sup>1</sup>	<0.50	<0.50	<0.50	<1.0	
	<b>188.58</b>	<b>6/17/2015</b>	<b>28.75</b>	<b>159.83</b>	<b>0</b>	<b>220<sup>1</sup></b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	

**Table 3**  
**Historical Groundwater Monitoring Data and Analytical Results**  
**Unocal No. 6129 (351639)**  
**3420 35th Avenue**  
**Oakland, California**

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TPH-G	B	T	E	X	COMMENTS
	(ft)		(ft)	(ft)	(ft)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	

**NOTES:**

\* TOC and GWE are in feet above mean sea level.

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

BTEX compounds analyzed by Environmental Protection Agency Method 8260B

TPH-g analyzed by Luft-GC/MS method

ID = Identification

TOC = Top of casing

ft = Feet

DTW = Depth to water

GWE = Groundwater elevation

-- = Not available/Not analyzed

µg/L = Micrograms per liter

LNAPL = Light Non-Aqueous Phase Liquid

bgs = below ground surface

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

TPH-g = Total Petroleum Hydrocarbons as Gasoline

<sup>1</sup> = TPH-g does not exhibit a "gasoline" pattern. TPH-g is entirely due to MTBE.

TPH-g reported as TPPH (total purgeable petroleum hydrocarbons) on some laboratory reports

**Table 4**  
**Historical Groundwater Analytical Results - Oxygenate Compounds**  
**Unocal No. 6129 (351639)**  
**3420 35th Avenue**  
**Oakland, California**

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
<b>MW-1</b>	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	240	<200	<1,000	<4.0	<4.0	<4.0	<4.0	<4.0
	8/27/2004	<0.50	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50
	11/23/2004	<0.50	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50
	2/9/2005	9.3	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	5/17/2005	1.9	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	7/27/2005	<0.50	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/6/2005	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	2/21/2006	2.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/8/2006	11	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/15/2006	1.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2006	3.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/28/2007	0.64	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/25/2007	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/22/2007	4.10	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2007	0.65	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/17/2008	14	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/20/2008	11	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/11/2008	1.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/25/2008	5.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/9/2009	25	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/28/2009	17	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/11/2009	18	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/7/2010	64	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/1/2010	92	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50

**Table 4**  
**Historical Groundwater Analytical Results - Oxygenate Compounds**  
**Unocal No. 6129 (351639)**  
**3420 35th Avenue**  
**Oakland, California**

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
<b>MW-1 cont.</b>	5/27/2011	220	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/23/2011	150	41	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/24/2012	190	66	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	10/23/2012	140	47	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/2/2013	270	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/13/2013	270	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/12/2014	170 <sup>1</sup>	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/19/2014	180 <sup>1</sup>	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/17/2015	100	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
<b>MW-2</b>	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	2,100	<4,000	<20,000	<80	<80	<80	<80	<80
	8/27/2004	1,400	<5.0	<500	<5.0	24	<5.0	<5.0	<5.0
	11/23/2004	4.2	<5.0	<50	<0.50	18	<0.50	<0.50	<0.50
	2/9/2005	400	<5.0	<500	<5.0	19	<5.0	<5.0	<5.0
	5/17/2005	330	<5.0	<50	<0.50	12	<0.50	<0.50	<0.50
	7/27/2005	580	140	<500	<5.0	16	<5.0	<5.0	<5.0
	12/6/2005	780	61	<250	<0.50	15	<0.50	<0.50	<0.50
	2/21/2006	340	<10	<250	<0.50	18	<0.50	<0.50	<0.50
	6/8/2006	440	<100	<2,500	<5.0	14	<5.0	<5.0	<5.0
	9/15/2006	570	<100	<2,500	<5.0	17	<5.0	<5.0	<5.0
	12/14/2006	770	27	<250	<0.50	20	<0.50	<0.50	<0.50
	3/28/2007	460	260	<250	<0.50	23	<0.50	<0.50	<0.50
	6/25/2007	1.2	<10	<250	<0.50	23	<0.50	<0.50	<0.50
	9/22/2007	530	<10	<250	<0.50	35	<0.50	<0.50	<0.50

**Table 4**  
**Historical Groundwater Analytical Results - Oxygenate Compounds**  
**Unocal No. 6129 (351639)**  
**3420 35th Avenue**  
**Oakland, California**

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBEE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
<b>MW-2 cont.</b>	12/14/2007	930	48	<250	<0.50	24	<0.50	<0.50	<0.50
	3/17/2008	630	<100	<2,500	<5.0	18	<5.0	<5.0	<5.0
	6/20/2008	1,200	<10	<250	<0.50	16	<0.50	<0.50	<0.50
	9/11/2008	29	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/25/2008	1,500	<10	<250	<0.50	19	<0.50	<0.50	<0.50
	3/9/2009	1,400	<100	<2,500	<5.0	15	<5.0	<5.0	<5.0
	5/28/2009	740	<10	<250	<0.50	20	<0.50	<0.50	<0.50
	12/11/2009	1,300	<100	<2,500	<5.0	19	<5.0	<5.0	<5.0
	5/7/2010	940	<20	<500	<1.0	14	<1.0	<1.0	<1.0
	11/1/2010	730	<10	<250	<0.50	28	<0.50	<0.50	<0.50
	5/27/2011	1,100	210	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/23/2011	1,500	400	<250	<0.50	9.00	<0.50	<0.50	<0.50
	5/24/2012	1,200	430	<250	<0.50	8.8	<0.50	<0.50	<0.50
	10/23/2012	1,300	420	<250	<0.50	14	<0.50	<0.50	<0.50
	5/2/2013	460	<10	<250	6.2	<0.50	<0.50	<0.50	<0.50
	11/13/2013	1,300	<10	<250	17	<0.50	<0.50	<0.50	<0.50
	5/12/2014	510 <sup>1</sup>	44	<250	12	<0.50	<0.50	<0.50	<0.50
	11/19/2014	980 <sup>1</sup>	<10	<250	31	<0.50	<0.50	<0.50	<0.50
	<b>6/17/2015</b>	<b>25</b>	<b>&lt;10</b>	<b>&lt;250</b>	<b>3.1</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>
<b>MW-3</b>	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	3,700	<4,000	<20,000	<80	<80	<80	<80	<80
	8/27/2004	2,600	<100	<1,000	<10	<20	<10	<10	<10
	11/23/2004	1,800	<100	<1,000	<10	<20	<10	<10	<10
	2/9/2005	2,100	130	<1,000	<10	<10	<10	<10	<10

**Table 4**  
**Historical Groundwater Analytical Results - Oxygenate Compounds**  
**Unocal No. 6129 (351639)**  
**3420 35th Avenue**  
**Oakland, California**

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
<b>MW-3 cont.</b>	5/17/2005	1,200	<100	<1,000	<10	<10	<10	<10	<10
	7/27/2005	1,400	360	<1,000	<10	<10	<10	<10	<10
	12/6/2005	1,800	160	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	2/21/2006	1,100	88	<250	<0.50	<0.50	0.58	<0.50	<0.50
	6/8/2006	1,000	<250	<6,200	<12	<12	<12	<12	<12
	9/15/2006	1,200	<250	<6,200	<12	<12	<12	<12	<12
	12/14/2006	1,300	<200	<5,000	<10	<10	<10	<10	<10
	3/28/2007	860	500	<500	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2007	570	11	<250	<0.50	<0.50	<0.50	<0.50	0.65
	9/22/2007	980	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2007	570	26	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/17/2008	520	<10	<250	<0.50	<0.50	<0.50	<0.50	0.65
	6/20/2008	1,300	49	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/11/2008	1,200	<100	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0
	11/25/2008	870	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/9/2009	720	15	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/28/2009	750	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/11/2009	620	63	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/7/2010	660	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/1/2010	490	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/27/2011	890	73	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/24/2012	1,100	300	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	10/23/2012	500	160	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/2/2013	220	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/13/2013	100	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/12/2014	160 <sup>1</sup>	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/19/2014	250 <sup>1</sup>	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/17/2015	570 <sup>1</sup>	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50

**Table 4**  
**Historical Groundwater Analytical Results - Oxygenate Compounds**  
**Unocal No. 6129 (351639)**  
**3420 35th Avenue**  
**Oakland, California**

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
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**NOTES:**

Oxygenate compounds analyzed by Environmental Protection Agency Method 8260B

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

ID = Identification

-- = Not available/Not Analyzed

µg/L = Micrograms per liter

MTBE = Methyl t-butyl ether

TBA = T-butyl alcohol

DIPE = Diisopropyl ether

ETBE = Ethyl t-butyl ether

TAME = T-amyl methyl ether

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

<sup>1</sup> = Practical Quantitation Limits and Method Detection Limits are raised due to sample dilution

## **Figures**



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

**AECOM**

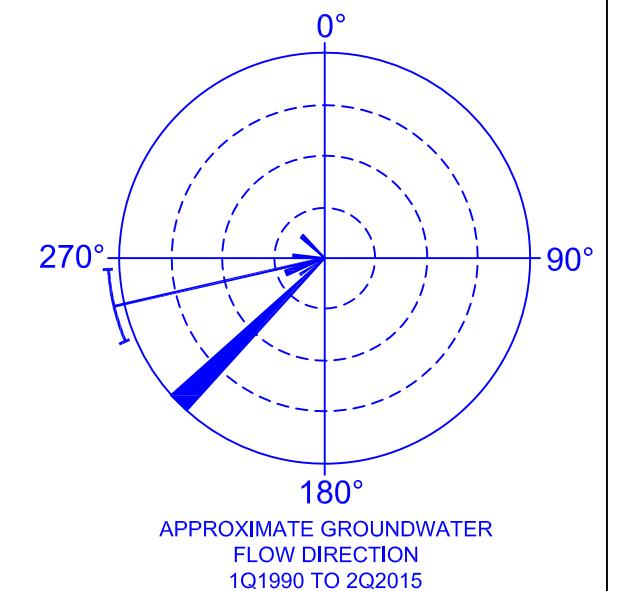
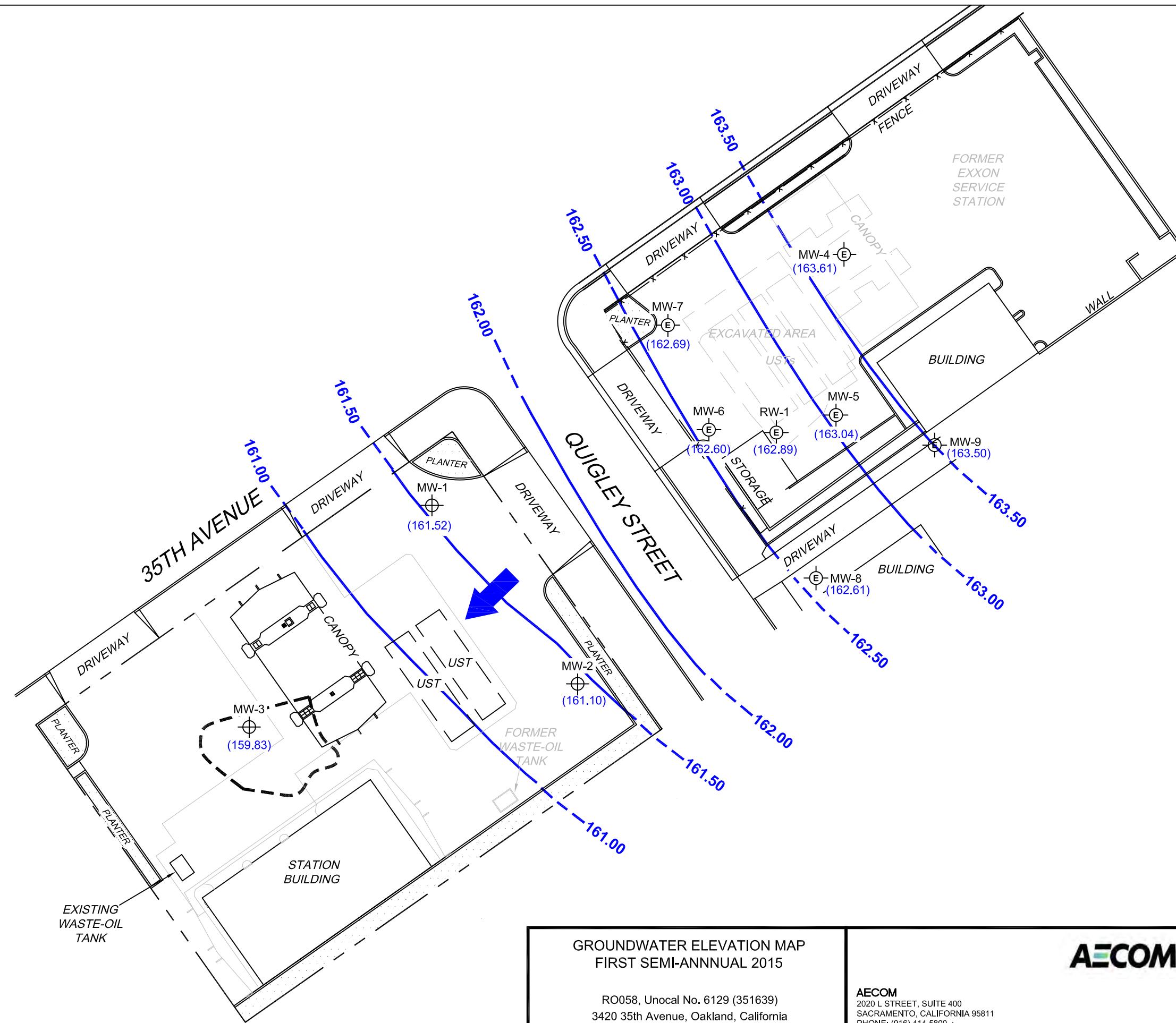
AECOM  
2020 L Street, Suite 400  
Sacramento, CA 95811  
916.414.5800



0 75 150 300  
Feet

**Figure 1: Site Location Map**

**RO058, UNOCAL NO. 6129 (351639)**  
**3420 35th AVENUE**  
**OAKLAND, CALIFORNIA**

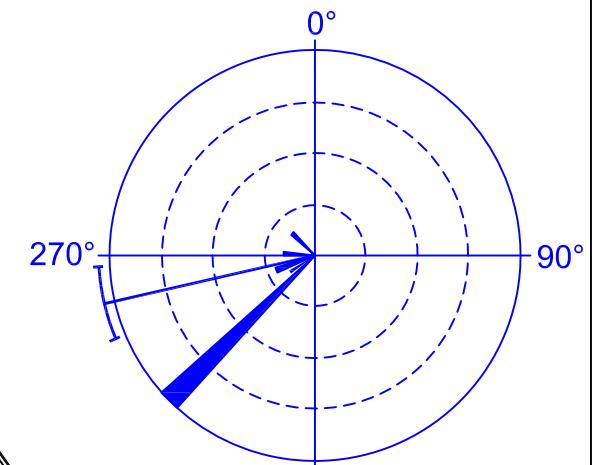
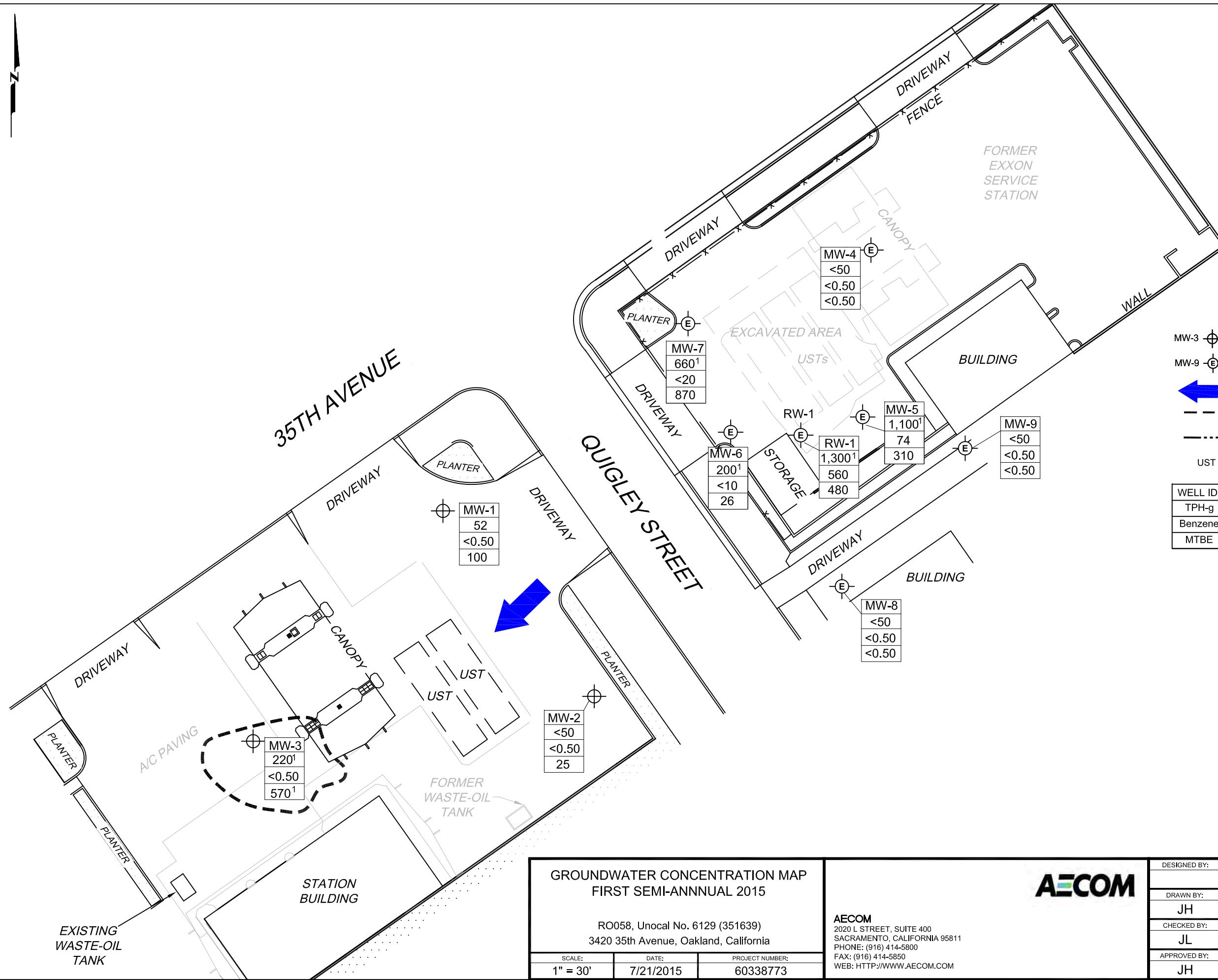


GROUNDWATER ELEVATION MAP  
FIRST SEMI-ANNUAL 2015  
RO058, Unocal No. 6129 (351639)  
3420 35th Avenue, Oakland, California  
SCALE: 1" = 30' DATE: 7/15/2015 PROJECT NUMBER: 60338773

AECOM  
2020 L STREET, SUITE 400  
SACRAMENTO, CALIFORNIA 95811  
PHONE: (916) 414-5800  
FAX: (916) 414-5850  
WEB: HTTP://WWW.AECOM.COM

**AECOM**

DESIGNED BY:		REVISIONS			FIGURE NUMBER:
NO.:	DESCRIPTION:	DATE:	BY:		
DRAWN BY: <b>JH</b>	1 PG AND TECH EDITS	07/21/15	JH		
CHECKED BY: <b>JL</b>					
APPROVED BY: <b>JH</b>					

**FIGURE NUMBER:**

DESIGNED BY:	REVISIONS			FIGURE NUMBER:
NO.:	DESCRIPTION:	DATE:	BY:	3
DRAWN BY:				
JH				
CHECKED BY:				
JL				
APPROVED BY:				
JH				

**AECOM**

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**3**

**Attachment A**

**Groundwater Monitoring and Sampling  
Field Data Sheets**



# ***GETTLER - RYAN INC.***

2015

## **TRANSMITTAL**

June 26, 2015  
G-R #385640

**TO:** Mr. Jim Harms  
AECOM  
10461 Old Placerville Road #170  
Sacramento, California 95827

**FROM:** Deanna L. Harding  
Project Coordinator  
Gettler-Ryan Inc.  
6805 Sierra Court, Suite G  
Dublin, California 94568

**RE:** Chevron Facility  
#351639/6129  
3420 35<sup>th</sup> Avenue  
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

<b>COPIES</b>	<b>DESCRIPTION</b>
VIA PDF	Groundwater Monitoring and Sampling Data Package <b>First Semi-Annual Event of June 17, 2015</b>

**COMMENTS:**

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/351639 6129



## STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351639 / 6129  
 Site Address: 3420 35Th Avenue  
 City: Oakland, CA

Job Number: 385640  
 Event Date: 6/17/15 (inclusive)  
 Sampler: JR

Well ID MW- 1  
 Well Diameter 2 in.  
 Total Depth 43.40 ft.  
 Depth to Water 29.27 ft.  
14.13 xVF .17 = 2.40

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Check if water column is less than 0.50 ft.

x3 case volume = Estimated Purge Volume: 7.20 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 32.09

Purge Equipment:  
 Disposable Bailer X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

Sampling Equipment:  
 Disposable Bailer X  
 Pressure Bailer \_\_\_\_\_  
 Metal Filters \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started:	(2400 hrs)
Time Completed:	(2400 hrs)
Depth to Product:	ft
Depth to Water:	ft
Hydrocarbon Thickness:	ft
Visual Confirmation/Description:	
Skimmer / Absorbant Sock (circle one)	
Amt Removed from Skimmer:	ltr
Amt Removed from Well:	ltr
Water Removed:	ltr

Start Time (purge): 1125  
 Sample Time/Date: 1200 / 6/17/15  
 Approx. Flow Rate: - gpm.  
 Did well de-water? No If yes, Time: \_\_\_\_\_

Weather Conditions: Clear  
 Water Color: cloudy Odor: Y / O  
 Sediment Description: none  
 Volume: \_\_\_\_\_ gal. DTW @ Sampling: 31.10

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ( $\mu$ S/cm) (mhos/cm)	Temperature ( $^{\circ}$ F)	D.O. (mg/L)	ORP (mV)
<u>1131</u>	<u>2.5</u>	<u>7.43</u>	<u>619</u>	<u>19.3</u>	<u>1.6</u>	<u>168</u>
<u>1138</u>	<u>5.0</u>	<u>7.40</u>	<u>612</u>	<u>19.1</u>	<u>1.5</u>	<u>166</u>
<u>1143</u>	<u>7.5</u>	<u>7.31</u>	<u>605</u>	<u>19.1</u>	<u>1.4</u>	<u>153</u>

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 1	3 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)

COMMENTS: \_\_\_\_\_

Add/Replaced Gasket: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_ Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #351639 / 6129**

Site Address: **3420 35Th Avenue**

City: **Oakland, CA**

Job Number: **385640**

Event Date: **6/17/15** (inclusive)

Sampler: **SH**

Well ID **MW-2**

Date Monitored: **6/17/15**

Well Diameter **2** in.

Total Depth **43.58** ft.

Depth to Water **25.70** ft.

**13.88** xVF **.17** = **2.35**

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Check if water column is less than 0.50 ft.

x3 case volume = Estimated Purge Volume: **7.67** gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: **32.47**

**Purge Equipment:**

Disposable Bailer **X**

Stainless Steel Bailer \_\_\_\_\_

Stack Pump \_\_\_\_\_

Peristaltic Pump \_\_\_\_\_

QED Bladder Pump \_\_\_\_\_

Other: \_\_\_\_\_

**Sampling Equipment:**

Disposable Bailer **X**

Pressure Bailer \_\_\_\_\_

Metal Filters \_\_\_\_\_

Peristaltic Pump \_\_\_\_\_

QED Bladder Pump \_\_\_\_\_

Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)

Time Completed: \_\_\_\_\_ (2400 hrs)

Depth to Product: \_\_\_\_\_ ft

Depth to Water: \_\_\_\_\_ ft

Hydrocarbon Thickness: \_\_\_\_\_ ft

Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)

Amt Removed from Skimmer: \_\_\_\_\_ ltr

Amt Removed from Well: \_\_\_\_\_ ltr

Water Removed: \_\_\_\_\_ ltr

Start Time (purge): **1000**

Weather Conditions:

**clear**

Sample Time/Date: **1035** / **6/17/15**

Water Color: **cloudy** Odor: **Y/N**

Approx. Flow Rate: **—** gpm.

Sediment Description: **10 hr**

Did well de-water? **No** If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: **30.92**

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ( $\mu$ s/mS mhos/cm)	Temperature ( $^{\circ}$ C / $^{\circ}$ F)	D.O. (mg/L)	ORP (mV)
<b>1005</b>	<b>2</b>	<b>7.94</b>	<b>743</b>	<b>19.1</b>	<b>1.5</b>	<b>137</b>
<b>1010</b>	<b>4</b>	<b>7.83</b>	<b>752</b>	<b>19.0</b>	<b>1.3</b>	<b>134</b>
<b>1017</b>	<b>7</b>	<b>7.78</b>	<b>770</b>	<b>19.0</b>	<b>1.2</b>	<b>131</b>
					<b>1.2</b>	<b>126</b>

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<b>MW-2</b>	<b>3 x voa vial</b>	<b>YES</b>	<b>HCL</b>	<b>BC LABS</b>	<b>TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)</b>

COMMENTS: \_\_\_\_\_

Add/Replaced Gasket: \_\_\_\_\_

Add/Replaced Bolt: \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351639 / 6129  
 Site Address: 3420 35Th Avenue  
 City: Oakland, CA

Job Number: 385640  
 Event Date: 6/17/15 (inclusive)  
 Sampler: SH

Well ID: MW-3  
 Well Diameter: 2 in.  
 Total Depth: 39.44 ft.  
 Depth to Water: 28.75 ft.  
10.69 xVF .17 = 1.81

Volume Factor (VF)	3/4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80
--------------------	------------------------	----------------------	----------------------	-----------------------

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 30.88

Purge Equipment:  
 Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

Sampling Equipment:  
 Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Metal Filters \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started:	(2400 hrs)
Time Completed:	(2400 hrs)
Depth to Product:	ft
Depth to Water:	ft
Hydrocarbon Thickness:	ft
Visual Confirmation/Description:	
Skimmer / Absorbant Sock (circle one)	
Amt Removed from Skimmer:	ltr
Amt Removed from Well:	ltr
Water Removed:	ltr

Start Time (purge): 1045  
 Sample Time/Date: 1115 / 6/17/15  
 Approx. Flow Rate: — gpm.  
 Did well de-water? No If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 29.80

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ( $\mu\text{S}$ / mS $\mu\text{mhos}/\text{cm}^2$ )	Temperature ( $^\circ$ / F )	D.O. (mg/L)	ORP (mV)
<u>1050</u>	<u>2</u>	<u>7.49</u>	<u>795</u>	<u>19.2</u>	<u>1.7</u>	<u>160</u>
<u>1055</u>	<u>4</u>	<u>7.40</u>	<u>769</u>	<u>19.1</u>	<u>1.5</u>	<u>152</u>
<u>1100</u>	<u>5.5</u>	<u>7.26</u>	<u>784</u>	<u>19.0</u>	<u>1.4</u>	<u>148</u>

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>BC LABS</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)</u>

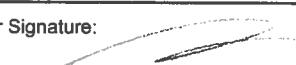
COMMENTS: \_\_\_\_\_

Add/Replaced Gasket: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_ Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_

# CHAIN OF CUSTODY FORM

Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583

COC        of       

Union Oil Site ID: <u>6129</u> Site Global ID: <u>1060010116</u> Site Address: <u>2120 35th Ave. Oakland CA</u> Union Oil PM: <u>N. Alcencero</u> Union Oil PM Phone No.: <u>925-790-6712</u>  Charge Code: <u>NWRTB-0251639</u> -0-LAB				Union Oil Consultant: <u>AECOM</u> Consultant Contact: <u>J. Harms</u> Consultant Phone No.: <u>916-361-6712</u> Sampling Company: <u>TRC INC</u> Sampled By (PRINT): <u>Jim Herzer</u>  Sampler Signature:  <b>BC Laboratories, Inc.</b> Project Manager: <u>Molly Meyers</u> 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911		ANALYSES REQUIRED							
						TPH - Diesel by EPA 8015  TPH - G by GC/MS  BTEX/MTBE/OXY'S by EPA 8260B  Ethanol by EPA 8260B  EPA 8260B Full List with OXYS	Turnaround Time (TAT): Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>  Special Instructions						
												Notes / Comments	
SAMPLE ID	Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers							
QA	W-S-A			1116-17	—	2	X	✓					
MW-1	W-S-A			↓	1200	2	✓	✓					
MW-2	W-S-A			↓	1025	2	✓	✓					
MW-3	W-S-A			↓	1115	3	✓	✓					
	W-S-A												
	W-S-A												
	W-S-A												
	W-S-A												
	W-S-A												
	W-S-A												
	W-S-A												
	W-S-A												
	W-S-A												
Relinquished By: <u>      </u> Company: <u>      </u> Date / Time: <u>      </u>				Relinquished By: <u>      </u> Company: <u>      </u> Date / Time: <u>      </u>				Relinquished By: <u>      </u> Company: <u>      </u> Date / Time: <u>      </u>					
Received By: <u>      </u> Company: <u>      </u> Date / Time: <u>      </u>				Received By: <u>      </u> Company: <u>      </u> Date / Time: <u>      </u>				Received By: <u>      </u> Company: <u>      </u> Date / Time: <u>      </u>					

**Attachment B**

**BC Labs Analytical Report**



**Laboratories, Inc.**

Environmental Testing Laboratory Since 1949

Date of Report: 06/23/2015

Jim Harms

AECOM

2020 L St, Suite 400  
Sacramento, CA 95811

Client Project: 351639

BCL Project: 6129

BCL Work Order: 1514901

Invoice ID: B206502

Enclosed are the results of analyses for samples received by the laboratory on 6/17/2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Contact Person: Molly Meyers  
Client Service Rep



Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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BC

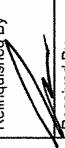
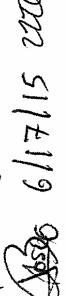
Laboratories, Inc.

Environmental Testing Laboratory Since 1949

## Chain of Custody and Cooler Receipt Form for 1514901 Page 1 of 2

15-14901 CHAIN OF CUSTODY FORM

Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583

Union Oil Site ID:	6129	Union Oil Consultant:	AECOM	COC	1	of
Site Global ID:	10600101460	Consultant Contact:	J. Harms			
Site Address:	3420 35th ave oakland ca	Consultant Phone No.:	916-361-6412			
Union Oil P/M:	N. Arceneaux	Sampling Company:	6-2 Inc			
Union Oil P/M Phone No.:	925-780-6912	Sampled By (PRINT):	Jim Herren			
Charge Code: NWRTB-0	351639-0-LAB	Sampler Signature:				
<i>This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.</i>						
SAMPLE ID						
Field Point Name	Matrix	DTW	Date (yyymmdd)	Sample Time	# of Containers	Notes / Comments
-1 QH	W-S-A		150617	—	2	
-2 MW-1	W-S-A			1200	3	
-3 MW-2	W-S-A			1035	3	
-4 MW-3	W-S-A			1115	3	
	W-S-A					
	W-S-A					
	W-S-A					
	W-S-A					
	W-S-A					
	W-S-A					
Relinquished By	Company	Date / Time:	Relinquished By	Company	Date / Time:	DISTRIBUTION
	6-2 Inc	6/17/15 1430		Grinnell	06-17-15 1430	RECEIVED BY
Received By	Company	Date / Time:	Received By	Company	Date / Time:	RECEIVED BY
Getzert - RYD STRUEGE	6-2 Inc	06-17-15 1430	Grinnell	06-17-15 1400	6/17/15 1430	6/17/15 1430
REL -		6/17/15 2100		6/17/15 2100	6/17/15 2100	6/17/15 2100

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## Chain of Custody and Cooler Receipt Form for 1514901 Page 2 of 2

BC LABORATORIES INC.		COOLER RECEIPT FORM				Page <u>1</u> Of <u>1</u>				
Submission #: <u>15-14901</u>										
SHIPPING INFORMATION				SHIPPING CONTAINER		FREE LIQUID				
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/>	Box <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>			
BC Lab Field Service <input checked="" type="checkbox"/>				Other <input type="checkbox"/> (Specify) _____		Other <input type="checkbox"/> (Specify) _____				
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals	Ice Chest <input type="checkbox"/>	Containers <input type="checkbox"/>	None <input checked="" type="checkbox"/> Comments: _____							
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Emissivity: <u>0.95</u> Container: <u>PE</u> Thermometer ID: <u>208</u>		Date/Time <u>6/17/15 2031</u>			Analyst Init <u>KIB</u>				
Temperature: (A) <u>0.5</u> °C / (C) <u>0.6</u> °C										
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	<u>AB</u>									
40ml VOA VIAL		<u>ABC</u>	<u>ABC</u>	<u>ABC</u>						
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 801SM										
8oz / 16oz / 32oz AMBER										
3oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
Pedlar Bag										
FERROUS IRON										
INCORE										
MART KIT										
umma Canister										
Comments: _____										
Sample Numbering Completed By: <u>M</u>	Rev. No. 19 05/06/2015									
= Actual / C = Corrected	Date/Time: <u>6/17/15 2215</u> (S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\1SAMREC\rev 19)									

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AECOM  
2020 L St, Suite 400  
Sacramento, CA 95811

Reported: 06/23/2015 16:53  
Project: 6129  
Project Number: 351639  
Project Manager: Jim Harms

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1514901-01	<b>COC Number:</b> --- <b>Project Number:</b> 6129 <b>Sampling Location:</b> --- <b>Sampling Point:</b> QA-W-150617 <b>Sampled By:</b> GRD	<b>Receive Date:</b> 06/17/2015 22:20 <b>Sampling Date:</b> 06/17/2015 00:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Blank Water Delivery Work Order: Global ID: T0600101465 Location ID (FieldPoint): QA Matrix: W Sample QC Type (SACode): CS Cooler ID:	
1514901-02	<b>COC Number:</b> --- <b>Project Number:</b> 6129 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-1-W-150617 <b>Sampled By:</b> GRD	<b>Receive Date:</b> 06/17/2015 22:20 <b>Sampling Date:</b> 06/17/2015 12:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600101465 Location ID (FieldPoint): MW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:	
1514901-03	<b>COC Number:</b> --- <b>Project Number:</b> 6129 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-2-W-150617 <b>Sampled By:</b> GRD	<b>Receive Date:</b> 06/17/2015 22:20 <b>Sampling Date:</b> 06/17/2015 10:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600101465 Location ID (FieldPoint): MW-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:	

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AECOM  
2020 L St, Suite 400  
Sacramento, CA 95811

**Reported:** 06/23/2015 16:53  
**Project:** 6129  
**Project Number:** 351639  
**Project Manager:** Jim Harms

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information	
1514901-04	<b>COC Number:</b> --- <b>Project Number:</b> 6129 <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-W-150617 <b>Sampled By:</b> GRD	<b>Receive Date:</b> 06/17/2015 22:20 <b>Sampling Date:</b> 06/17/2015 11:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: T0600101465 Location ID (FieldPoint): MW-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:

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**Reported:** 06/23/2015 16:53  
**Project:** 6129  
**Project Number:** 351639  
**Project Manager:** Jim Harms

## Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID:	1514901-01	Client Sample Name:	6129, QA-W-150617, 6/17/2015 12:00:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND			1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND			1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND			1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND			1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND			1
Toluene	ND	ug/L	0.50	EPA-8260B	ND			1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND			1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260B	ND			1
t-Butyl alcohol	ND	ug/L	10	EPA-8260B	ND			1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260B	ND			1
Ethanol	ND	ug/L	250	EPA-8260B	ND	A40		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND			1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	Luft-GC/MS	ND			1
1,2-Dichloroethane-d4 (Surrogate)	113	%	75 - 125 (LCL - UCL)	EPA-8260B				1
Toluene-d8 (Surrogate)	103	%	80 - 120 (LCL - UCL)	EPA-8260B				1
4-Bromofluorobenzene (Surrogate)	98.2	%	80 - 120 (LCL - UCL)	EPA-8260B				1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/19/15	06/20/15 02:23	JCC	MS-V14	1	BYF1514

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**Project:** 6129  
**Project Number:** 351639  
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## Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID:	1514901-02	Client Sample Name:		6129, MW-1-W-150617, 6/17/2015 12:00:00PM				
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND			1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND			1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND			1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND			1
<b>Methyl t-butyl ether</b>	<b>100</b>	<b>ug/L</b>	<b>0.50</b>	<b>EPA-8260B</b>	ND			1
Toluene	ND	ug/L	0.50	EPA-8260B	ND			1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND			1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260B	ND			1
t-Butyl alcohol	ND	ug/L	10	EPA-8260B	ND			1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260B	ND			1
Ethanol	ND	ug/L	250	EPA-8260B	ND	A40		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND			1
<b>Total Purgeable Petroleum Hydrocarbons</b>	<b>52</b>	<b>ug/L</b>	<b>50</b>	<b>Luft-GC/MS</b>	ND			1
1,2-Dichloroethane-d4 (Surrogate)	114	%	75 - 125 (LCL - UCL)	EPA-8260B				1
Toluene-d8 (Surrogate)	106	%	80 - 120 (LCL - UCL)	EPA-8260B				1
4-Bromofluorobenzene (Surrogate)	96.2	%	80 - 120 (LCL - UCL)	EPA-8260B				1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/19/15	06/20/15 03:10	JCC	MS-V14	1	BYF1514

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## Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID:	1514901-03	Client Sample Name: 6129, MW-2-W-150617, 6/17/2015 10:35:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND			1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND			1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND			1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND			1
<b>Methyl t-butyl ether</b>	<b>25</b>	<b>ug/L</b>	<b>0.50</b>	<b>EPA-8260B</b>	ND			1
Toluene	ND	ug/L	0.50	EPA-8260B	ND			1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND			1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260B	ND			1
t-Butyl alcohol	ND	ug/L	10	EPA-8260B	ND			1
<b>Diisopropyl ether</b>	<b>3.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>EPA-8260B</b>	ND			1
Ethanol	ND	ug/L	250	EPA-8260B	ND	A40		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND			1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	Luft-GC/MS	ND			1
1,2-Dichloroethane-d4 (Surrogate)	114	%	75 - 125 (LCL - UCL)	EPA-8260B				1
Toluene-d8 (Surrogate)	105	%	80 - 120 (LCL - UCL)	EPA-8260B				1
4-Bromofluorobenzene (Surrogate)	96.9	%	80 - 120 (LCL - UCL)	EPA-8260B				1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/19/15	06/20/15 03:33	JCC	MS-V14	1	BYF1514

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## Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID:	1514901-04	Client Sample Name: 6129, MW-3-W-150617, 6/17/2015 11:15:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND			1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND			1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND			1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND			1
<b>Methyl t-butyl ether</b>	<b>570</b>	<b>ug/L</b>	<b>5.0</b>	<b>EPA-8260B</b>	ND	<b>A01</b>		<b>2</b>
Toluene	ND	ug/L	0.50	EPA-8260B	ND			1
Total Xylenes	ND	ug/L	1.0	EPA-8260B	ND			1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260B	ND			1
t-Butyl alcohol	ND	ug/L	10	EPA-8260B	ND			1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260B	ND			1
Ethanol	ND	ug/L	250	EPA-8260B	ND	A40		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND			1
<b>Total Purgeable Petroleum Hydrocarbons</b>	<b>220</b>	<b>ug/L</b>	<b>50</b>	<b>Luft-GC/MS</b>	ND	<b>A90</b>		<b>1</b>
1,2-Dichloroethane-d4 (Surrogate)	114	%	75 - 125 (LCL - UCL)	EPA-8260B				1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)	EPA-8260B				2
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260B				1
Toluene-d8 (Surrogate)	103	%	80 - 120 (LCL - UCL)	EPA-8260B				2
4-Bromofluorobenzene (Surrogate)	97.6	%	80 - 120 (LCL - UCL)	EPA-8260B				1
4-Bromofluorobenzene (Surrogate)	90.2	%	80 - 120 (LCL - UCL)	EPA-8260B				2

Run #	Method	Prep Date	Run Date/Time		Analyst	Instrument	Dilution	QC Batch ID
			Date	Time				
1	EPA-8260B	06/19/15	06/20/15	03:56	JCC	MS-V14	1	BYF1514
2	EPA-8260B	06/19/15	06/23/15	06:03	JCC	MS-V14	10	BYF1514

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## Volatile Organic Analysis (EPA Method 8260B)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BYF1514</b>						
Benzene	BYF1514-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BYF1514-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BYF1514-BLK1	ND	ug/L	0.50		
Ethylbenzene	BYF1514-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BYF1514-BLK1	ND	ug/L	0.50		
Toluene	BYF1514-BLK1	ND	ug/L	0.50		
Total Xylenes	BYF1514-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BYF1514-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BYF1514-BLK1	ND	ug/L	10		
Diisopropyl ether	BYF1514-BLK1	ND	ug/L	0.50		
Ethanol	BYF1514-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BYF1514-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BYF1514-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BYF1514-BLK1	102	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BYF1514-BLK1	104	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BYF1514-BLK1	95.7	%	80 - 120 (LCL - UCL)		

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## Volatile Organic Analysis (EPA Method 8260B)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
<b>QC Batch ID: BYF1514</b>									
Benzene	BYF1514-BS1	LCS	25.724	25.000	ug/L	103		70 - 130	
Toluene	BYF1514-BS1	LCS	25.299	25.000	ug/L	101		70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BYF1514-BS1	LCS	10.650	10.000	ug/L	106		75 - 125	
Toluene-d8 (Surrogate)	BYF1514-BS1	LCS	10.540	10.000	ug/L	105		80 - 120	
4-Bromofluorobenzene (Surrogate)	BYF1514-BS1	LCS	10.480	10.000	ug/L	105		80 - 120	

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## Volatile Organic Analysis (EPA Method 8260B)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	<u>Control Limits</u>		
									RPD	Percent Recovery	Lab Quals
<b>QC Batch ID: BYF1514</b>		Used client sample: N									
Benzene	MS	1513811-31	ND	24.190	25.000	ug/L		96.8		70 - 130	
	MSD	1513811-31	ND	24.761	25.000	ug/L	2.3	99.0	20	70 - 130	
Toluene	MS	1513811-31	ND	23.626	25.000	ug/L		94.5		70 - 130	
	MSD	1513811-31	ND	24.085	25.000	ug/L	1.9	96.3	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1513811-31	ND	10.410	10.000	ug/L		104		75 - 125	
	MSD	1513811-31	ND	11.130	10.000	ug/L	6.7	111		75 - 125	
Toluene-d8 (Surrogate)	MS	1513811-31	ND	10.290	10.000	ug/L		103		80 - 120	
	MSD	1513811-31	ND	10.720	10.000	ug/L	4.1	107		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1513811-31	ND	10.510	10.000	ug/L		105		80 - 120	
	MSD	1513811-31	ND	10.540	10.000	ug/L	0.3	105		80 - 120	



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## Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A01	Detection and quantitation limits are raised due to sample dilution.
A40	Initial calibration linearity criteria not met.
A90	TPPH does not exhibit a "gasoline" pattern. TPPH is entirely due to MTBE.

**Attachment C**

**Former Exxon Service Station Data Tables**

TABLE 1 WELL CONSTRUCTION DETAILS,  
FORMER EXXON SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date Installed	Date Destroyed	Elevation (feet)	Borehole Diameter (inches)	Total Depth of Boring (feet bgs)	Well Depth (feet bgs)	Casing Diameter (inches)	Casing Material	Screened Interval (feet bgs)	Slot Size (inches)	Filter Pack Interval (feet bgs)	Filter Pack Material
MW1	07/15/92	06/00	192.00	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW2	07/15/92	06/00	194.85	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW3	07/15/92	06/00	196.90	11	45	45	4	Sch. 40 PVC	25-45	0.010	23-45	2/12 Lonestar Sand
MW4	03/02/09	---	197.62	8	45	45	2	Sch. 40 PVC	35-45	0.020	33-45	#3 Sand
MW5	03/06/09	---	196.35	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW6	03/09/09	---	192.41	8	40	39	2	Sch. 40 PVC	29-39	0.020	27-39	#3 Sand
MW7	03/09/09	---	194.34	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW8	03/04/09	---	192.96	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
MW9	03/05/09	---	195.16	8	40	40	2	Sch. 40 PVC	30-40	0.020	28-40	#3 Sand
RW1	12/22/11	---	195.15	10	40	40	4	Stainless Steel	25-39.5	0.020	23-40	#2/12 Sand

TOC Top of well casing elevation; datum is mean sea level.

PVC Polyvinyl chloride.

feet bgs Feet below ground surface.

--- Not applicable.

Notes: Data prior to 2013 provided by Cardno ERI.

TABLE 2 CURRENT GROUNDWATER MONITORING DATA,  
FORMER EXXON SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water TOC (feet below)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g ( $\mu\text{g}/\text{L}$ )	Benzene ( $\mu\text{g}/\text{L}$ )	Toluene ( $\mu\text{g}/\text{L}$ )	Ethylbenzene ( $\mu\text{g}/\text{L}$ )	Total Xylenes ( $\mu\text{g}/\text{L}$ )	MTBE 8260B ( $\mu\text{g}/\text{l}$ )
MW4	SCREEN INTERVAL (feet bgs) 35-45										
MW4	05/13/15 a	197.62	34.01	163.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW5	SCREEN INTERVAL (feet bgs) 30-40										
MW5	05/13/15 a	196.35	33.31	163.04	0.00	1,100 HD	74	<2.5	<2.5	2.7	310
MW6	SCREEN INTERVAL (feet bgs) 29-39										
MW6	05/13/15 a	192.41	29.81	162.60	0.00	200 HD	<10	<10	<10	<10	26
MW7	SCREEN INTERVAL (feet bgs) 30-40										
MW7	05/13/15 a	194.34	31.65	162.69	0.00	660 HD	<20	<20	<20	<20	870
MW8	SCREEN INTERVAL (feet bgs) 30-40										
MW8	05/13/15 a	192.96	30.35	162.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW9	SCREEN INTERVAL (feet bgs) 30-40										
MW9	05/13/15 a	195.16	31.66	163.5	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50
RW1	SCREEN INTERVAL (feet bgs) 29-39.5										
RW1	05/13/15 a	195.15	32.26	162.89	0.00	1,300 HD	560	<5.0	8.1	2.4 JA	480

TOC Top of casing.

bgs Below ground surface.

LPH Liquid-phase hydrocarbons.

$\mu\text{g}/\text{L}$  Micrograms per liter.

TPH-g Total Petroleum Hydrocarbons as gasoline.

--- Not sampled or not analyzed.

MTBE Methyl tertiary butyl ether.

NA Not available.

NM Not measured.

NC Not calculated.

a Well purged prior to sampling.

b Well inaccessible.

HD Chromat. profile inconsistent with the ref. fuel stdns.

J Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

JA Analyte positively identified but quantitation is an estimate.

TABLE 2 CURRENT GROUNDWATER MONITORING DATA,  
FORMER EXXON SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Depth		Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g ( $\mu\text{g}/\text{L}$ )	Benzene ( $\mu\text{g}/\text{L}$ )	Toluene ( $\mu\text{g}/\text{L}$ )	Ethyl- benzene ( $\mu\text{g}/\text{L}$ )	Total Xylenes ( $\mu\text{g}/\text{L}$ )	MTBE 8260B ( $\mu\text{g}/\text{l}$ )
		Elevation TOC (feet)	to Water TOC (feet below TOC)								

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology. Data prior to 2013 provided by Cardno ERI.

**TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,  
FORMER EXXON SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA**

Well Number	Date	Elevation TOC (feet)	Depth to Water TOC (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl-benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MTBE 8260B ( $\mu\text{g/L}$ )	Total Pb ( $\mu\text{g/L}$ )	Organic Pb (mg/L)
<b>MW1 SCREEN INTERVAL (feet bgs) 25-45</b>													
MW1	07/15/92	---	Well installed.										
MW1	07/17/92	192.00	33.02	158.98	0.00	67	6.6	6.9	2.0	4.5	---	17	---
MW1	10/22/92	192.00	34.07	157.93	0.00	<50	2.9	<0.5	<0.5	<0.5	---	16	---
MW1	02/04/93	192.00	29.43	162.57	0.00	<50	0.8	<0.5	<0.5	<0.5	---	4	---
MW1	05/03/93	192.00	29.72	162.28	0.00	71	2.8	7.2	2.2	22	---	40	---
MW1	07/30/93	192.00	32.95	159.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	5	---
MW1	10/19/93	192.00	34.34	157.66	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	12	---
MW1	02/23/94	192.00	31.72	160.28	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	4	---
MW1	06/06/94	192.00	31.77	160.23	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW1	08/18/94	192.00	33.76	158.24	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	130	---
MW1	11/15/94	192.00	34.08	157.92	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW1	02/06/95	192.00	28.50	163.50	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW1	05/10/95	192.00	29.30	162.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW1	09/20/99	192.00	33.30	158.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<50
MW1	Well destroyed in June 2000.												
<b>MW2 SCREEN INTERVAL (feet bgs) 25-45</b>													
MW2	07/15/92	---	Well installed.										
MW2	07/17/92	194.85	34.65	160.20	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	10/22/92	194.85	35.64	159.21	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	--	---
MW2	02/04/93	194.85	31.13	163.72	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	05/03/93	194.85	31.08	163.77	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	3	---
MW2	07/30/93	194.85	34.34	160.51	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	14	---
MW2	10/19/93	194.85	36.00	158.85	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	02/23/94	194.85	33.92	160.93	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	06/06/94	194.85	33.50	161.35	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW2	08/18/94	194.85	35.38	159.47	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	---
MW2	11/15/94	194.85	35.93	158.92	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW2	02/06/95	194.85	30.38	164.47	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW2	05/10/95	194.85	30.77	164.08	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW2	09/20/99	194.85	35.15	159.70	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<0.5
MW2	Well destroyed in June 2000.												
<b>MW3 SCREEN INTERVAL (feet bgs) 25-45</b>													
MW3	07/15/92	---	Well installed.										
MW3	07/17/92	196.90	37.24	159.66	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	50	---
MW3	10/22/92	196.90	35.95	160.95	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	9	---
MW3	02/04/93	196.90	29.85	167.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW3	05/03/93	196.90	29.87	167.03	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	3	---
MW3	07/30/93	196.90	33.85	163.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	22	---
MW3	10/19/93	196.90	35.89	161.01	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	12	---
MW3	02/23/94	196.90	32.88	164.02	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	25	---

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,  
FORMER EXXON SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl-benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MTBE 8260B ( $\mu\text{g/l}$ )	Total Pb ( $\mu\text{g/L}$ )	Organic Pb (mg/L)
MW3	06/06/94	196.90	32.40	164.50	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3	---
MW3	08/18/94	196.90	35.07	161.83	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	---
MW3	11/15/94	196.90	35.97	160.93	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	<3.0	<100
MW3	02/06/95	196.90	28.39	168.51	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW3	05/10/95	196.90	28.90	168.00	0.00	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
MW3	09/20/99	196.90	34.68	162.22	0.00	75.0	<0.5	11.5	1.8	18.0	1.87	<75	<0.5
MW3	Well destroyed in June 2000.												
MW4	SCREEN INTERVAL (feet bgs) 35-45												
MW4	03/02/09	---	Well installed.	197.62	30.94	166.68	0.00	<50	<0.50	<0.50	<0.50	<0.50	---
MW4	03/30/09	197.62		35.43	165.62	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---
MW4	04/02/09	197.62	Well surveyed.	197.62	32.00	162.19	0.00	<50	<0.50	<0.50	<0.50	<0.50	---
MW4	05/28/09	197.62		197.62	35.01	162.61	0.00	<50	<0.50	0.83	<0.50	1.1	<0.50
MW4	08/31/09	197.62	34.95	168.51	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	12/11/09	197.62	34.95	162.67	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	05/07/10	197.62	34.95	166.97	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	11/01/10	197.62	30.65	164.13	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---
MW4	05/27/11	a	197.62	33.49	164.13	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---
MW4	05/24/12	197.62	30.02	167.60	0.00	58	0.84	4.4	0.64c	3.5	<0.50	---	---
MW4	10/31/12	197.62	35.14	162.48	0.00	110	5.3	45	4.2	21	<0.50	---	---
MW4	05/02/13	e	197.62	32.03	165.59	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---
MW4	11/09/13	197.62	36.53	161.09	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
MW4	05/12/14	a	197.62	33.51	164.11	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---
MW4	11/19/14	a	197.62	36.96	160.66	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---
<b>MW4</b>	<b>05/13/15</b>	<b>a</b>	<b>197.62</b>	<b>34.01</b>	<b>163.61</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>---</b>
MW5	SCREEN INTERVAL (feet bgs) 30-40												
MW5	03/06/09	---	Well installed.	196.35	30.05	166.30	0.00	4,200	540	140	<12	310	1,900
MW5	03/30/09	196.35		34.70	164.90	0.00	5,300	890	150	<25	140	3,600	---
MW5	04/02/09	196.35	Well surveyed.	196.35	31.45	161.65	0.00	5,800	550	<100	<100	<100	3,500
MW5	05/28/09	196.35		196.35	34.52	161.83	0.00	4,000b	230	<100	<100	<100	3,800
MW5	08/31/09	196.35	30.84	165.51	0.00	2,700b	73	5.3	3.6	6.5	1,700	---	---
MW5	12/11/09	196.35	33.93	162.42	0.00	2,400b	320	71	21	40	3,400	---	---
MW5	05/07/10	196.35	31.65	164.70	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---
MW5	11/01/10	196.35	32.58	163.77	0.00	1,900b	72	2.7	3.1	8.1	3,200	---	---
MW5	05/27/11	a	196.35	30.26	166.09	0.00	2,900b	54	31	5.2	17	1,700	---
MW5	11/23/11	196.35	33.94	162.41	0.00	2,200b	220	72	8.7	47	2,700	---	---
MW5	05/24/12	196.35	31.33	165.02	0.00	2,200b	61	<0.50	3.8	7.9	1,300	---	---
MW5	10/31/12	196.35	35.69	160.66	0.00	1,300b	120	<5.0	<5.0	8.8	370	---	---
MW5	05/02/13	c	196.35	32.64	163.71	0.00	1,200	120	<5.0	<5.0	<5.0	490	---

**TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,  
FORMER EXXON SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA**

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl-benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MTBE 8260B ( $\mu\text{g/l}$ )	Total Pb ( $\mu\text{g/L}$ )	Organic Pb (mg/L)
MW5	11/19/14	a 196.35	36.05	160.30	0.00	1,400 HD	140	2.0 J	<2.5	4.7	120	---	---
MW5	<b>05/13/15</b>	<b>a 196.35</b>	<b>33.31</b>	<b>163.04</b>	<b>0.00</b>	<b>1,100 HD</b>	<b>74</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>2.7</b>	<b>310</b>	<b>---</b>	<b>---</b>
MW6 SCREEN INTERVAL (feet bgs) 29-39													
MW6	03/09/09	---	Well installed.										
MW6	03/30/09	192.41	26.94	165.47	0.00	2,800	0.91	<0.50	<0.50	<0.50	4,800	---	---
MW6	04/02/09	192.41	Well surveyed.										
MW6	05/28/09	192.41	28.04	164.37	0.00	2,800	<100	<100	<100	<100	6,000	---	---
MW6	08/31/09	192.41	30.57	161.84	0.00	4,900	<100	<100	<100	<100	6,600	---	---
MW6	12/11/09	192.41	30.78	161.63	0.00	4,900b	<100	<100	<100	<100	6,200	---	---
MW6	05/07/10	192.41	25.42	166.99	0.00	2,900b	2.7	<0.50	0.74c	<1.0	3,700	---	---
MW6	11/01/10	192.41	30.68	161.73	0.00	850b	2.1	<0.50	<0.50	<1.0	6,100	---	---
MW6	05/27/11	a 192.41	27.07	165.34	0.00	---	---	---	---	---	---	---	---
MW6	11/23/11	192.41	29.25	163.16	0.00	1,600b	<0.50	<0.50	<0.50	<1.0	6,400	---	---
MW6	05/24/12	192.41	26.36	166.05	0.00	2,000b	1.3c	9.7	0.97c	5.5	3,400	---	---
MW6	10/31/12	192.41	30.74	161.67	0.00	1,400b	3.8	28	2.2	11	5,400	---	---
MW6	05/02/13	192.41	27.91	164.50	0.00	1,900b	<0.50	<0.50	<0.50	<0.50	2,600	---	---
MW6	11/09/13	192.41	32.15	160.26	0.00	3,600b	<40	<40	<40	<40	4,800	---	---
MW6	05/12/14	a 192.41	29.28	163.13	0.00	190 HD	<5.0	<5.0	<5.0	<5.0	280	---	---
MW6	11/19/14	a 192.41	32.49	159.92	0.00	420 HD	<10	<10	<10	<10	530	---	---
<b>MW6</b>	<b>05/13/15</b>	<b>a 192.41</b>	<b>29.81</b>	<b>162.60</b>	<b>0.00</b>	<b>200 HD</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>26</b>	<b>---</b>	<b>---</b>
MW7 SCREEN INTERVAL (feet bgs) 30-40													
MW7	03/09/09	---	Well installed.										
MW7	03/30/09	194.34	29.15	165.19	0.00	55	<0.50	<0.50	<0.50	<0.50	66	---	---
MW7	04/02/09	194.34	Well surveyed.										
MW7	05/28/09	194.34	30.16	164.18	0.00	50	<1.0	<1.0	<1.0	<1.0	67	---	---
MW7	08/31/09	194.34	33.31	161.03	0.00	<50	<0.50	0.60	<0.50	<0.50	12	---	---
MW7	12/11/09	194.34	32.71	161.63	0.00	<50	0.78	1.7	0.62	2.4	31	---	---
MW7	05/07/10	194.34	27.54	166.80	0.00	510b	<0.50	<0.50	<0.50	<1.0	700	---	---
MW7	11/01/10	194.34	32.82	161.52	0.00	68b	<0.50	<0.50	<0.50	<1.0	140	---	---
MW7	05/27/11	a 194.34	28.85	165.49	0.00	---	---	---	---	---	---	---	---
MW7	11/23/11	194.34	31.39	162.95	0.00	190b	<0.50	<0.50	<0.50	<1.0	300	---	---
MW7	05/24/12	a 194.34	28.31	166.03	0.00	---	---	---	---	---	---	---	---
MW7	10/31/12	194.34	32.86	161.48	0.00	230b	2.9	21	1.8	9.2	290	---	---
MW7	05/02/13	194.34	29.93	164.41	0.00	570b	<0.50	<0.50	<0.50	<0.50	790	---	---
MW7	11/09/13	194.34	34.23	160.11	0.00	370b	<10	<10	<10	<10	460	---	---
MW7	05/12/14	a 194.34	31.33	163.01	0.00	310 HD	<10	<10	<10	<10	980	---	---
MW7	11/19/14	a 194.34	34.31	160.03	0.00	400 HD	<12	<12	<12	<12	660	---	---
<b>MW7</b>	<b>05/13/15</b>	<b>a 194.34</b>	<b>31.65</b>	<b>162.69</b>	<b>0.00</b>	<b>660 HD</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>870</b>	<b>---</b>	<b>---</b>
MW8 SCREEN INTERVAL (feet bgs) 30-40													
MW8	03/04/09	---	Well installed.										

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,  
FORMER EXXON SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl-benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MTBE 8260B ( $\mu\text{g/L}$ )	Total Pb ( $\mu\text{g/L}$ )	Organic Pb (mg/L)	
MW8	03/30/09	192.96	27.35	165.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW8	04/02/09	192.96	Well surveyed.	164.24	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW8	05/28/09	192.96		161.03	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW8	08/31/09	192.96		161.72	0.00	<50	0.74	1.6	0.59	2.3	<0.50	---	---	
MW8	12/11/09	192.96		167.28	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---	
MW8	05/07/10	192.96		161.78	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---	
MW8	11/01/10	192.96		165.41	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---	
MW8	05/27/11	192.96		163.22	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---	
MW8	11/23/11	192.96		166.03	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---	
MW8	05/24/12	192.96		161.61	0.00	75	2.5	19	1.7	8.7	<0.50	---	---	
MW8	10/31/12	192.96		164.52	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW8	05/02/13	192.96		160.07	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW8	11/09/13	192.96		162.69	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW8	05/12/14	a	192.96	30.27	159.80	0.00	<50	<0.50	<0.50	<0.50	<0.50	---	---	
MW8	11/19/14	a	192.96	33.16	162.61	0.00	<50	<0.50	<0.50	<0.50	<0.50	---	---	
MW8	<b>05/13/15</b>	a	<b>192.96</b>	<b>30.35</b>	<b>162.61</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>---</b>	<b>---</b>
MW9	SCREEN INTERVAL (feet bgs) 30-40													
MW9	03/05/09	---	Well installed.	166.85	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW9	03/30/09	195.16		28.31	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW9	04/02/09	195.16		165.47	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW9	05/28/09	195.16		161.96	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW9	08/31/09	195.16		162.54	0.00	<50	0.73	1.7	0.54	2.2	<0.50	---	---	
MW9	12/11/09	195.16		168.57	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---	
MW9	05/07/10	195.16		162.71	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---	
MW9	11/01/10	195.16		162.59	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---	
MW9	05/27/11	195.16		165.54	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---	
MW9	11/23/11	195.16		164.60	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---	
MW9	05/24/12	195.16		167.22	0.00	<50	<0.50	<0.50	<0.50	<1.0	<0.50	---	---	
MW9	10/31/12	195.16		32.66	0.00	140	6.9	38	2.7	13	<0.50	---	---	
MW9	05/02/13	195.16		29.58	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW9	11/09/13	195.16	Well inaccessible.	165.58	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW9	05/12/14	b		195.16	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	
MW9	11/19/14	a		34.60	160.56	0.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
MW9	<b>05/13/15</b>	a	<b>195.16</b>	<b>31.66</b>	<b>163.5</b>	<b>0.00</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>---</b>	<b>---</b>
RW1	SCREEN INTERVAL (feet bgs) 29-39.5													
RW1	12/22/11	---	Well installed.	166.60	0.00	5,500b	920	5.9c	51	14	2,500	---	---	
RW1	12/30/11	195.15		28.55	0.00	<500b	<500c	<500c	<500c	<500c	<500c	---	---	
RW1	05/24/12	195.15		160.51	0.00	4,300b	1,200	<2.5	41	14	2,300	---	---	
RW1	10/31/12	a		30.27	164.88	0.00	810b	210	<10	<10	520	---	---	
RW1	05/02/13	c		34.64	160.51	0.00	<50	<50	<50	<50	<50	---	---	

TABLE 3 HISTORICAL GROUNDWATER MONITORING DATA,  
FORMER EXXON SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Elevation TOC (feet)	Depth to Water (feet below TOC)	Groundwater Elevation (feet)	LPH Thickness (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl-benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MTBE 8260B ( $\mu\text{g/l}$ )	Total Pb ( $\mu\text{g/L}$ )	Organic Pb (mg/L)
RW1	05/12/14	a	195.15	31.54	163.61	0.00	830 HD	450	<10	13	<10	490	---
RW1	11/19/14	a	195.15	34.94	160.21	0.00	910 HD	450	<10	<10	<10	590	---
<b>RW1</b>	<b>05/13/15</b>	<b>a</b>	<b>195.15</b>	<b>32.26</b>	<b>162.89</b>	<b>0.00</b>	<b>1,300 HD</b>	<b>560</b>	<b>&lt;5.0</b>	<b>8.1</b>	<b>2.4 JA</b>	<b>480</b>	<b>---</b>
<b>Grab Groundwater Samples</b>													
Pit Water	06/14/02	---	---	---	---	5,600	140	840	100	530	12,000	---	---
UST Pit	06/19/02	---	---	---	---	680	2.7	36	18	130	640	---	---
W-38-B11	11/14/07	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
W-15-B12	11/13/07	---	---	---	---	8,400	67	<5.0	140	150	78	---	---
W-40-B13	11/12/07	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	0.53	---	---
W-15-B14	11/13/07	---	---	---	---	2,500	1.7	3.0	26	13	16	---	---
W-38-B15	11/15/07	---	---	---	---	18,000	3,400	2,500	330	2,000	12,000	---	---
W-40-B16	11/15/07	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	7.7	---	---
W-37-B17	11/13/07	---	---	---	---	630	1.8	<0.50	4.1	1.4	2,200	---	---
W-38-B18	11/12/07	---	---	---	---	4,300	52	<12	56	96	1,400	---	---
W-35-B19	03/03/09	---	---	---	---	4,400	<0.50	<0.50	<0.50	<1.0	7,100	---	---
W-35-B20	03/03/09	---	---	---	---	640	<0.50	<0.50	<0.50	<1.0	440	---	---
W-35-B21	03/03/09	---	---	---	---	<50	<0.50	<0.50	<0.50	<1.0	1.4	---	---

TOC Top of casing.

LPH Liquid-phase hydrocarbons.

TPH-g Total Petroleum Hydrocarbons as gasoline.

MTBE Methyl tertiary butyl ether.

NM Not measured.

bgs Below ground surface.

$\mu\text{g/L}$  Micrograms per liter.

-- Not sampled or not analyzed.

NA Not available.

NC Not calculated.

Total Pb Total lead analyzed using EPA Method 6010.

Organic Pb Organic lead analyzed using CA DHS LUFT method.

a Well purged prior to sampling.

b Well inaccessible.

c Well sampled the following day.

HD Chromat. profile inconsistent with the ref. fuel stdns.

J Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

JA Analyte positively identified but quantitation is an estimate.

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology. Data prior to 2013 provided by Cardno ERI.

**TABLE 4 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,  
FORMER EXXON SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA**

Well Number	Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
MW1	7/17/1992 - 09/20/1999									
MW1										
MW2	7/17/1992 - 09/20/1999									
MW2										
MW3	7/17/1992 - 09/20/1999									
MW3										
MW4	03/30/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/28/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	08/31/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	12/11/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/07/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	11/01/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/27/11	d	---	---	---	---	---	---	---	---
MW4	11/23/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/24/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	10/31/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	05/03/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW4	11/09/13	---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW4	05/12/14	---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	<1.0
MW4	11/19/14	---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
<b>MW4</b>	<b>05/13/15</b>	---	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;10</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	---	---
MW5	03/30/09	---	<12	17	<12	450	<12	<12	---	---
MW5	05/28/09	---	<25	<25	<25	530	<25	<25	---	---
MW5	08/31/09	---	<100	<100	<100	<1,000	<100	<100	---	---
MW5	12/11/09	---	<100	<100	<100	2,000	<100	<100	---	---
MW5	05/07/10	---	<25	<25	<25	400	<25	<25	---	---
MW5	11/01/10	---	<50	<50	<50	1,500	<50	<50	---	---
MW5	05/27/11	d	---	---	---	---	---	---	---	---
MW5	11/23/11	---	<50	<50	<50	<500	<50	<50	---	---
MW5	05/24/12	---	<50	<50	<50	1,400	<50	<50	---	---
MW5	10/31/12	---	<50	<50	<50	730	<50	<50	---	---
MW5	05/03/13	---	<20	<20	<20	590	<20	<20	---	---
MW5	11/09/13	---	<5.0	<5.0	<5.0	1,100	<5.0	<5.0	---	---
MW5	05/12/14	---	<5.0	<5.0	<5.0	1,000	<5.0	<5.0	---	<10
MW5	11/19/14	---	<2.5	<2.5	<2.5	600	<2.5	<2.5	---	---
<b>MW5</b>	<b>05/13/15</b>	---	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>950</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	---	---
MW6	03/30/09	---	<0.50	<0.50	1.3	410	<0.50	0.82	---	---
MW6	05/28/09	---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	08/31/09	---	<100	<100	<100	1,100	<100	<100	---	---
MW6	12/11/09	---	<100	<100	<100	2,600	<100	<100	---	---
MW6	05/07/10	---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	11/01/10	---	<50	<50	<50	2,400	<50	<50	---	---
MW6	05/27/11	d	---	---	---	---	---	---	---	---
MW6	11/23/11	---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	05/24/12	---	<100	<100	<100	2,700	<100	<100	---	---
MW6	10/31/12	---	<100	<100	<100	<1,000	<100	<100	---	---
MW6	05/02/13	---	<40	<40	<40	570	<40	<40	---	---
MW6	11/09/13	---	<40	<40	<40	2,100	<40	<40	---	---
MW6	05/12/14	---	<5.0	<5.0	<5.0	1,700	<5.0	<5.0	---	<10
MW6	11/19/14	---	<10	<10	<10	2,100	<10	<10	---	---
<b>MW6</b>	<b>05/13/15</b>	---	<b>&lt;10</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>2,400</b>	<b>&lt;10</b>	<b>&lt;10</b>	---	---

**TABLE 4 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,  
FORMER EXXON SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA**

Well Number	Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
MW7	03/30/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW7	05/28/09	---	<1.0	<1.0	<1.0	<10	<1.0	<1.0	---	---
MW7	08/31/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW7	12/11/09	---	<0.50	<0.50	<0.50	12	<0.50	<0.50	---	---
MW7	05/07/10	---	<0.50	<0.50	<0.50	130	<0.50	<0.50	---	---
MW7	11/01/10	---	<2.5	<2.5	<2.5	27	<2.5	<2.5	---	---
MW7	05/27/11	d	---	---	---	---	---	---	---	---
MW7	11/23/11	---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---
MW7	05/24/12	d	---	---	---	---	---	---	---	---
MW7	10/31/12	---	<5.0	<5.0	<5.0	<50	<5.0	<5.0	---	---
MW7	05/02/13	---	<5.0	<5.0	<5.0	57	<5.0	<5.0	---	---
MW7	11/09/13	---	<10	<10	<10	<200	<10	<10	---	---
MW7	05/12/14	---	<10	<10	<10	<200	<10	<10	---	<20
MW7	11/19/14	---	<12	<12	<12	<250	<12	<12	---	---
<b>MW7</b>	<b>05/13/15</b>	---	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;20</b>	<b>&lt;400</b>	<b>&lt;20</b>	<b>&lt;20</b>	---	---
MW8	03/30/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/28/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	08/31/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	12/11/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/07/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/01/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/27/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/23/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/24/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	10/31/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	05/02/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW8	11/09/13	---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
MW8	05/12/14	---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	<1.0
MW8	11/19/14	---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
<b>MW8</b>	<b>05/13/15</b>	---	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;10</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	---	---
MW9	03/30/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/28/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	08/31/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	12/11/09	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/07/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/01/10	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/27/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/23/11	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/24/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	10/31/12	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	05/02/13	---	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	---	---
MW9	11/09/13	d	---	Well inaccessible.	---	---	---	---	---	---
MW9	11/19/14	---	<0.50	<0.50	<0.50	<10	<0.50	<0.50	---	---
<b>MW9</b>	<b>05/13/15</b>	---	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;10</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	---	---
RW1	05/24/12	---	<50	<50	<50	1,900	<50	<50	---	---
RW1	10/31/12	d	---	---	---	---	---	---	---	---
RW1	05/03/13	---	<40	<40	<40	880	<40	<40	---	---
RW1	11/09/13	---	<10	<10	<10	1,100	<10	<10	---	---
RW1	05/12/14	---	<10	<10	<10	840	<10	<10	---	<20
RW1	11/19/14	---	<10	<10	<10	1,300	<10	<10	---	<20
<b>RW1</b>	<b>05/13/15</b>	---	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	<b>880</b>	<b>&lt;5.0</b>	<b>&lt;5.0</b>	---	---

TABLE 4 GROUNDWATER ANALYTICAL RESULTS FOR DETECTED VOCs,  
FORMER EXXON SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Depth (feet)	EDB (µg/L)	1,2-DCA (µg/L)	TAME (µg/L)	TBA (µg/L)	ETBE (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Naphthalene (µg/L)
Grab Groundwater Samples										
Pit Water	06/14/02	11.5a	---	---	---	---	---	---	---	---
UST Pit	06/19/02	13.5a	---	---	---	---	---	---	---	---
W-38-B11	11/14/07	38	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<50	---
W-15-B12	11/13/07	15	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<500	---
W-40-B13	11/12/07	40	<0.50	<0.50	<0.50	<10	<0.50	<0.50	<50	---
W-15-B14	11/13/07	15	<1.0	<1.0	<1.0	<20	<1.0	<1.0	<100	---
W-38-B15	11/15/07	38	<25	<25	<25	1,900	<25	<25	<2,500	---
W-40-B16	11/15/07	40	<0.50	<0.50	<0.50	<10	<0.50	<0.50	85	---
W-37-B17	11/13/07	37	<0.50	<0.50	<0.50	58	<0.50	<0.50	<50	---
W-38-B18	11/12/07	38	<12	<12	<12	<250	<12	<12	<1,200	---
W-35-B19	03/03/09	35	<50	<50	<50	<500	<50	<50	<5,000	---
W-35-B20	03/03/09	35	<0.50	<0.50	<0.50	12	<0.50	<0.50	<50	---
W-35-B21	03/03/09	35	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<50	---

EDB 1,2-Dibromoethane analyzed using EPA Method 8260B.

1,2-DCA 1,2-Dichloroethane analyzed using EPA Method 8260B.

TBA Tertiary butyl alcohol analyzed using EPA Method 8260B.

TAME Tertiary amyl methyl ether analyzed using EPA Method 8260B.

ETBE Ethyl tertiary butyl ether analyzed using EPA Method 8260B.

DIPE Di-isopropyl ether analyzed using EPA Method 8260B.

Ethanol Ethanol analyzed using EPA Method 8260B.

µg/L Micrograms per liter.

--- Not sampled/Not analyzed/Not measured/Not applicable.

a Approximate depth to groundwater surface at time of sampling.

d Well inaccessible.

Notes: Data prior to 1999 provided by EA Engineering, Science, and Technology, data prior to 2013 provided by Cardno ERI.

B Analyte was present in the associated method blank.

J Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

QO Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.

TABLE 5 NATURAL ATTENUATION PARAMETER ANALYTICAL RESULTS,  
FORMER MOBIL SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Date	Laboratory Parameters					Field Parameters							
		Alkalinity as CaCO <sub>3</sub>	Ferrous Iron (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	DO (mg/L)	Methane (µg/L)	Temperature (Celsius)	pH	Total EC (µS/cm)	Dissolved Solids (mg/L)	ORP (mV)	DO (mg/L)	
MW4	05/13/15	a	172	<0.100	68	2.4	--	0.173 J	18.1	7.12	584.1	645.6	--	5.11
MW5	05/13/15	a	324	2.15	32	0.76	--	28.1	17.8	7.03	870.1	593.8	--	3.98
MW6	05/13/15	a	427	<0.100	42	0.35	--	5.09	18.0	7.00	945.4	660.1	--	4.32
MW7	05/13/15	a	254	<0.100	61	1.6	--	1.67	18.5	7.16	719.1	510.2	--	4.34
MW8	05/13/15	a	208	<0.100	42	7.3	--	0.983 J	17.7	7.16	595.3	410.1	--	5.07
MW9	05/13/15	a	252	<0.100	41	6.0	--	0.0530	17.9	7.09	835.3	582.4	--	4.79
RW1	05/13/15	a	359	<0.100	43	0.77	--	1.85	18.4	7.05	849.1	590.7	--	4.11

DO Dissolved oxygen.

ORP Oxidation/reduction potential.

EC Conductivity.

µS/cm MicroSiemens per centimeter.

µg/L Micrograms per liter.

mg/L Milligrams per liter.

mV Millivolts.

-- Not sampled or not analyzed.

a Well purged prior to sampling.

<0.100 Concentration not detected above reporting limit (e.g. Reporting limit is 0.100 µg/L).

TABLE 6 GROUNDWATER MONITORING PLAN,  
FORMER EXXON SERVICE STATION 70234,  
3450 35TH AVENUE, OAKLAND, CALIFORNIA

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency			
		BTEX	TPH-g	MTBE	TBA
MW4	SA	SA	SA	SA	SA
MW5	SA	SA	SA	SA	SA
MW6	SA	SA	SA	SA	SA
MW7	SA	SA	SA	SA	SA
MW8	SA	SA	SA	SA	SA
MW9	SA	SA	SA	SA	SA
RW1	SA	SA	SA	SA	SA

Notes:

BTEX Benzene, toluene, ethylbenzene, and xylenes.

TPH-g Total Petroleum Hydrocarbons as gasoline.

MTBE Methyl tertiary butyl ether.

TBA Tertiary butyl alcohol.

SA Semiannually (performed during the second and fourth quarters of each year).