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By Alameda County Environmental Health at 5:00 pm, Jul 31, 2013



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Project Manager
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July 31, 2013

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

Re: **Unocal No. 4625 (351641)**
3070 Fruitvale Avenue, Oakland, California
ACEH Fuel Leak Case No. RO0000298
GeoTracker Global ID T0600101467

I have reviewed the attached report dated July 31, 2013.

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,

A handwritten signature in blue ink, appearing to read "T. Bishop".

Tim Bishop
Project Manager

Attachment: First Semi-Annual 2013 Groundwater Monitoring Report by AECOM



AECOM
10461 Old Placerville Road
Suite 170
Sacramento, CA 95827
www.aecom.com

916 361 6400 tel
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July 31, 2013

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

Subject: First Semi-Annual 2013 Groundwater Monitoring Report
Unocal No. 4625 (351641)
3070 Fruitvale Avenue, Oakland, California
Fuel Leak Case RO0000298

Dear Mr. Nowell,

On behalf of Chevron Environmental Management Company, for itself and as Attorney-in-Fact for Union Oil Company of California (hereinafter "EMC"), AECOM has been authorized to prepare the first semi-annual 2013 groundwater monitoring report for the site located at 3070 Fruitvale Avenue in Oakland, California (site) (**Figure 1**). The locations of former and current site features are illustrated on **Figure 2**. Semi-annual groundwater monitoring is conducted to evaluate the distribution of petroleum hydrocarbon constituents in groundwater beneath the site. Groundwater sampling was performed by Gettler Ryan Inc. of Dublin, California. This report summarizes sample results collected from wells associated with the site during the first semi-annual sampling event in June 2013

Groundwater Monitoring Field Data

The depth to groundwater was measured in 10 monitoring wells (MW-1 through MW-9, and USTW) at the site on June 26, 2013, and these depths were converted to groundwater elevations for all wells except USTW (**Table 1**). Copies of the groundwater gauging logs are included in **Attachment A**. Groundwater elevation data from well MW-7 were not used in contouring because it is screened in the deeper aquifer. The groundwater flow direction was calculated to flow to the west/southwest with an average hydraulic gradient of approximately 0.03 feet per foot (**Figure 2**). The depth to groundwater at the site ranged from 7.66 to 10.25 feet below the top of well casings (126.52 to 130.29 feet above mean sea level).

Groundwater Sampling and Analytical Results

Groundwater samples were collected from monitoring wells MW-1 through MW-9 on June 26, 2013, after first purging a minimum of three well volumes at each well. Temperature, pH, and electrical conductivity readings were recorded during purging, and copies of those purge logs are presented in **Attachment A**. Laboratory analyses of the groundwater samples were performed by BC Laboratories, Inc. (BC Labs) of Bakersfield, California. The BC Labs analytical report dated July 12, 2013, is included as **Attachment B**. Groundwater samples were analyzed for the following based on historical trends at each monitoring well (not all wells were analyzed for all analytes listed):

- Total petroleum hydrocarbons (TPH) as diesel (TPH-d) by United States Environmental Protection Agency (EPA) Method 8015B/TPHd;
- Total oil and grease (TOG) by EPA Method 1664A HEM;
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270C;
- Total chromium by EPA Method 6010B;

- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260B;
- TPH as gasoline (TPH-g) by method Luft-GC/MS (TPH-g is noted as total purgeable petroleum hydrocarbons [TPPH] by the laboratory);
- Volatile organic compounds (VOCs) by 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 this semi-annual groundwater monitoring event are consistent with previous reporting periods (**Table 1, Table 2, and Figure 2**). The following presents a brief summary of the analytical sample results:

- TPH-d, ETBE, DIPE, TAME, EDB, EDC, ethanol, TOG, and SVOCs were not detected above the laboratory practical quantitation limit in any of the samples analyzed.
- Total chromium was detected for MW-3 at a concentration of 85 micrograms per liter ($\mu\text{g/L}$).
- MTBE was detected for three wells, MW-2, MW-5, and MW-6, at 2.1 $\mu\text{g/L}$, 9.7 $\mu\text{g/L}$, and 3.4 $\mu\text{g/L}$, respectively.
- Monitoring well MW-5 continues to have concentrations of TPH-g and BTEX.
- TBA was detected for only MW-5 and MW-6 at concentrations of 22 $\mu\text{g/L}$ and 11 $\mu\text{g/L}$, respectively.

A summary of historical groundwater analytical data through June 2013 is presented in **Tables 3 and 4**.

Approximately 74.5 gallons of purge water was generated during the first semi-annual 2013 groundwater monitoring event. The purge water and decontamination water generated during sampling activities was transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.

Conclusions and Recommendations

The sample results from the groundwater monitoring activities at the site indicate the following:

- Concentrations of fuel constituents remain localized around MW-5 and MW-6 in the western portion of the site.
- Fuel constituents have not been detected for off-site monitoring wells, which supports the localization of groundwater impacts on-site.
- No impacts have been observed for the deep groundwater monitoring well, MW-7, since 1998.

AECOM will coordinate monitoring and sampling activities as per the established schedule. AECOM will submit semi-annual (second and fourth quarter) groundwater monitoring and sampling reports.

Future Activities

Groundwater Monitoring

AECOM will coordinate monitoring and sampling activities as per the established schedule. AECOM will submit semi-annual (second and fourth quarter) groundwater monitoring and sampling reports.

Additional Activity

AECOM will submit a low-threat closure request that includes a conceptual site model in the third quarter of 2013.

Remarks/Signatures

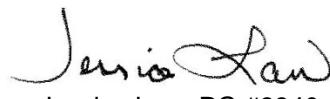
The interpretations in this report represent AECOM's professional opinions and are based, in part, on the information supplied by Gettler-Ryan Inc. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices 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) 361-6400.

Sincerely,



James Harms
Project Manager



Jessica Law
Jessica Law, PG #8840
Project Geologist



cc: Mr. Tim Bishop, EMC (via electronic copy)
Jamee Inc., property owner (via paper copy)

Enclosures:

Tables

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Figures

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| Figure 1 | Site Location Map |
| Figure 2 | Groundwater Elevation Contour Map |
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Attachments

- | | |
|--------------|--|
| Attachment A | June 26, 2013, Groundwater Data Field Sheets |
| Attachment B | BC Labs Analytical Report #1313325 |

TABLES

Table 1
Current Groundwater Monitoring Data and Analytical Results
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X	COMMENTS
	(ft)		(ft)	(ft)	(ft)	(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
MW-1	137.57	06/26/2013	7.66	129.91	0	--	--	<50	<0.50	<0.50	<0.50	<1.0	
MW-2	139.85	06/26/2013	9.66	130.19	0	--	--	290	5.6	<0.50	<0.50	<1.0	
MW-3	138.89	06/26/2013	8.60	130.29	0	<5.0	<40	<50	<0.50	<0.50	<0.50	<1.0	
MW-4	137.81	06/26/2013	9.10	128.71	0	--	--	<50	<0.50	<0.50	<0.50	<1.0	
MW-5	137.35	06/26/2013	9.05	128.30	0	--	--	190	2.5	0.73	3.2	8.6	
MW-6	138.69	06/26/2013	9.05	129.64	0	--	--	<50	<0.50	<0.50	<0.50	<1.0	
MW-7	138.74	06/26/2013	9.08	129.66	0	--	--	<50	<0.50	<0.50	<0.50	<1.0	
MW-8	136.22	06/26/2013	9.70	126.52	0	--	--	<50	<0.50	<0.50	<0.50	<1.0	
MW-9	137.11	06/26/2013	10.25	126.86	0	--	--	<50	<0.50	<0.50	<0.50	<1.0	
USTW	--	06/26/2013	9.00	--	--	--	--	--	--	--	--	--	
QA	--	06/26/2013	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	

NOTES:

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

BTEX compounds analyzed by United States Environmental Protection Agency Method 8260B

TPH-d analyzed by United States Environmental Protection Agency Method 8015B/TPHd

TPH-g analyzed by Luft-GC/MS method.

TOG analyzed by Environmental Protection Agency Method 1664A HEM

ID = Identification

TOC = Top of casing

ft = Feet

DTW = Depth to water

GWE = Groundwater elevation

µg/L = Micrograms per liter

LNAPL = Light Non-Aqueous Phase Liquid

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

TPH-g = Total Petroleum Hydrocarbons as Gasoline

TPH-d = Total Petroleum Hydrocarbons as Diesel

TOG = Total Oil and Grease

Table 2
Current Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1	06/26/2013	<0.50	--	<250	--	--	--	<0.50	<0.50
MW-2	06/26/2013	2.1	--	<250	--	--	--	<0.50	<0.50
MW-3	06/26/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-4	06/26/2013	<0.50	--	<250	--	--	--	<0.50	<0.50
MW-5	06/26/2013	9.7	22	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-6	06/26/2013	3.4	11	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-7	06/26/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-8	06/26/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-9	06/26/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
QA	06/26/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50

NOTES:

Oxygenate compounds analyzed by United States Environmental Protection Agency Method 8260B

<# = Analyte not detected at or above indicated 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

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X
	(ft)		(ft)	(ft)	(ft)	(mg/L)	($\mu\text{g}/\text{L}$)					
MW-1	136.36	05/03/2000	11.81	124.55	0	--	--	ND ¹	ND	ND	ND	ND
	136.36	07/28/2000	7.79	128.57	0	--	--	ND ¹	ND	ND	ND	ND
	136.36	10/29/2000	7.90	128.46	0	--	--	62 ¹	ND	ND	ND	ND
	136.36	02/09/2001	7.95	128.41	0	--	--	ND ¹	ND	ND	ND	ND
	136.36	05/11/2001	7.22	129.14	0	--	--	ND ¹	ND	ND	ND	ND
	136.36	08/10/2001	8.47	127.89	0	--	--	<50 ¹	<0.50	<0.50	<0.50	<0.50
	136.36	11/07/2001	8.10	128.26	0	--	--	<50 ¹	<0.50	<0.50	<0.50	<0.50
	136.36	02/06/2002	6.84	129.52	0	--	--	<50 ¹	<0.50	<0.50	<0.50	<0.50
	136.36	05/08/2002	7.29	129.07	0	--	--	<50 ¹	<0.50	<0.50	<0.50	<0.50
	136.36	08/09/2002	8.20	128.16	0	--	--	57	<0.50	<0.50	<0.50	<1.0
	136.36	11/26/2002	7.78	128.58	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	02/14/2003	6.90	130.67	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	05/03/2003	7.36	130.21	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	08/01/2003	7.48	130.09	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	10/30/2003	8.74	128.83	0	--	--	300	35	41	21	71
	137.57	01/29/2004	6.72	130.85	0	--	--	74	<0.50	4.3	<0.50	<1.0
	137.57	05/27/2004	7.98	129.59	0	--	--	<50	<0.50	<0.50	<0.50	1
	137.57	08/31/2004	8.42	129.15	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	11/18/2004	6.91	130.66	0	--	--	<50	<0.50	<0.50	<0.50	1.4
	137.57	03/25/2005	6.23	131.34	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	06/22/2005	6.83	130.74	0	--	--	<50	<0.50	0.23J	<0.50	<1.0
	137.57	09/26/2005	7.97	129.60	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	12/20/2005	6.73	130.84	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	03/29/2006	6.41	131.16	0	--	--	79	1.3	<0.50	1.4	4.2
	137.57	06/12/2006	7.10	130.47	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	09/27/2006	7.85	129.72	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	137.57	12/27/2006	6.90	130.67	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	137.57	03/16/2007	7.07	130.50	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	137.57	06/27/2007	7.53	130.04	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	137.57	09/27/2007	8.42	129.15	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	137.57	12/26/2007	6.96	130.61	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	03/26/2008	7.08	130.49	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	06/17/2008	8.26	129.31	0	--	--	<50	<0.50	<0.50	<0.50	<1.0

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Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X
	(ft)		(ft)	(ft)	(ft)	(mg/L)	($\mu\text{g}/\text{L}$)					
MW-1	137.57	09/15/2008	8.75	128.82	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
(Continued)	137.57	12/30/2008	7.30	130.27	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	03/30/2009	6.42	131.15	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	06/25/2009	7.72	129.85	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	12/17/2009	7.21	130.36	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	06/29/2010	7.77	129.80	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	12/30/2010	6.65	130.92	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	06/10/2011	7.58	129.99	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	12/13/2011	7.55	130.02	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	06/04/2012	7.53	130.04	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.57	12/07/2012	6.19	131.38	0	-	-	<50	<0.50	<0.50	<0.50	<1.0
	137.57	06/26/2013	7.66	129.91	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
MW-2	138.64	05/03/2000	8.59	130.05	0	--	--	2400 ¹	53	ND	ND	240
	138.64	07/28/2000	9.95	128.69	0	--	--	2200 ¹	680	4.1	57	270
	138.64	10/29/2000	8.38	130.26	0	--	--	490 ¹	67	ND	23	22
	138.64	02/09/2001	8.41	130.23	0	--	--	ND ¹	3.1	ND	0.52	1.1
	138.64	05/11/2001	8.93	129.71	0	--	--	ND ¹	1.99	ND	ND	ND
	138.64	08/10/2001	10.68	127.96	0	--	--	96 ¹	20	<0.50	2.1	9.4
	138.64	11/07/2001	10.01	128.63	0	--	--	480 ¹	110	<1.0	26	42
	138.64	02/06/2002	8.10	130.54	0	--	--	69 ¹	13	<0.50	0.84	4.4
	138.64	05/08/2002	9.16	129.48	0	--	--	53 ¹	13	<0.50	1.2	1.5
	138.64	08/09/2002	10.39	128.25	0	--	--	140	20	<0.50	10	11
	138.64	11/26/2002	9.81	128.83	0	--	--	340	87	<0.50	33	23
	139.85	02/14/2003	8.19	131.66	0	--	--	130	12	<0.50	7.4	5.4
	139.85	05/03/2003	6.77	133.08	0	--	--	<50	2.5	<0.50	1.7	<1.0
	139.85	08/01/2003	9.63	130.22	0	--	--	270	55	<0.50	23	6
	139.85	10/30/2003	11.06	128.79	0	--	--	180	17	4.8	6.1	13
	139.85	01/29/2004	8.35	131.50	0	--	--	98	4.3	<0.50	1.5	3.6
	139.85	05/27/2004	9.66	130.19	0	--	--	58	1.2	<0.50	0.87	1.1
	139.85	08/31/2004	10.45	129.40	0	--	--	99	2.7	<0.50	1.8	2.8
	139.85	11/18/2004	8.21	131.64	0	--	--	220	2.4	<0.50	2.1	1.7
	139.85	03/25/2005	5.85	134.00	0	--	--	240	3.5	<0.50	4.4	6.5
	139.85	06/22/2005	8.21	131.64	0	--	--	56	1.1	<0.50	1.3	1.5

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X
	(ft)		(ft)	(ft)	(ft)	(mg/L)	($\mu\text{g}/\text{L}$)					
MW-2	139.85	09/26/2005	9.98	129.87	0	--	--	83	0.56	<0.50	0.86	<1.0
(Continued)	139.85	12/20/2005	6.59	133.26	0	--	--	63	2.6	<0.50	2.4	3.7
	139.85	03/29/2006	5.79	134.06	0	--	--	94	2	<0.50	1.7	2
	139.85	06/12/2006	8.72	131.13	0	--	--	140	1.1	<0.50	0.94	2.8
	139.85	09/27/2006	9.86	129.99	0	--	--	55	0.55	<0.50	0.8	<0.50
	139.85	12/27/2006	6.98	132.87	0	--	--	72	0.61	<0.50	0.52	<0.50
	139.85	03/16/2007	8.10	131.75	0	--	--	62	<0.50	<0.50	<0.50	<0.50
	139.85	06/27/2007	9.48	130.37	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	139.85	09/27/2007	10.50	129.35	0	--	--	280	0.65	<0.50	1.8	<0.50
	139.85	12/26/2007	7.84	132.01	0	--	--	64	<0.50	<0.50	<0.50	<1.0
	139.85	3/26/2008	8.75	131.10	0	--	--	64	<0.50	<0.50	<0.50	<1.0
	139.85	6/17/2008	10.19	129.66	0	--	--	56	<0.50	<0.50	<0.50	<1.0
	139.85	9/15/2008	10.79	129.06	0	--	--	74	<0.50	<0.50	<0.50	<1.0
	139.85	12/30/2008	8.36	131.49	0	--	--	52	<0.50	<0.50	<0.50	<1.0
	139.85	3/30/2009	8.11	131.74	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	139.85	6/25/2009	9.65	130.20	0	--	--	67	<0.50	<0.50	<0.50	<1.0
	139.85	12/17/2009	7.57	132.28	0	--	--	99	<0.50	<0.50	<0.50	<1.0
	139.85	6/29/2010	9.06	130.79	0	--	--	150	<0.50	<0.50	<0.50	<1.0
	139.85	12/30/2010	5.67	134.18	0	--	--	54	<0.50	<0.50	<0.50	<1.0
	139.85	06/10/2011	7.78	132.07	0	--	--	260	0.58	<0.50	<0.50	<1.0
	139.85	12/13/2011	9.32	130.53	0	--	--	470	<0.50	<0.50	<0.50	<1.0
	139.85	06/04/2012	9.12	130.73	0	--	--	460	<0.50	<0.50	<0.50	<1.0
	139.85	12/07/2012	5.87	133.98	0	-	-	<50	<0.50	<0.50	<0.50	<1.0
	139.85	06/26/2013	9.66	130.19	0	--	--	290	5.6	<0.50	<0.50	<1.0
MW-3	137.68	05/03/2000	7.60	130.08	0	--	93	ND ¹	ND	ND	ND	ND
	137.68	07/28/2000	8.82	128.86	0	--	ND	ND ¹	ND	ND	ND	ND
	137.68	10/29/2000	7.33	130.35	0	--	ND	ND ¹	ND	ND	ND	ND
	137.68	02/09/2001	7.40	130.28	0	--	72	ND ¹	ND	ND	ND	ND
	137.68	05/11/2001	7.90	129.78	0	--	ND	ND ¹	ND	ND	ND	ND
	137.68	08/10/2001	9.09	128.59	0	--	63	<50 ¹	<0.50	<0.50	<0.50	<0.50
	137.68	11/07/2001	9.03	128.65	0	--	88	<50 ¹	<0.50	<0.50	<0.50	<0.50
	137.68	02/06/2002	7.16	130.52	0	--	<310	<50 ¹	<0.50	<0.50	<0.50	<0.50
	137.68	05/08/2002	8.04	129.64	0	--	<53	<50 ¹	<0.50	<0.50	<0.50	<0.50

Table 3
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WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X
	(ft)		(ft)	(ft)	(ft)	(mg/L)	($\mu\text{g}/\text{L}$)					
MW-3	137.68	08/09/2002	9.27	128.41	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
(Continued)	137.68	11/26/2002	8.79	128.89	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	02/14/2003	7.18	131.71	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	05/03/2003	5.88	133.01	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	08/01/2003	8.52	130.37	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	10/30/2003	10.05	128.84	0	--	<50	<50	<50	0.62	0.83	<0.50	<1.0
138.89	01/29/2004	6.58	132.31	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	05/27/2004	8.51	130.38	0	--	--	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	08/31/2004	9.72	129.17	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	11/18/2004	7.20	131.69	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
-----Dupl	11/18/2004			0	--	--	--	--	--	--	--	--
138.89	03/25/2005	5.39	133.50	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	06/22/2005	7.31	131.58	0	--	--	<50	<50	<0.50	<0.50	<0.50	<1.0
-----Dupl	09/26/2005			0	--	--	--	--	<0.50	<0.50	<0.50	<0.50
138.89	09/26/2005	8.99	129.90	0	--	<200	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	12/20/2005	8.03	130.86	0	--	<200	<50	<50	<0.50	<0.50	<0.50	<1.0
-----Dupl	03/29/2006			0	--	--	--	--	<0.50	<0.50	<0.50	<1.0
138.89	03/29/2006	8.55	130.34	0	--	<200	<200	61	<0.50	<0.50	<0.50	<1.0
138.89	06/12/2006	7.70	131.19	0	--	<200	<50	<50	<0.50	<0.50	<0.50	<1.0
-----Dupl	06/12/2006			0	--	--	--	--	<0.50	<0.50	<0.50	<1.0
-----Dupl	09/27/2006			0	--	--	--	--	<0.50	<0.50	<0.50	<0.50
138.89	09/27/2006	8.87	130.02	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<0.50
138.89	12/27/2006	6.10	132.79	0	--	--	--	--	<0.50	<0.50	<0.50	<0.50
-----Dupl	12/27/2006			0	--	--	55	<50	<0.50	<0.50	<0.50	<1.0
138.89	03/16/2007	7.14	131.75	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
-----Dupl	03/16/2007			0	--	--	--	--	<0.50	<0.50	<0.50	<0.50
138.89	06/27/2007	8.58	130.31	0	--	63	<50	<50	<0.50	<0.50	<0.50	<0.50
138.89	09/27/2007	9.47	129.42	0	--	87	<50	<50	<0.50	<0.50	<0.50	<0.50
138.89	12/26/2007	7.00	131.89	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	03/26/2008	7.77	131.12	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	06/17/2008	9.15	129.74	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	09/15/2008	9.79	129.10	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	12/30/2008	7.24	131.65	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0
138.89	03/30/2009	7.04	131.85	0	--	<50	<50	<50	<0.50	<0.50	<0.50	<1.0

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WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X
	(ft)		(ft)	(ft)	(ft)	(mg/L)	($\mu\text{g}/\text{L}$)					
MW-3	138.89	06/25/2009	8.60	130.29	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
(Continued)	138.89	12/17/2009	6.58	132.31	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
	138.89	06/29/2010	7.98	130.91	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
	138.89	12/30/2010	5.12	133.77	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
	138.89	06/10/2011	6.78	132.11	0	<5.0	<40	<50	<0.50	<0.50	<0.50	<1.0
	138.89	12/13/2011	8.32	130.57	0	<5.0	<40	<50	<0.50	<0.50	<0.50	<1.0
	138.89	06/04/2012	8.00	130.89	0	<5.0	<40	<50	<0.50	<0.50	<0.50	<1.0
	138.89	12/07/2012	5.39	133.50	0	<5.0	<40	<50	<0.50	<0.50	<0.50	<1.0
	138.89	06/26/2013	8.60	130.29	0	<5.0	<40	<50	<0.50	<0.50	<0.50	<1.0
MW-4	136.60	05/03/2000	6.48	130.12	0	--	--	ND ¹	ND	ND	ND	ND
	136.60	07/28/2000	7.55	129.05	0	--	--	ND ¹	ND	ND	ND	ND
	136.60	10/29/2000	6.12	130.48	0	--	--	ND ¹	ND	ND	ND	ND
	136.60	02/09/2001	6.14	130.46	0	--	--	ND ¹	ND	ND	ND	ND
	136.60	05/11/2001	7.51	129.09	0	--	--	<50 ¹	ND	ND	ND	ND
	136.60	08/10/2001	8.66	127.94	0	--	--	<50 ¹	<0.50	<0.50	<0.50	<0.50
	136.60	11/07/2001	7.92	128.68	0	--	--	<50 ¹	<0.50	<0.50	<0.50	<0.50
	136.60	02/06/2002	7.18	129.42	0	--	--	<50 ¹	<0.50	<0.50	<0.50	<0.50
	136.60	05/08/2002	6.86	129.74	0	--	--	--	<0.50	<0.50	<0.50	<0.50
	136.60	08/09/2002	7.67	128.93	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.60	11/26/2002	8.08	128.52	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	02/14/2003	7.43	130.38	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	05/03/2003	6.05	131.76	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	08/01/2003	8.21	129.60	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	10/30/2003	9.04	128.77	0	--	--	<50	1.1	2.3	2.2	7
	137.81	01/29/2004	8.22	129.59	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	05/27/2004	7.43	130.38	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	08/31/2004	8.35	129.46	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	11/18/2004	8.26	129.55	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	03/25/2005	4.40	133.41	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	06/22/2005	8.44	129.37	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	09/26/2005	7.93	129.88	0	--	--	<50	0.51	<0.50	0.53	2.3
	137.81	12/20/2005	5.65	132.16	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	03/29/2006	5.15	132.66	0	--	--	<50	<0.50	<0.50	<0.50	<1.0

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WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X
	(ft)		(ft)	(ft)	(ft)	(mg/L)	($\mu\text{g}/\text{L}$)					
MW-4	137.81	06/12/2006	5.68	132.13	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
(Continued)	137.81	09/27/2006	7.52	130.29	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	137.81	12/27/2006	6.95	130.86	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	137.81	03/16/2007	7.20	130.61	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	137.81	06/27/2007	7.68	130.13	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	137.81	09/27/2007	9.01	128.80	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	137.81	12/26/2007	5.98	131.83	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	03/26/2008	8.83	128.98	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	06/17/2008	9.05	128.76	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	09/15/2008	9.03	128.78	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	12/30/2008	8.22	129.59	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	03/30/2009	8.14	129.67	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	06/25/2009	8.10	129.71	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	12/17/2009	7.08	130.73	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	06/29/2010	6.94	130.87	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	12/30/2010	7.82	129.99	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	06/10/2011	6.95	130.86	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	12/13/2011	8.72	129.09	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	06/04/2012	9.13	128.68	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.81	12/07/2012	7.89	129.92	0	-	-	<50	<0.50	<0.50	<0.50	<1.0
	137.81	06/26/2013	9.10	128.71	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
MW-5	137.66	11/26/2002	9.89	127.77	0	--	--	2500	350	39	32	640
	137.66	2/14/2003	8.65	129.01	0	--	--	6600	920	210	430	1300
	137.66	5/3/2003	8.23	129.43	0	--	--	33000	2400	2200	2000	7600
	137.66	8/1/2003	9.63	128.03	0	--	--	14000	880	130	630	2000
	137.66	10/30/2003	10.58	127.08	0	--	--	1400	75	43	39	140
	137.66	1/29/2004	8.70	128.96	0	--	--	6300	750	56	400	1000
	137.66	5/27/2004	9.59	128.07	0	--	--	4600	260	15	300	840
	137.66	8/31/2004	10.05	127.61	0	--	--	1500	53	<2.5	48	49
	137.66	11/18/2004	8.54	129.12	0	--	--	22000	1300	900	1100	4600
	137.66	3/25/2005	7.12	130.54	0	--	--	53000	1400	660	1600	6400
	137.66	6/22/2005	8.62	129.04	0	--	--	5100	240	110	320	1100
	137.66	9/26/2005	9.70	127.96	0	--	--	2500	81	<0.50	85	200

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WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X
	(ft)		(ft)	(ft)	(ft)	(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-5	137.66	12/20/2005	8.23	129.43	0	--	--	3800	220	42	240	620
(Continued)	137.66	3/29/2006	6.70	130.96	0	--	--	7100	520	150	470	1500
	137.66	6/12/2006	8.68	128.98	0	--	--	7500	290	97	500	1600
	137.66	9/27/2006	9.45	128.21	0	--	--	2200	55	<0.50	85	170
	137.66	12/27/2006	7.57	130.09	0	--	--	13000	560	160	750	1900
	137.66	3/16/2007	8.10	129.56	0	--	--	8000	340	62	400	700
	137.66	6/27/2007	9.56	128.10	0	--	--	8900	330	14	690	1400
	137.35	9/27/2007	9.85	127.50	0	--	--	1300	31	<0.50	47	23
	137.35	12/26/2007	8.99	128.36	0	--	--	5700	410	44	470	760
	137.35	3/26/2008	9.22	128.13	0	--	--	5400	360	<5.0	420	350
	137.35	6/17/2008	9.67	127.68	0	--	--	2000	160	<0.50	99	64
	137.35	9/15/2008	10.09	127.26	0	--	--	230	5.3	<0.50	4.5	2.9
	137.35	12/30/2008	8.14	129.21	0	--	--	5700	230	32	350	650
	137.35	3/30/2009	8.01	129.34	0	--	--	2600	140	10	180	280
	137.35	6/25/2009	9.00	128.35	0	--	--	1400	40	1.3	71	96
	137.35	12/17/2009	7.62	129.73	0	--	--	12000	540	94	820	1900
	137.35	6/29/2010	8.82	128.53	0	--	--	2200	77	5.2	150	290
	137.35	12/30/2010	6.15	131.20	0	--	--	7400	330	110	550	1300
	137.35	06/10/2011	7.6	129.75	0	--	--	5,500	180	38	410	1,000
	137.35	12/13/2011	8.98	128.37	0	--	--	1,700	53	3	100	86
	137.35	06/04/2012	8.5	128.85	0	--	--	1,800	32	1	79	53
	137.35	12/07/2012	6.37	130.98	0	-	-	3,300	92	60	260	590
	137.35	06/26/2013	9.05	128.30	0	--	--	190	2.5	0.73	3.2	8.6
MW-6	138.88	11/26/2002	9.19	129.69	0	--	--	11000	1200	2000	400	2300
	138.88	2/14/2003	7.76	131.12	0	--	--	13000	2300	1900	560	2300
	138.88	5/3/2003	6.62	132.26	0	--	--	4300	1000	640	260	990
	138.88	8/1/2003	9.05	129.83	0	--	--	16000	2600	2300	740	2900
	138.88	10/30/2003	10.43	128.45	0	--	--	2900	420	260	120	480
	138.88	1/29/2004	7.81	131.07	0	--	--	400	58	21	14	65
	138.88	5/27/2004	9.11	129.77	0	--	--	580	58	14	20	69
	138.88	8/31/2004	9.76	129.12	0	--	--	660	77	7	19	65
	138.88	11/18/2004	7.68	131.20	0	--	--	660	92	19	20	80
	138.88	3/25/2005	5.83	133.05	0	--	--	870	82	13	15	73

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WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X
	(ft)		(ft)	(ft)	(ft)	(mg/L)	($\mu\text{g}/\text{L}$)					
MW-6	138.88	6/22/2005	7.83	131.05	0	--	--	480	84	2.4	23	72
(Continued)	138.88	9/26/2005	9.50	129.38	0	--	--	440	72	0.65	12	52
	138.88	12/20/2005	6.91	131.97	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	138.88	3/29/2006	6.48	132.40	0	--	--	430	61	13	11	41
	138.88	6/12/2006	8.10	130.78	0	--	--	1000	190	8	28	130
	138.88	9/27/2006	9.25	129.63	0	--	--	330	19	0.87	5.4	29
	138.88	12/27/2006	6.88	132.00	0	--	--	220	13	2.4	3.8	9.6
	138.88	3/16/2007	7.73	131.15	0	--	--	160	22	8.7	3.5	12
	138.88	6/27/2007	8.98	129.90	0	--	--	310	2.9	<0.50	1.4	2
	138.69	9/27/2007	9.82	128.87	0	--	--	500	14	<0.50	7.3	3.5
	138.69	12/26/2007	7.44	131.25	0	--	--	64	4.8	1.2	1.6	2.8
	138.69	3/26/2008	8.32	130.37	0	--	--	200	21	1.1	4	2.6
	138.69	6/17/2008	9.63	129.06	0	--	--	180	7.1	<0.50	2.8	2
	138.69	9/15/2008	10.08	128.61	0	--	--	150	0.9	<0.50	<0.50	<1.0
	138.69	12/30/2008	7.62	131.07	0	--	--	<50	4.2	0.83	0.98	2
	138.69	3/30/2009	7.71	130.98	0	--	--	58	6.5	0.61	1.1	1.8
	138.69	6/25/2009	9.09	129.60	0	--	--	280	3.5	0.54	3	3.8
	138.69	12/17/2009	7.12	131.57	0	--	--	77	1.4	1.4	ND<0.50	1.4
	138.69	6/29/2010	8.58	130.11	0	--	--	91	2.3	<0.50	<0.50	<1.0
	138.69	12/30/2010	5.43	133.26	0	--	--	<50	3	3	0.73	2.8
	138.69	06/10/2011	7.35	131.34	0	--	--	380	14	8.9	5.6	13
	138.69	12/13/2011	8.83	129.86	0	--	--	59	<0.50	<0.50	<0.50	<1.0
	138.69	06/04/2012	8.57	130.12	0	--	--	93	<0.50	<0.50	<0.50	<1.0
	138.69	12/07/2012	5.49	133.20	0	-	-	62	3.5	3.1	1.0	4.1
	138.69	06/26/2013	9.05	129.64	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
MW-7	138.74	9/27/2007	9.62	129.12	0	--	--	240	6.7	<0.50	24	5
	138.74	12/26/2007	8.60	130.14	0	--	--	73	<0.50	<0.50	9.5	<1.0
	138.74	3/26/2008	13.70	125.04	0	--	--	<50	<0.50	<0.50	0.7	<1.0
	138.74	6/17/2008	9.81	128.93	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	138.74	9/15/2008	10.57	128.17	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	138.74	12/30/2008	10.21	128.53	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	138.74	3/30/2009	9.22	129.52	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	138.74	6/25/2009	8.97	129.77	0	--	--	<50	<0.50	<0.50	<0.50	<1.0

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X
	(ft)		(ft)	(ft)	(ft)	(mg/L)	($\mu\text{g}/\text{L}$)					
MW-7	138.74	12/17/2009	8.80	129.94	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
(Continued)	138.74	6/29/2010	8.64	130.10	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	138.74	12/30/2010	8.23	130.51	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	138.74	06/10/2011	8.55	130.19	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	138.74	12/13/2011	9.17	129.57	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	138.74	06/04/2012	8.74	130.00	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	138.74	12/07/2012	8.92	129.82	0	-	-	<50	<0.50	<0.50	<0.50	<1.0
	138.74	06/26/2013	9.08	129.66	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
MW-8	136.22	9/27/2007	10.02	126.20	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	136.22	12/26/2007	9.02	127.20	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	3/26/2008	9.41	126.81	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	6/17/2008	10.00	126.22	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	9/15/2008	10.29	125.93	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	12/30/2008	9.13	127.09	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	3/30/2009	9.13	127.09	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	6/25/2009	9.55	126.67	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	12/17/2009	8.84	127.38	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	6/29/2010	9.56	126.66	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	12/30/2010	7.57	128.65	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	06/10/2011	9.12	127.1	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	12/13/2011	9.65	126.57	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	06/04/2012	9.53	126.69	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	136.22	12/07/2012	7.85	128.37	0	-	-	<50	<0.50	<0.50	<0.50	<1.0
	136.22	06/26/2013	9.70	126.52	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
MW-9	137.11	9/27/2007	10.60	126.51	0	--	--	<50	<0.50	<0.50	<0.50	<0.50
	137.11	12/26/2007	9.46	127.65	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.11	3/26/2008	9.89	127.22	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.11	6/17/2008	10.58	126.53	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.11	9/15/2008	10.89	126.22	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.11	12/30/2008	9.51	127.60	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.11	3/30/2009	9.57	127.54	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.11	6/25/2009	10.22	126.89	0	--	--	<50	<0.50	<0.50	<0.50	<1.0

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X
	(ft)		(ft)	(ft)	(ft)	(mg/L)	($\mu\text{g}/\text{L}$)					
MW-9	137.11	12/17/2009	9.27	127.84	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
(Continued)	137.11	6/29/2010	10.04	127.07	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.11	12/30/2010	8.03	129.08	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.11	06/10/2011	9.56	127.55	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.11	12/13/2011	10.15	126.96	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.11	06/04/2012	10.03	127.08	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	137.11	12/07/2012	8.32	128.79	0	-	-	<50	<0.50	<0.50	<0.50	<1.0
	137.11	06/26/2013	10.25	126.86	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
USTW	--	5/3/2000	8.00	--	0	--	--	--	--	--	--	--
	--	7/28/2000	9.28	--	0	--	--	--	--	--	--	--
	--	10/29/2000	7.75	--	0	--	--	--	--	--	--	--
	--	2/9/2001	6.14	--	0	--	--	--	--	--	--	--
	--	5/11/2001	7.96	--	0	--	--	--	--	--	--	--
	--	8/10/2001	9.54	--	0	--	--	--	--	--	--	--
	--	11/7/2001	9.33	--	0	--	--	--	--	--	--	--
	--	2/6/2002	8.08	--	0	--	--	--	--	--	--	--
	--	5/8/2002	8.51	--	0	--	--	--	--	--	--	--
	--	8/9/2002	9.56	--	0	--	--	--	--	--	--	--
	--	11/26/2002	9.16	--	0	--	--	--	--	--	--	--
	--	5/3/2003	6.25	--	0	--	--	--	--	--	--	--
	--	8/1/2003	8.99	--	0	--	--	--	--	--	--	--
	--	10/30/2003	10.44	--	0	--	--	--	--	--	--	--
	--	1/29/2004	6.52	--	0	--	--	--	--	--	--	--
	--	5/27/2004	8.98	--	0	--	--	--	--	--	--	--
	--	8/31/2004	9.75	--	0	--	--	--	--	--	--	--
	--	11/18/2004	7.39	--	0	--	--	--	--	--	--	--
	--	3/25/2005	5.01	--	0	--	--	--	--	--	--	--
	--	6/22/2005	7.63	--	0	--	--	--	--	--	--	--
	--	9/26/2005	9.45	--	0	--	--	--	--	--	--	--
	--	12/20/2005	5.35	--	0	--	--	--	--	--	--	--
	--	3/29/2006	4.83	--	0	--	--	--	--	--	--	--
	--	6/12/2006	8.05	--	0	--	--	--	--	--	--	--

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X
	(ft)		(ft)	(ft)	(ft)	(mg/L)	($\mu\text{g}/\text{L}$)					
USTW	--	9/27/2006	9.21	--	0	--	--	--	--	--	--	--
(Continued)	--	12/27/2006	6.37	--	0	--	--	--	--	--	--	--
--	3/16/2007	7.43	--	0	--	--	--	--	--	--	--	--
--	6/27/2007	8.92	--	0	--	--	--	--	--	--	--	--
--	9/27/2007	9.80	--	0	--	--	--	--	--	--	--	--
--	12/26/2007	9.72	--	0	--	--	--	--	--	--	--	--
--	3/26/2008	8.10	--	0	--	--	--	--	--	--	--	--
--	6/17/2008	9.59	--	0	--	--	--	--	--	--	--	--
--	9/15/2008	10.08	--	0	--	--	--	--	--	--	--	--
--	12/30/2008	7.34	--	0	--	--	--	--	--	--	--	--
--	3/30/2009	7.41	--	0	--	--	--	--	--	--	--	--
--	6/25/2009	8.99	--	0	--	--	--	--	--	--	--	--
--	12/17/2009	6.79	--	0	--	--	--	--	--	--	--	--
--	6/29/2010	8.42	--	0	--	--	--	--	--	--	--	--
--	12/30/2010	4.85	--	0	--	--	--	--	--	--	--	--
--	06/10/2011	7.11	--	0	--	--	--	--	--	--	--	--
--	12/13/2011	7.67	--	0	--	--	--	--	--	--	--	--
--	06/04/2012	7.32	--	0	--	--	--	--	--	--	--	--
-	12/7/2012	5.01	--	0	--	--	--	--	--	--	--	--
	06/26/2013	9.00	--	0	--	--	--	--	--	--	--	--

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	TOC*	DATE	DTW	GWE*	LNAPL	TOG	TPH-d	TPH-g	B	T	E	X
	(ft)		(ft)	(ft)		(mg/L)	($\mu\text{g}/\text{L}$)					

NOTES:

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

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

BTEX compounds analyzed by United States Environmental Protection Agency Method 8260B

TPH-d analyzed by United States Environmental Protection Agency Method 8015B/TPHd

TPH-g analyzed by Luft-GC/MS method.

TOG analyzed by Environmental Protection Agency Method 1664A HEM

ID = Identification

TOC = Top of casing

ft = Feet

fbg = feet below grade

DTW = Depth to water

GWE = Groundwater elevation

-- = Not available/Not analyzed

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

LNAPL = Light Non-Aqueous Phase Liquid

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

TPH-g = Total Petroleum Hydrocarbons as Gasoline

TPH-d = Total Petroleum Hydrocarbons as Diesel

TOG = Total Oil and Grease

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

¹ - TPHg analyzed with USEPA Method SW8015

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds and Total Chromium
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	Total Chromium (µg/L)
MW-1	05/03/2000	14 ²	--	--	--	--	--	--	--	--
	07/28/2000	19 ²	--	--	--	--	--	--	--	--
	10/29/2000	3.9 ²	--	--	--	--	--	--	--	--
	02/09/2001	9 ²	ND	ND	ND	ND	ND	ND	ND	--
	05/11/2001	16.3 ²	ND	ND	ND	ND	ND	ND	ND	--
	08/10/2001	19 ²	<100	<1000	<2.0	<2.0	<2.0	<2.0	<2.0	--
	11/07/2001	26 ²	<20	<500	<1.0	<1.0	<1.0	<1.0	<1.0	--
	02/06/2002	18 ²	<100	<500	<2.0	<2.0	<2.0	<2.0	<2.0	--
	05/08/2002	19 ²	<100	<500	<2.0	<2.0	<2.0	<2.0	<2.0	--
	08/09/2002	22	<100	<500	<2.0	<2.0	<2.0	<2.0	<2.0	--
	11/26/2002	23	<100	<500	<2.0	<2.0	<2.0	<2.0	<2.0	--
	02/14/2003	8.8	<100	<500	<2.0	<2.0	<2.0	<2.0	<2.0	--
	05/03/2003	3.4	<100	<500	<2.0	<2.0	<2.0	<2.0	<2.0	--
	08/01/2003	9.7	<100	<500	<2.0	<2.0	<2.0	<2.0	<2.0	--
	10/30/2003	8.5	<100	<500	<2.0	<2.0	<2.0	<2.0	<2.0	--
	01/29/2004	12	--	<500	--	--	--	--	--	--
	05/27/2004	16	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50	--
	08/31/2004	23	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50	--
	11/18/2004	7.2	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50	--
	03/25/2005	6.2	--	<50	--	--	--	--	--	--
	06/22/2005	11	--	<100	--	--	--	--	--	--
	09/26/2005	5.6	--	<100	--	--	--	--	--	--
	12/20/2005	3.2	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	03/29/2006	3.4	--	<250	--	--	--	--	--	--
	06/12/2006	1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	09/27/2006	<0.50	--	<250	--	--	--	--	--	--
	12/27/2006	<0.50	--	<250	--	--	--	--	--	--
	03/16/2007	<0.50	--	<250	--	--	--	--	--	--
	06/27/2007	<0.50	--	<250	--	--	--	--	--	--
	09/27/2007	<0.50	--	<250	--	--	--	--	--	--
	12/26/2007	<0.50	--	<250	--	--	--	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds and Total Chromium
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	Total Chromium (µg/L)
MW-1	03/26/2008	<0.50	--	<250	--	--	--	--	--	--
(Continued)	06/17/2008	<0.50	--	<250	--	--	--	--	--	--
	09/15/2008	<0.50	--	<250	--	--	--	--	--	--
	12/30/2008	<0.50	--	<250	--	--	--	--	--	--
	03/30/2009	<0.50	--	<250	--	--	--	--	--	--
	06/25/2009	<0.50	--	<250	--	--	--	--	--	--
	12/17/2009	<0.50	--	<250	--	--	--	--	--	--
	06/29/2010	<0.50	--	<250	--	--	--	<0.50	<0.50	--
	12/30/2010	<0.50	--	<250	--	--	--	<0.50	<0.50	--
	06/10/2011	<0.50	--	<250	--	--	--	<0.50	<0.50	--
	12/13/2011	<0.50	--	<250	--	--	--	--	--	--
	06/04/2012	<0.50	--	<250	--	--	--	<0.50	<0.50	--
	12/07/2012	<0.50	--	<250	--	--	--	<0.50	<0.50	--
	06/26/2013	<0.50	--	<250	--	--	--	<0.50	<0.50	--
MW-2	05/03/2000	ND ²	--	--	--	--	--	--	--	--
	07/28/2000	24 ²	--	--	--	--	--	--	--	--
	10/29/2000	ND ²	--	--	--	--	--	--	--	--
	02/09/2001	ND ²	--	--	--	--	--	--	--	--
	05/11/2001	ND ²	--	--	--	--	--	--	--	--
	08/10/2001	<5.0 ²	--	--	--	--	--	--	--	--
	11/07/2001	<10 ²	--	--	--	--	--	--	--	--
	02/06/2002	<5.0 ²	--	--	--	--	--	--	--	--
	05/08/2002	<5.0 ²	--	--	--	--	--	--	--	--
	08/09/2002	<2.0	--	--	--	--	--	--	--	--
	11/26/2002	<2.0	--	--	--	--	--	--	--	--
	02/14/2003	<2.0	--	--	--	--	--	--	--	--
	05/03/2003	<2.0	--	--	--	--	--	--	--	--
	08/01/2003	<2.0	--	<500	--	--	--	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds and Total Chromium
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	Total Chromium (µg/L)
MW-2	10/30/2003	<2.0	--	<500	--	--	--	--	--	--
(Continued)	01/29/2004	<2.0	--	<500	--	--	--	--	--	--
	05/27/2004	<0.50	--	<50	--	--	--	--	--	--
	08/31/2004	<0.50	--	<50	--	--	--	--	--	--
	11/18/2004	<0.50	--	<50	--	--	--	--	--	--
	03/25/2005	<0.50	--	<50	--	--	--	--	--	--
	06/22/2005	<0.50	--	<1000	--	--	--	--	--	--
	09/26/2005	<0.50	--	<1000	--	--	--	--	--	--
	12/20/2005	<0.50	--	<250	--	--	--	--	--	--
	03/29/2006	<0.50	--	<250	--	--	--	--	--	--
	06/12/2006	<0.50	--	<250	--	--	--	--	--	--
	09/27/2006	<0.50	--	<250	--	--	--	--	--	--
	12/27/2006	<0.50	--	<250	--	--	--	--	--	--
	03/16/2007	<0.50	--	<250	--	--	--	--	--	--
	06/27/2007	<0.50	--	<250	--	--	--	--	--	--
	09/27/2007	0.7	--	<250	--	--	--	--	--	--
	12/26/2007	0.56	--	<250	--	--	--	--	--	--
	3/26/2008	<0.50	--	<250	--	--	--	--	--	--
	6/17/2008	<0.50	--	<250	--	--	--	--	--	--
	9/15/2008	<0.50	--	<250	--	--	--	--	--	--
	12/30/2008	<0.50	--	<250	--	--	--	--	--	--
	3/30/2009	<0.50	--	<250	--	--	--	--	--	--
	6/25/2009	<0.50	--	<250	--	--	--	--	--	--
	12/17/2009	0.81	--	<250	--	--	--	--	--	--
	6/29/2010	0.86	--	<250	--	--	--	<0.50	<0.50	--
	12/30/2010	0.62	--	<250	--	--	--	<0.50	<0.50	--
	06/10/2011	1.7	--	<250	--	--	--	<0.50	<0.50	--
	12/13/2011	1.1	--	<250	--	--	--	--	--	--
	06/04/2012	3.9	--	<250	--	--	--	<0.50	<0.50	--
	12/07/2012	<0.50	--	<250	--	--	--	<0.50	<0.50	--
	06/26/2013	2.1	--	<250	--	--	--	<0.50	<0.50	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds and Total Chromium
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
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WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	Total Chromium (µg/L)
MW-3	05/03/2000	ND ²	<100	<500	<2.0	<2.0	<2.0	--	<2.0	ND
	07/28/2000	ND ²	--	<500	--	--	--	--	--	1800
	10/29/2000	ND ²	--	<500	--	--	--	--	--	ND
	02/09/2001	ND ²	--	<500	--	--	--	--	--	38
	05/11/2001	ND ²	--	<50	--	--	--	--	--	ND
	08/10/2001	<5.0 ²	--	<50	--	--	--	--	--	<10
	11/07/2001	<5.0 ²	--	<50	--	--	--	--	--	<10
	02/06/2002	<5.0 ²	--	<50	--	--	--	--	--	110
	05/08/2002	<5.0 ²	--	<100	--	--	--	--	--	37
	08/09/2002	<2.0	--	<1000	--	--	--	--	--	700
	11/26/2002	<2.0	--	<250	--	--	--	--	--	340
	02/14/2003	<2.0	--	<250	--	--	--	--	--	74
	05/03/2003	<2.0	--	<250	--	--	--	--	--	480
	08/01/2003	<2.0	--	<250	--	--	--	--	--	280
	10/30/2003	<5.0	--	<250	--	--	--	--	--	130
	01/29/2004	<2.0	--	<250	--	--	--	--	--	27
	05/27/2004	<0.50	--	<250	--	--	--	--	--	6.1
	08/31/2004	<5.0	--	<250	--	--	--	--	--	1000
	11/18/2004	<0.50	--	<250	--	--	--	--	--	<5.0
	11/18/2004	<0.50	--	--	--	--	--	--	--	--
	03/25/2005	0.97	--	<250	--	--	--	--	--	<5.0
	06/22/2005	<0.50	--	<250	--	--	--	--	--	24
	09/26/2005	<0.50	--	--	--	--	--	--	--	--
	09/26/2005	<0.50	--	<250	--	--	--	--	--	170
	12/20/2005	<0.50	--	<250	--	--	--	--	--	<10
	03/29/2006	0.54	--	--	--	--	--	--	--	--
	03/29/2006	0.54	--	<250	--	--	--	--	--	49
	06/12/2006	<0.50	--	<250	--	--	--	--	--	59
	06/12/2006	<0.50	--	--	--	--	--	--	--	--
	09/27/2006	<0.50	--	--	--	--	--	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds and Total Chromium
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	Total Chromium (µg/L)
MW-3	09/27/2006	<0.50	--	<250	--	--	--	--	--	15
(Continued)	12/27/2006	<0.50	--	<250	--	--	--	--	--	37
	12/27/2006	<0.50	--	--	--	--	--	--	--	--
	03/16/2007	<0.50	--	<250	--	--	--	--	--	50
	03/16/2007	<0.50	--	--	--	--	--	--	--	--
	06/27/2007	<0.50	--	<250	--	--	--	--	--	120
	09/27/2007	<0.50	--	<250	--	--	--	--	--	170
	12/26/2007	<0.50	--	<250	--	--	--	--	--	96
	03/26/2008	<0.50	--	<250	--	--	--	--	--	190
	06/17/2008	<0.50	--	<250	--	--	--	--	--	170
	09/15/2008	<0.50	--	<250	--	--	--	--	--	360
	12/30/2008	<0.50	--	<250	--	--	--	--	--	160
	03/30/2009	<0.50	--	<250	--	--	--	--	--	66
	06/25/2009	<0.50	--	<250	--	--	--	--	--	88
	12/17/2009	<0.50	--	<250	--	--	--	--	--	36
	06/29/2010	<0.50	--	<250	--	--	--	<0.50	<0.50	100
	12/30/2010	<0.50	--	<250	--	--	--	<0.50	<0.50	31
	06/10/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	81
	12/13/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<10
	06/04/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	34
	12/07/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	12
	06/26/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	85
MW-4	05/03/2000	ND ²	<100	--	<2.0	<2.0	<2.0	--	<2.0	--
	07/28/2000	ND ²	--	--	--	--	--	--	--	--
	10/29/2000	ND ²	--	--	--	--	--	--	--	--
	02/09/2001	ND ²	--	--	--	--	--	--	--	--
	05/11/2001	ND ²	--	--	--	--	--	--	--	--
	08/10/2001	<5.0 ²	--	--	--	--	--	--	--	--
	11/07/2001	<5.0 ²	--	--	--	--	--	--	--	--
	02/06/2002	<5.0 ²	--	--	--	--	--	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds and Total Chromium
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	Total Chromium (µg/L)
MW-4	05/08/2002	<5.0 ²	--	--	--	--	--	--	--	--
(Continued)	08/09/2002	<2.0	--	--	--	--	--	--	--	--
	11/26/2002	<2.0	--	--	--	--	--	--	--	--
	02/14/2003	<2.0	--	<500	--	--	--	--	--	--
	05/03/2003	<2.0	--	--	--	--	--	--	--	--
	08/01/2003	<2.0	--	<500	--	--	--	--	--	--
	10/30/2003	<2.0	--	<500	--	--	--	--	--	--
	01/29/2004	<2.0	--	<500	--	--	--	--	--	--
	05/27/2004	<0.50	--	<50	--	--	--	--	--	--
	08/31/2004	<0.50	--	<50	--	--	--	--	--	--
	11/18/2004	<0.50	--	<50	--	--	--	--	--	--
	03/25/2005	<0.50	--	<50	--	--	--	--	--	--
	06/22/2005	<0.50	--	<1000	--	--	--	--	--	--
	09/26/2005	<0.50	--	<1000	--	--	--	--	--	--
	12/20/2005	<0.50	--	<250	--	--	--	--	--	--
	03/29/2006	<0.50	--	<250	--	--	--	--	--	--
	06/12/2006	<0.50	--	<250	--	--	--	--	--	--
	09/27/2006	<0.50	--	<250	--	--	--	--	--	--
	12/27/2006	<0.50	--	<250	--	--	--	--	--	--
	03/16/2007	<0.50	--	<250	--	--	--	--	--	--
	06/27/2007	<0.50	--	<250	--	--	--	--	--	--
	09/27/2007	<0.50	--	<250	--	--	--	--	--	--
	12/26/2007	<0.50	--	<250	--	--	--	--	--	--
	03/26/2008	<0.50	--	<250	--	--	--	--	--	--
	06/17/2008	<0.50	--	<250	--	--	--	--	--	--
	09/15/2008	<0.50	--	<250	--	--	--	--	--	--
	12/30/2008	<0.50	--	<250	--	--	--	--	--	--
	03/30/2009	<0.50	--	<250	--	--	--	--	--	--
	06/25/2009	<0.50	--	<250	--	--	--	--	--	--
	12/17/2009	<0.50	--	<250	--	--	--	--	--	--
	06/29/2010	<0.50	--	<250	--	--	--	<0.50	<0.50	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds and Total Chromium
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
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WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	Total Chromium (µg/L)
MW-4 (Continued)	12/30/2010	<0.50	--	<250	--	--	--	<0.50	<0.50	--
	06/10/2011	<0.50	--	<250	--	--	--	<0.50	<0.50	--
	12/13/2011	<0.50	--	<250	--	--	--	--	--	--
	06/04/2012	<0.50	--	<250	--	--	--	<0.50	<0.50	--
	12/07/2012	<0.50	--	<250	--	--	--	<0.50	<0.50	--
MW-5	06/26/2013	<0.50	--	<250	--	--	--	<0.50	<0.50	--
	11/26/2002	470	<1000	<5000	<20	<20	<20	<20	<20	--
	2/14/2003	960	<1000	<5000	<20	<20	<20	<20	<20	--
	5/3/2003	1500	<1000	<50000	<20	<20	<20	<20	<20	--
	8/1/2003	630	<1000	<5000	<20	<20	<20	<20	<20	--
	10/30/2003	330	<500	<2500	<10	<10	<10	<10	<10	--
	1/29/2004	1100	<1000	<5000	<20	<20	<20	<20	<20	--
	5/27/2004	400	<5.0	<500	<5.0	<10	<5.0	<5.0	<5.0	--
	8/31/2004	250	<25	<25	<2.5	<5.0	<2.5	<2.5	<2.5	--
	11/18/2004	1100	140	<1000	<10	<20	<10	<10	<10	--
	3/25/2005	1000	<250	<2500	<25	<25	<25	<25	<25	--
	6/22/2005	420	16	<1000	<0.50	<0.50	<0.50	<0.50	<0.50	--
	9/26/2005	180	<10	<1000	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/20/2005	300	<500	<12000	<25	<25	<25	<25	<25	--
	3/29/2006	680	<100	<2500	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/12/2006	500	<100	<2500	<0.50	<0.50	<0.50	<0.50	<0.50	--
	9/27/2006	220	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/27/2006	580	93	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/16/2007	480	45	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/27/2007	370	51	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	9/27/2007	140	ND<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/26/2007	650	230	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/26/2008	500	230	<2500	<5.0	<5.0	<5.0	<5.0	<5.0	--
	6/17/2008	290	77	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	9/15/2008	99	32	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--

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WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	Total Chromium (µg/L)
MW-5 (Continued)	12/30/2008	150	300	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/30/2009	130	ND<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/25/2009	110	ND<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/17/2009	190	320	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/29/2010	88	110	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/30/2010	120	790	<2500	<5.0	<5.0	<5.0	<5.0	<5.0	--
	06/10/2011	170	160	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/13/2011	60	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	06/04/2012	84	79	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/07/2012	70	130	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
MW-6	06/26/2013	9.7	22	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	11/26/2002	490	<2000	<10000	<40	<40	<40	<40	<40	--
	2/14/2003	360	<2000	<10000	<40	<40	<40	<100	<40	--
	5/3/2003	300	<5000	<25000	<100	<100	<100	<80	<100	--
	8/1/2003	660	<4000	<20000	<80	<80	<80	<20	<80	--
	10/30/2003	450	<1000	<5000	<20	<20	<20	<2.0	<20	--
	1/29/2004	62	<100	<500	<2.0	<2.0	<2.0	<2.5	<2.0	--
	5/27/2004	410	<25	<250	<2.5	<5.0	<2.5	<2.5	<2.5	--
	8/31/2004	360	<25	<250	<2.5	<5.0	<2.5	<0.50	<2.5	--
	11/18/2004	130	8.1	<50	<0.50	<1.0	<0.50	<0.50	<0.50	--
	3/25/2005	90	45	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/22/2005	360	<10	<1000	<0.50	<0.50	<0.50	<0.50	<0.50	--
	9/26/2005	160	<10	<1000	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/20/2005	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/29/2006	130	<10	<250	<0.50	<0.50	<0.50	<2.5	<0.50	--
	6/12/2006	310	<50	<1200	<2.5	<2.5	<2.5	<0.50	<2.5	--
	9/27/2006	220	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/27/2006	75	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/16/2007	82	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/27/2007	370	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--

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MW-6 (Continued)	9/27/2007	190	110	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/26/2007	51	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/26/2008	97	14	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/17/2008	250	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	9/15/2008	200	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/30/2008	16	12	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/30/2009	9.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/25/2009	270	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/17/2009	16	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/29/2010	200	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/30/2010	3.9	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	06/10/2011	45	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/13/2011	12	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
MW-7	06/04/2012	82	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/07/2012	3.1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	06/26/2013	3.4	11	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	9/27/2007	16	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/26/2007	12	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/26/2008	7	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/17/2008	2.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	9/15/2008	1.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/30/2008	0.7	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/30/2009	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/25/2009	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/17/2009	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/29/2010	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/30/2010	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	06/10/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/13/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	06/04/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--

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WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	Total Chromium (µg/L)
MW-7	12/07/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
(Continued)	06/26/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
MW-8	9/27/2007	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/26/2007	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/26/2008	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/17/2008	<0.50	14	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	9/15/2008	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/30/2008	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/30/2009	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/25/2009	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/17/2009	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/29/2010	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/30/2010	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	06/10/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/13/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	06/04/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/07/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	06/26/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
MW-9	9/27/2007	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/26/2007	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/26/2008	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/17/2008	<0.50	22	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	9/15/2008	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/30/2008	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	3/30/2009	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/25/2009	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/17/2009	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	6/29/2010	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/30/2010	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds and Total Chromium
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	Total Chromium (µg/L)
MW-9 (Continued)	06/10/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/13/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	06/04/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/07/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	06/26/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
USTW	5/3/2000	--	--	--	--	--	--	--	--	--
	7/28/2000	--	--	--	--	--	--	--	--	--
	10/29/2000	--	--	--	--	--	--	--	--	--
	2/9/2001	--	--	--	--	--	--	--	--	--
	5/11/2001	--	--	--	--	--	--	--	--	--
	8/10/2001	--	--	--	--	--	--	--	--	--
	11/7/2001	--	--	--	--	--	--	--	--	--
	2/6/2002	--	--	--	--	--	--	--	--	--
	5/8/2002	--	--	--	--	--	--	--	--	--
	8/9/2002	--	--	--	--	--	--	--	--	--
	11/26/2002	--	--	--	--	--	--	--	--	--
	5/3/2003	--	--	--	--	--	--	--	--	--
	8/1/2003	--	--	--	--	--	--	--	--	--
	10/30/2003	--	--	--	--	--	--	--	--	--
	1/29/2004	--	--	--	--	--	--	--	--	--
	5/27/2004	--	--	--	--	--	--	--	--	--
	8/31/2004	--	--	--	--	--	--	--	--	--
	11/18/2004	--	--	--	--	--	--	--	--	--
	3/25/2005	--	--	--	--	--	--	--	--	--
	6/22/2005	--	--	--	--	--	--	--	--	--
	9/26/2005	--	--	--	--	--	--	--	--	--
	12/20/2005	--	--	--	--	--	--	--	--	--
	3/29/2006	--	--	--	--	--	--	--	--	--
	6/12/2006	--	--	--	--	--	--	--	--	--
	9/27/2006	--	--	--	--	--	--	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds and Total Chromium
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	Total Chromium (µg/L)
USTW	12/27/2006	--	--	--	--	--	--	--	--	--
(Continued)	3/16/2007	--	--	--	--	--	--	--	--	--
	6/27/2007	--	--	--	--	--	--	--	--	--
	9/27/2007	--	--	--	--	--	--	--	--	--
	12/26/2007	--	--	--	--	--	--	--	--	--
	3/26/2008	--	--	--	--	--	--	--	--	--
	6/17/2008	--	--	--	--	--	--	--	--	--
	9/15/2008	--	--	--	--	--	--	--	--	--
	12/30/2008	--	--	--	--	--	--	--	--	--
	3/30/2009	--	--	--	--	--	--	--	--	--
	6/25/2009	--	--	--	--	--	--	--	--	--
	12/17/2009	--	--	--	--	--	--	--	--	--
	6/29/2010	--	--	--	--	--	--	--	--	--
	12/30/2010	--	--	--	--	--	--	--	--	--
	06/10/2011	--	--	--	--	--	--	--	--	--
	12/13/2011	--	--	--	--	--	--	--	--	--
	06/04/2012	--	--	--	--	--	--	--	--	--
	12/7/2012	--	--	--	--	--	--	--	--	--
	06/26/2013	--	--	--	--	--	--	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds and Total Chromium
Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	Total Chromium (µg/L)
---------	------	----------------	---------------	-------------------	----------------	----------------	----------------	---------------	---------------	-----------------------------

NOTES:

Oxygenate compounds analyzed by United States Environmental Protection Agency Method 8260B

Total Chromium analyzed by United States Environmental Protection Agency Method 6010B

ID = Identification

-- = Not available/Not Analyzed

² = MTBE analyzed using United States Environmental Protection Agency Method Method 8021B

µg/L = Micrograms per liter

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

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

ND = Not detected

FIGURES

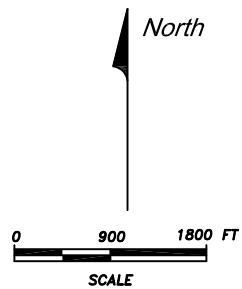
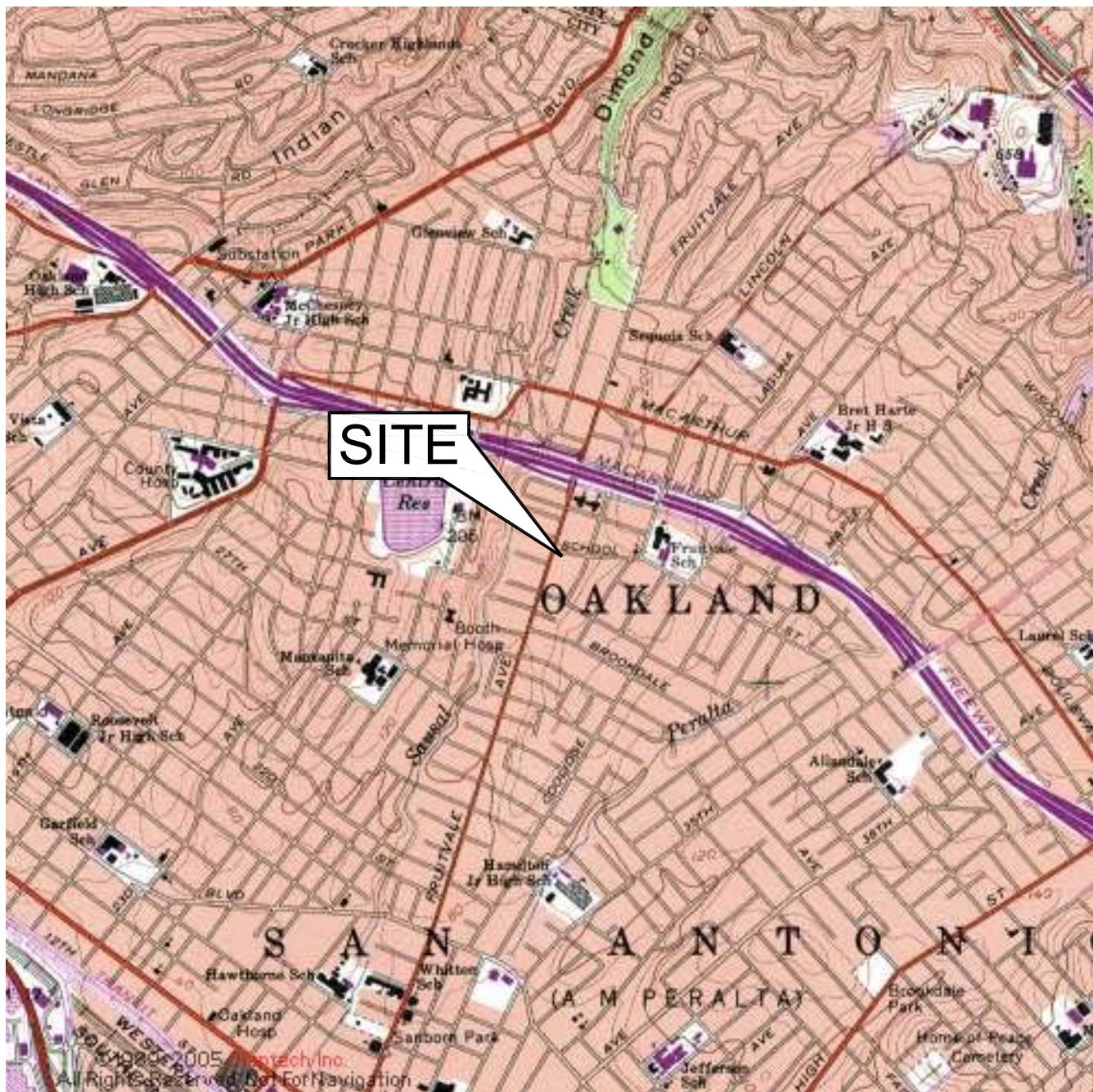


FIGURE 1
SITE LOCATION MAP
UNOCAL No. 4625 (351641)
3070 FRUITVALE AVENUE
OAKLAND, CALIFORNIA

PROJECT NO.
60267017

DRAWN BY
CD 07/25/2013

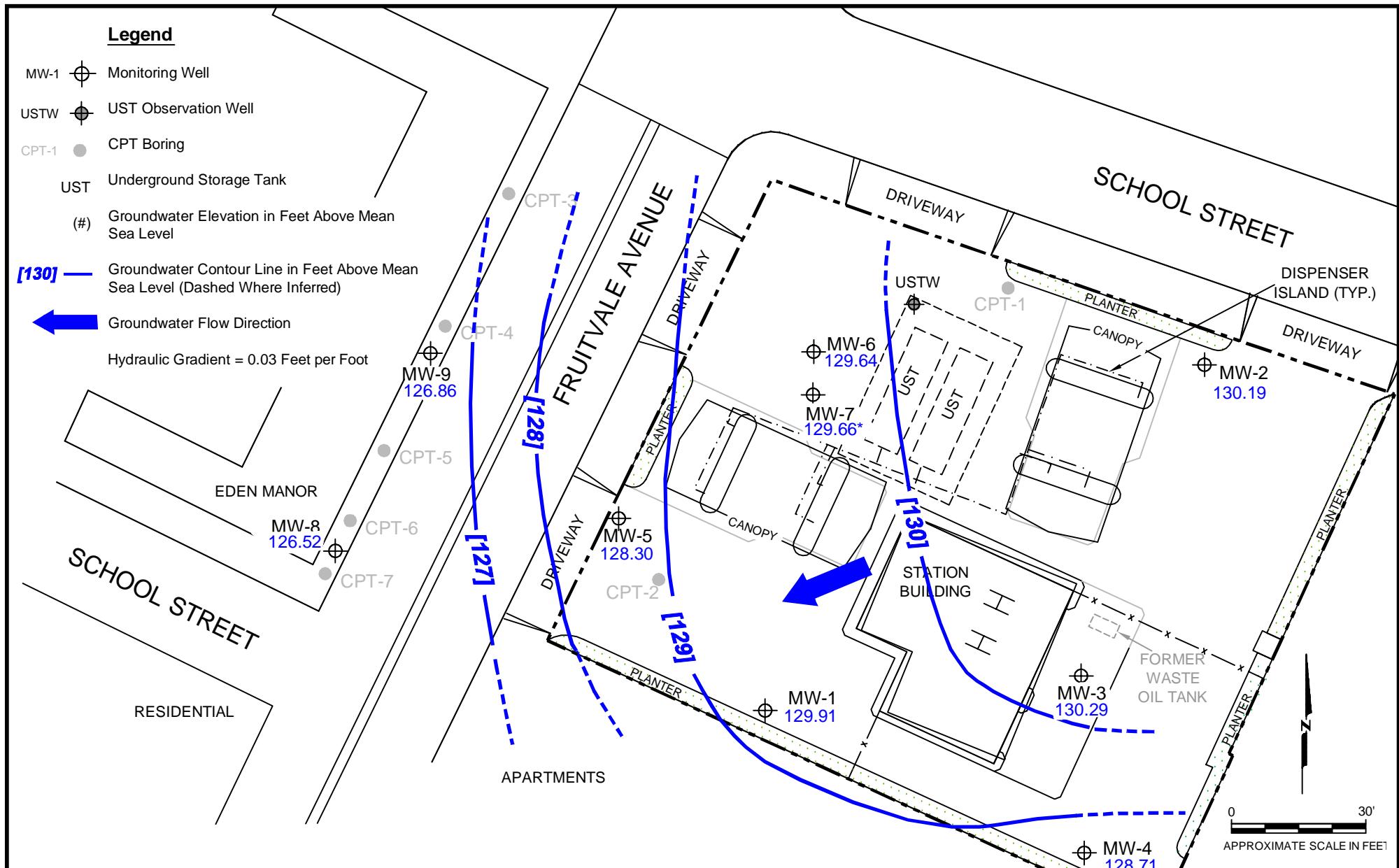
FILE NO.
351641

PREPARED BY
CD

REVISION NO.

REVIEWED BY
JH

AECOM

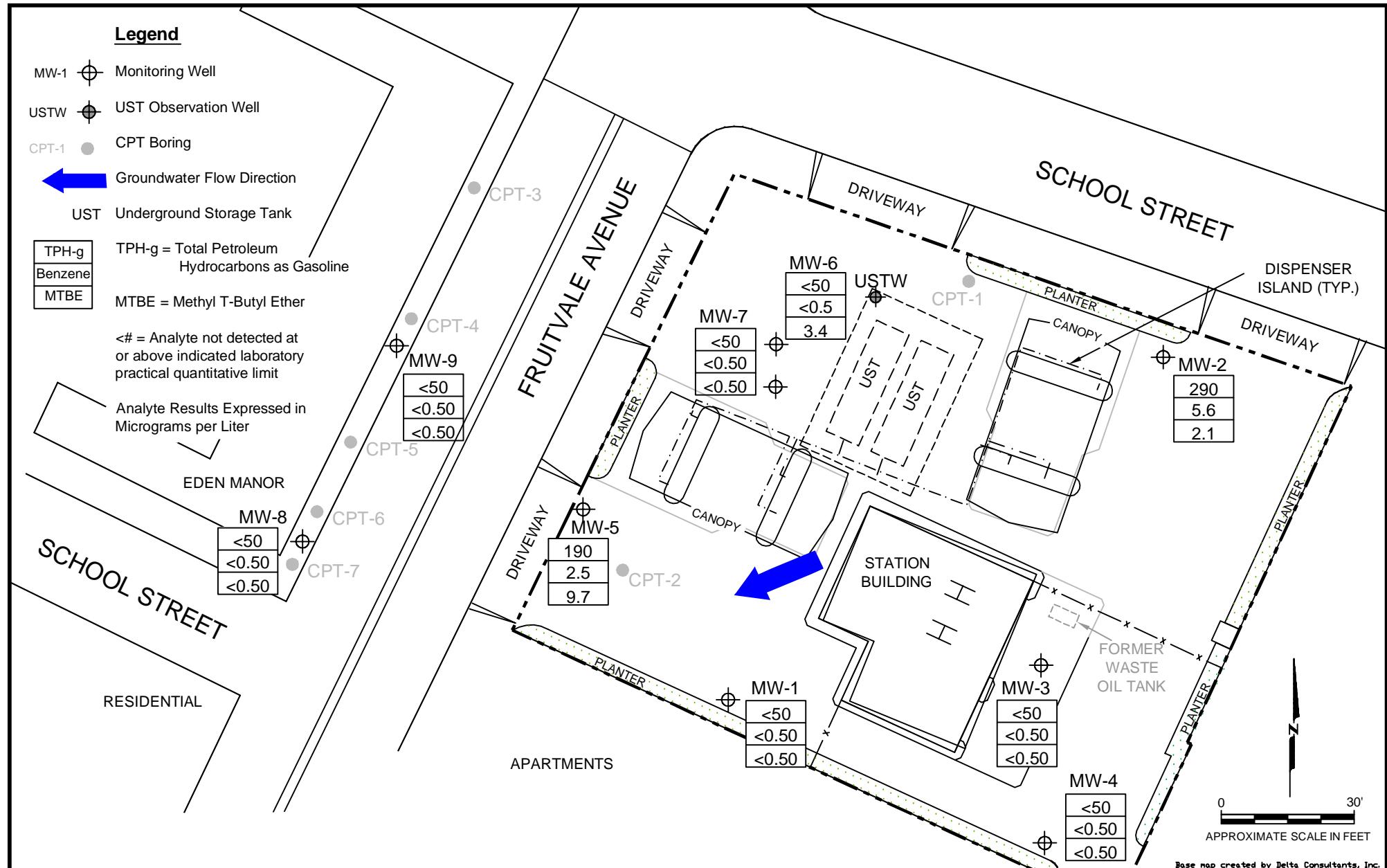


GROUNDWATER ELEVATION CONTOUR MAP First Semi-Annual 2013 Unocal No. 4625 (351641) 3070 Fruitvale Avenue, Oakland, California		
SCALE: 1" = 30'	DATE: 07/22/2012	PROJECT NUMBER: 60284077

AECOM
10461 OLD PLACERVILLE ROAD SUITE 170
SACRAMENTO, CALIFORNIA 95827
PHONE: (916) 361-6400
FAX: (916) 361-6401
WEB: [HTTP://WWW.AECOM.COM](http://WWW.AECOM.COM)

DESIGNED BY:	REVISIONS			FIGURE NUMBER:
DRAWN BY:	NO.:	DESCRIPTION:	DATE:	BY:
MB	1	PG Edits	7/29	JH
CHECKED BY:				
JH				
APPROVED BY:				
JH				

2



GROUNDWATER CONCENTRATION MAP		
First Semi-Annual 2013		
Unocal No. 4625 (351641)		
SCALE:	DATE:	PROJECT NUMBER:
1" = 30'	07/22/2013	60284077

AECOM
10461 OLD PLACERVILLE ROAD SUITE 170
SACRAMENTO, CALIFORNIA 95827
PHONE: (916) 361-6400
FAX: (916) 361-6401
WEB: [HTTP://WWW.AECOM.COM](http://WWW.AECOM.COM)

DESIGNED BY:	REVISIONS			FIGURE NUMBER:
DRAWN BY:	NO.:	DESCRIPTION:	DATE:	BY:
MB	1	PG Edits	7/29	JH
CHECKED BY:				
JH				
APPROVED BY:				
JH				

ATTACHMENT A

**JUNE 26, 2013 GROUNDWATER
DATA FIELD SHEETS**



GETTLER - RYAN INC.



TRANSMITTAL

July 5, 2013
G-R #385642

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

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: **Chevron Facility**
#351641/6425
3070 Fruitvale Avenue
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package First Semi-Annual Event of June 26, 2013

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/351641 4625

WELL CONDITION STATUS SHEET

Client/ Facility #:	Chevron #351641 / 4625					Job #:	385642				
Site Address:	3070 Fruitvale Avenue					Event Date:	6/26/13				
City:	Oakland, CA					Sampler:	JOE				
WELL ID	Vault Frame Condition	Gasket/ O-Ring (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retap	Apron Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) Inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y/N
MW-2	OK	M	OK	-	-	-	-	Y	Y	Boart Longyear 8" 3	N
USTW	OK	-	-	-	-	-	-	N	N	Morrison 12" 2	N
MW-7	OK	M	M-1	B-1	OK	-	-	Y	N	EMCO 12" 2	N
MW-1	OK	M	R-3	R=3	OK	-	-	N	N	Boart Longyear 8" 3	N
MW-9	OK	-	-	-	-	-	-	Y	Y	Emco 12" 2	N
MW-8	OK	-	-	-	-	-	-	N	N	Emco 12" 2	N
MW-3	OK	M	OK	-	-	-	-	Y	Y	Boart Longyear 8" 3	N
MW-4	OK	M	OK	-	-	-	-	Y	Y	Boart Longyear 8" 3	N
MW-6	OK	-	→	S=1	C	OK	→	Y	Y	Emco 8" 2	N
MW-5	OK	-	-	-	-	-	-	Y	Y	Emco 8" 2	N

Comments MW-7, Bolt broken in flange

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 #351641 / 4625**
 Site Address: **3070 Fruitvale Avenue**
 City: **Oakland, CA**

Job Number: **385642**
 Event Date: **6/26/13** (inclusive)
 Sampler: **JOE**

Well ID: **MW-1**
 Well Diameter: **2 1/2 in.**
 Total Depth: **25.10 ft.**
 Depth to Water: **7.66 ft.**

Date Monitored: **6/26/13**

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.
 $17.44 \times VF \ 0.17 = 2.96$ x3 case volume = Estimated Purge Volume: **8.89 gal.**

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: **11.14**

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump
 Suction Pump _____
 Grundfos _____
 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: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): **0814**
 Sample Time/Date: **1027/0827 / 6/26/13**
 Approx. Flow Rate: **1 gpm.**
 Did well de-water? **No** If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: **17.95**

Time (2400 hr.)	Volume (gal.)	pH	Conductivity <small>(µmhos/cm)</small>	Temperature <small>(°C / °F)</small>	D.O. (mg/L)	ORP (mV)
0817	3	7.20	0.58	20.5		
0820	6	7.16	0.59	19.8		
0823	9	7.13	0.59	19.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	3 x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/EDB/EDC(8260B)/ETHANOL(8260)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/8 OXYS(8260B)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/FULL SCAN(8260B)/ETHANOL(8260)
	x 1 liter ambers	YES	HCL	BC LABS	TOG
	x 500ml poly	YES	HNO3	BC LABS	TOTAL CHROMIUM
	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO (8015M)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's (8270)

COMMENTS: **Slow recovery, Did not recover in two hours.**

Add/Replaced Gasket: _____

Add/Replaced Bolt: **V-3**

Add/Replaced Lock: _____

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351641 / 4625
 Site Address: 3070 Fruitvale Avenue
 City: Oakland, CA

Job Number: 385642
 Event Date: 6/26/13 (inclusive)
 Sampler: JOE

Well ID MW-2
 Well Diameter 2 1/2 in.
 Total Depth 24.37 ft.
 Depth to Water 9.66 ft.

Date Monitored: 6/26/13

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.

14.71 xVF 0.17 = 2.50 x3 case volume = Estimated Purge Volume: 7.50 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.60

Purge Equipment:
 Disposable Bailer /
 Stainless Steel Bailer /
 Stack Pump /
 Suction Pump /
 Grundfos /
 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: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 0950

Weather Conditions: Clear

Sample Time/Date: 1007 / 6/26/13

Water Color: Clear Odor: Y / N

Approx. Flow Rate: 1 gpm.

Sediment Description: Light

Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 9.66

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos/cm}$ μs)	Temperature ($^{\circ}\text{C}$ / $^{\circ}\text{F}$)	D.O. (mg/L)	ORP (mV)
<u>0952</u>	<u>2.5</u>	<u>7.09</u>	<u>0.33</u>	<u>21.4</u>		
<u>0955</u>	<u>5</u>	<u>7.00</u>	<u>0.33</u>	<u>20.8</u>		
<u>0958</u>	<u>7.5</u>	<u>6.95</u>	<u>0.32</u>	<u>20.7</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3</u> x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/EDB/EDC(8260B)/ETHANOL(8260)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/8 OXYS(8260B)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/FULL SCAN(8260B)/ETHANOL(8260)
	x 1 liter ambers	YES	HCL	BC LABS	TOG
	x 500ml poly	YES	HNO3	BC LABS	TOTAL CHROMIUM
	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO (8015M)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's (8270)

COMMENTS: _____

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: /

Add/Replaced Plug: / 2"



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #351641 / 4625**
 Site Address: **3070 Fruitvale Avenue**
 City: **Oakland, CA**

Job Number: **385642**
 Event Date: **6/26/13** (inclusive)
 Sampler: **JOE**

Well ID **MW-3**

Date Monitored: **6/26/13**

Well Diameter **27.6** in.

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

Total Depth **25.18** ft.

Depth to Water **9.60** ft.

Check if water column is less than 0.50 ft.

16.59 xVF **0.17** = **2.81** x3 case volume = Estimated Purge Volume: **8.45** gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: **11.91**

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 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: _____ gal

Amt Removed from Well: _____ gal

Water Removed: _____

Start Time (purge): **0904**

Weather Conditions: **Clear**

Sample Time/Date: **0930 16/26/13**

Water Color: **Brown** Odor: **Y/N** **Slight**

Approx. Flow Rate: **1** gpm.

Sediment Description: **Heavy**

Did well de-water? **NO** If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: **8.65**

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mho/cm}$ μs)	Temperature ($^{\circ}\text{C}$ / $^{\circ}\text{F}$)	D.O. (mg/L)	ORP (mV)
0907	3	7.24	0.35	20.2		
0910	6	7.14	0.33	20.1		
0912	8.5	6.96	0.33	20.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/EDB/EDC(8260B)/ETHANOL(8260)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/8 OXYS(8260B)
3	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/FULL SCAN(8260B)/ETHANOL(8260)
1	x 1 liter ambers	YES	HCL	BC LABS	TOG
1	x 500ml poly	YES	HNO3	BC LABS	TOTAL CHROMIUM
2	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO (8015M)
1	x 1 liter ambers	YES	NP	BC LABS	SVOC's (8270)

COMMENTS: _____

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock:

Add/Replaced Plug: **Z/M**



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351641 / 4625
 Site Address: 3070 Fruitvale Avenue
 City: Oakland, CA

Job Number: 385642
 Event Date: 6/26/13 (inclusive)
 Sampler: JOE

Well ID MW-4
 Well Diameter 2 1/2 in.
 Total Depth 24.45 ft.
 Depth to Water 9.10 ft.
15.35 xVF 0.17 = 2.60

Date Monitored: 6/26/13

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.

Depth to Water w/ 80% Recharge ([Height of Water Column x 0.20) + DTW]: 12.17 x3 case volume = Estimated Purge Volume: 7.82 gal.

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump
 Suction Pump _____
 Grundfos _____
 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: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): 0842 Weather Conditions: Clear
 Sample Time/Date: 1055 16/26/13 Water Color: gray Odor: Y/N
 Approx. Flow Rate: 1 gpm. Sediment Description: Light
 Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 13.75

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (<u>micro/ohm</u> <u>µS</u>)	Temperature (<u>°C</u> / <u>°F</u>)	D.O. (mg/L)	ORP (mV)
<u>0845</u>	<u>3</u>	<u>7.29</u>	<u>0.48</u>	<u>19.6</u>		
<u>0848</u>	<u>8.6</u>	<u>7.27</u>	<u>0.53</u>	<u>18.6</u>		
<u>0850</u>	<u>8</u>	<u>7.32</u>	<u>0.56</u>	<u>18.5</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3</u> x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/EDB/EDC(8260B)/ETHANOL(8260)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/8 OXYS(8260B)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/FULL SCAN(8260B)/ETHANOL(8260)
	x 1 liter ambers	YES	HCL	BC LABS	TOG
	x 500ml poly	YES	HNO3	BC LABS	TOTAL CHROMIUM
	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO (8015M)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's (8270)

COMMENTS: Slow recovery, did NOT recover in 2 hours.

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock:

Add/Replaced Plug: 2"



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #351641 / 4625**
 Site Address: **3070 Fruitvale Avenue**
 City: **Oakland, CA**

Job Number: **385642**
 Event Date: **6/26/13** (inclusive)
 Sampler: **Joe**

Well ID: **MW-5**
 Well Diameter: **2 1/2 in.**
 Total Depth: **24.43 ft.**
 Depth to Water: **9.05 ft.**

Date Monitored: **6/26/13**

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.

15.38 xVF **0.17** = **2.61** x3 case volume = Estimated Purge Volume: **7.84** gal.

Depth to Water w/ 80% Recharge ([Height of Water Column x 0.20) + DTW]: **12.12**

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump
 Suction Pump _____
 Grundfos _____
 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: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): **1154** Weather Conditions: **Clear**
 Sample Time/Date: **1334 / 6/26/13** Water Color: **Clear** Odor: **Y/N**
 Approx. Flow Rate: **1** gpm. Sediment Description: **None**
 Did well de-water? **No** If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: **10.48**

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos/cm}$ μs)	Temperature ($^{\circ}\text{C}$ / $^{\circ}\text{F}$)	D.O. (mg/L)	ORP (mV)
1157	3	7.00	0.48	23.0		
1200	6	6.94	0.47	22.8		
1202	8	6.91	0.47	22.3		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/EDB/EDC(8260B)/ETHANOL(8260)
3	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/8 OXYS(8260B)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/FULL SCAN(8260B)/ETHANOL(8260)
	x 1 liter ambers	YES	HCL	BC LABS	TOG
	x 500ml poly	YES	HNO3	BC LABS	TOTAL CHROMIUM
	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO (8015M)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's (8270)

COMMENTS: **Slow recovery/**

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: Add/Replaced Plug: **/ - 2 "**



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #351641 / 4625**

Site Address: **3070 Fruitvale Avenue**

City: **Oakland, CA**

Job Number: **385642**

Event Date: **6/26/13** (inclusive)

Sampler: **JOE**

Well ID **MW-6**
 Well Diameter **2 1/6** in.
 Total Depth **23.45** ft.
 Depth to Water **9.05** ft.
14.40 xVF **6.17** = **2.44** x3 case volume = Estimated Purge Volume: **7.34** gal.

Date Monitored: **6/26/13**

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.

Depth to Water w/ 80% Recharge ([Height of Water Column x 0.20) + DTW]: **11.93**

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump
 Suction Pump _____
 Grundfos _____
 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: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): **1114** Weather Conditions: **Clear**
 Sample Time/Date: **1135/6/26/13** Water Color: **gray** Odor: Y N _____
 Approx. Flow Rate: **1** gpm. Sediment Description: **Light**
 Did well de-water? **No** If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: **9.06**

Time (2400 hr.)	Volume (gal.)	pH	Conductivity μmhos/cm HS	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>1116</u>	<u>2</u>	<u>7.26</u>	<u>0.37</u>	<u>22.2</u>		
<u>1118</u>	<u>4</u>	<u>7.16</u>	<u>0.36</u>	<u>21.6</u>		
<u>1121</u>	<u>7.5</u>	<u>7.13</u>	<u>0.36</u>	<u>21.5</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/EDB/EDC(8260B)/ETHANOL(8260)
<u>3</u>	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/8 OXYS(8260B)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/FULL SCAN(8260B)/ETHANOL(8260)
	x 1 liter ambers	YES	HCL	BC LABS	TOG
	x 500ml poly	YES	HNO3	BC LABS	TOTAL CHROMIUM
	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO (8015M)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's (8270)

COMMENTS: _____

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock:

Add/Replaced Plug: **1/2"**



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #351641 / 4625**
 Site Address: **3070 Fruitvale Avenue**
 City: **Oakland, CA**

Job Number: **385642**
 Event Date: **6/26/13** (inclusive)
 Sampler: **JOE**

Well ID **MW-7**

Date Monitored: **6/26/13**

Well Diameter **2 1/2** in.

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

Total Depth **54.75** ft.

Depth to Water **9.08** ft.

Check if water column is less than 0.50 ft.

45.67 xVF **0.17** = **7.76** x3 case volume = Estimated Purge Volume: **23.29** gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: **18.21**

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump **✓**
 Suction Pump _____
 Grundfos _____
 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: _____ gal

Amt Removed from Well: _____ gal

Water Removed: _____

Start Time (purge): **1038**

Weather Conditions: **Clear**

Sample Time/Date: **1321 16/25/13**

Water Color: **Clear** Odor: Y / N _____

Approx. Flow Rate: **2** gpm.

Sediment Description: **None**

Did well de-water? **yes**

If yes, Time: **1045** Volume: **19** gal. DTW @ Sampling: **15.55**

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos/cm}$)	Temperature ($^{\circ}\text{C}$ / $^{\circ}\text{F}$)	D.O. (mg/L)	ORP (mV)
1038	8	7.27	0.73	21.2		
1042	16	7.46	0.72	21.0		
+04						

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/EDB/EDC(8260B)/ETHANOL(8260)
					TPH-GRO GC/MS/BTEX+MTBE(8260)/8 OXYS(8260B)
3	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/FULL SCAN(8260B)/ETHANOL(8260)
	x voa vial	YES	HCL	BC LABS	TOG
	x 1 liter ambers	YES	HNO3	BC LABS	TOTAL CHROMIUM
	x 500ml poly	YES	NP	BC LABS	TPH-DRO (8015M)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's (8270)
	x 1 liter ambers	YES	NP		

COMMENTS: **Bolt Broken in Flange, slow recover!**

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock: **✓**

Add/Replaced Plug: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #351641 / 4625**
 Site Address: **3070 Fruitvale Avenue**
 City: **Oakland, CA**

Job Number: **385642**
 Event Date: **6/25/13** (inclusive)
 Sampler: **JOE**

Well ID **MW-8**
 Well Diameter **2 1/2** in.
 Total Depth **19.58** ft.
 Depth to Water **9.70** ft.
 $9.88 \times VF \quad 0.17 = 1.67$ Check if water column is less than 0.50 ft.

Date Monitored: **6/25/13**

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: **11.67**

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 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: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): **12:26**
 Sample Time/Date: **1243 / 6 / 26 / 13**
 Approx. Flow Rate: **—** gpm.
 Did well de-water? **NO** If yes, Time: **—** Volume: **—** gal. DTW @ Sampling: **9.80**

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm) MS	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
12:27	1	6.97	0.53	22.7		
12:31	3	6.80	0.53	21.8		
12:35	5	6.79	0.51	21.3		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/EDB/EDC(8260B)/ETHANOL(8260)
3	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/8 OXYS(8260B)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/FULL SCAN(8260B)/ETHANOL(8260)
	x 1 liter ambers	YES	HCL	BC LABS	TOG
	x 500ml poly	YES	HNO3	BC LABS	TOTAL CHROMIUM
	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO (8015M)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's (8270)

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 #351641 / 4625**
 Site Address: **3070 Fruitvale Avenue**
 City: **Oakland, CA**

Job Number: **385642**
 Event Date: **6/26/13** (inclusive)
 Sampler: **JOE**

Well ID: **MW-9**
 Well Diameter: **6 in.**
 Total Depth: **19.60 ft.**
 Depth to Water: **10.25 ft.**
9.35 xVF **0.17** = **1.58**

Date Monitored: **6/26/13**

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
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Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge ([Height of Water Column x 0.20) + DTW]: **12.12**

Purge Equipment:
 Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 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: _____ gal
 Amt Removed from Well: _____ gal
 Water Removed: _____

Start Time (purge): **1252**
 Sample Time/Date: **1308 / 6/26/13**
 Approx. Flow Rate: **— gpm.**
 Did well de-water? **No** If yes, Time: **—** Volume: **— gal.** DTW @ Sampling: **10.35**

Time (2400 hr.)	Volume (gal.)	pH	Conductivity µmhos/cm µS	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1253	1	7.15	0.56	23.5		
1256	3	7.06	0.50	23.2		
1254	5	7.04	0.48	23.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-9	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/EDB/EDC(8260B)/ETHANOL(8260)
3	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/8 OXYS(8260B)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/FULL SCAN(8260B)/ETHANOL(8260)
	x 1 liter ambers	YES	HCL	BC LABS	TOG
	x 500ml poly	YES	HNO3	BC LABS	TOTAL CHROMIUM
	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO (8015M)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's (8270)

COMMENTS: _____

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

Add/Replaced Lock:

Add/Replaced Plug: **✓** **J-22**



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #351641 / 4625** Job Number: **385642**
 Site Address: **3070 Fruitvale Avenue** Event Date: **6/26/13** (inclusive)
 City: **Oakland, CA** Sampler: **JOE**

Well ID **U3TW** Date Monitored: **6/26/13**

Well Diameter **2 1/2** in.

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

Total Depth **15.25** ft.

Depth to Water **9.00** ft.

Check if water column is less than 0.50 ft.

6.25 xVF **—** = **—** x3 case volume = Estimated Purge Volume: **—** gal.

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

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 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: **—** gal
 Amt Removed from Well: **—** gal
 Water Removed: **—**

Start Time (purge): _____

Weather Conditions:

Sample Time/Date: **/**

Water Color: **—** Odor: Y / N

Approx. Flow Rate: **—** gpm.

Sediment Description: _____

Did well de-water? _____

If yes, Time: **—** Volume: **—** gal. DTW @ Sampling: **—**

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ($\mu\text{mhos/cm} - \mu\text{S}$)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/EDB/EDC(8260B)/ETHANOL(8260)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/ B-OXYS (8260B)
	x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/FULL SCAN(8260B)/ETHANOL(8260)
	x 1 liter ambers	YES	HCL	BC LABS	TOG
	x 500ml poly	YES	HNO3	BC LABS	TOTAL CHROMIUM
	x 1 liter ambers	YES	NP	BC LABS	TPH-DRO (8015M)
	x 1 liter ambers	YES	NP	BC LABS	SVOC's (8270)

COMMENTS: **M/O**

Add/Replaced Gasket: _____

Add/Replaced Bolt: _____

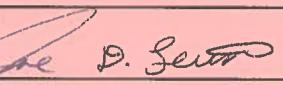
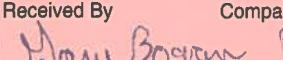
Add/Replaced Lock: _____

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:	4625			Union Oil Consultant:	AECOM Environment			ANALYSES REQUIRED					
Site Global ID:	T0600102156			Consultant Contact:	James Harms			Turnaround Time (TAT): Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>					
Site Address:	3070 Fruitvale Ave. Oakland, CA			Consultant Phone No.:	(916) 361-6412								
Union Oil PM:	Roya Kambin			Sampling Company:	Gettier-Ryan								
Union Oil PM Phone No.:	(925) 790-6270			Sampled By (PRINT):	JOE D. LEWIS								
Charge Code:	NWRTB-0 351641-0-LAB			Sampler Signature:									
This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.				BC Laboratories, Inc. Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911									
SAMPLE ID										Notes / Comments			
Field Point Name	Matrix	Depth	Date (ymmmdd)	Sample Time	# of Containers		TPH - Diesel by EPA 8015, SVOC's (8270)	TPH - G by GC/MS	BTEX/MTBE/OXYS by EPA 8260B	EPA 8260B	TPH-G GC/MS Full Scan (8260B), Total Chromium	EDB/EDC (8260B)	8 oxys (8260B)
MW-1	W-S-A		13/6/26	1027	3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
MW-2	W-S-A			1007		↓	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
MW-3	W-S-A			0930	9		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
MW-4	W-S-A			1055	3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
MW-5	W-S-A			1334			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
MW-6	W-S-A			1135			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
MW-7	W-S-A			1321			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
MW-8	W-S-A			1243			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
MW-9	W-S-A			1308			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
QA	W-S-A	↓		NA	↓		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
	W-S-A												
	W-S-A												
Relinquished By	Company	Date / Time:		6/26/13			Relinquished By	Company	Date / Time :		Relinquished By	Company	Date / Time:
	Gettier-Ryan												
Received By	Company	Date / Time:					Received By	Company	Date / Time :		Received By	Company	Date / Time:
	BC LAB												

ATTACHMENT B

**BC LABS ANALYTICAL REPORT
#1313325**



Date of Report: 07/12/2013

Jim Harms

AECOM

10461 Old Placerville Rd, Suite 170
Sacramento, CA 95827

Project: 4625
BC Work Order: 1313325
Invoice ID: B150308

Enclosed are the results of analyses for samples received by the laboratory on 6/26/2013. 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

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4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com

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Chain of Custody and Cooler Receipt Form for 1313325 Page 1 of 2

CHAIN OF CUSTODY FORM							#13-13325	COC		
Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583										
ANALYSES REQUIRED										
Union Oil Consultant: AECOM Environment		Consultant Contact: Jawees Harris		Consultant Phone No. (916) 361-6412		Sampling Company: G-E77ER-Ryan		Turnaround Time (TAT): Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 72 Hours		
Site Global ID: T0600102156		Site Address: 3070 Fruitvale Ave. Oakland, CA		Site Address: Roya Kamrin		Sampled By (PRINT): JOE D. LEWIS		Special Instructions RUN 8 OXYS ON ALL 8260 MTBE HS		
Union Oil PM: (925) 790-6270		Union Oil PM Phone No.: (925) 790-6270		Sampler Signature: Joe D. Lewis						
Charge Code: NWRTB-0351641-0-LAB										
This is a LEGAL document. All fields must be filled out CORRECTLY and COMPLETELY .										
SAMPLE ID							Notes / Comments			
Field Point Name	Matrix	Depth	Date (ymmd)	Sample Time	# of Containers					
-1 MW-1	W-SA		13/6/26	1027	3					
-2 MW-2	W-SA			1007	1					
-3 MW-3	W-SA			0930	9					
-4 MW-4	W-SA			1055	3					
-5 MW-5	W-SA			1334						
-6 MW-6	W-SA			1135						
-7 MW-7	W-SA			1321						
-8 MW-8	W-SA			1243						
-9 MW-9	W-SA			1308						
-10 QA	W-SA			NA						
	W-SA									
Relinquished By	Company	Date / Time:	6/26/13	Relinquished By	Company	Date / Time:		Company	Date / Time:	
Joe D. Lewis	Gottier-Ryan	1445	Henry Boyer-BCLAB	6-26-13 1745	BCLAB	6-26-13 20:50				
Received By	Company	Date / Time:		Received By	Company	Date / Time:		Received By	Company	
Henry Boyer-BCLAB	6-26-13 1445	1520	BCLAB	6-26-13 17:45	Karen	6-26-13 2050				

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Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1313325 Page 2 of 2

IC LABORATORIES INC.		COOLER RECEIPT FORM		Rev. No. 13	08/17/12	Page / 01					
Submission #: 1313325											
SHIPPING INFORMATION			SHIPPING CONTAINER								
Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____			Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> 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: _____ Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>									
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"/>											
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: 0.95 Container: <u>Polar</u> Thermometer ID: 207	Date/Time 6/26/13 Analyst Init KIQ 2050								
		Temperature: (A) 2.7 °C / (C) 2.8 °C									
SAMPLE CONTAINERS	SAMPLE NUMBERS										
	1	2	3	4	5	6	7	8	9	10	
QT GENERAL MINERAL/ GENERAL PHYSICAL											
PT PE UNPRESERVED											
QT INORGANIC CHEMICAL METALS											
PT INORGANIC CHEMICAL METALS											
PT CYANIDE											
PT NITROGEN FORMS											
PT TOTAL SULFIDE											
202. NITRATE / NITRITE											
PT TOTAL ORGANIC CARBON											
PT TOX											
PT CHEMICAL OXYGEN DEMAND											
PTA PHENOLICS											
40ml VOA VIAL TRAVEL BLANK										A (3)	
40ml VOA VIAL	A 13	A 13	A 13	A 13	A 13	A 13	A 13	A 13	A 13		
QT EPA 413.1, 413.2, 418.3											
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											
100ml EPA 547											
100ml EPA 531.1											
QT EPA 548											
QT EPA 549											
QT EPA 632											
QT EPA 8015M											
QT AMBER										CDEFG	
8 OZ JAR											
32 OZ JAR											
SOIL SLEEVE											
PCB VIAL											
PLASTIC BAG											
FERROUS IRON											
ENVOIR											
SMART KIT											
Comments: _____	Sample Numbering Completed By: RVR		Date/Time: 6/27/13 @ 0755								
	n - Drafted f - Converted										
CHK BY DISTRIBUTION											
<input checked="" type="checkbox"/> SUB OUT <input checked="" type="checkbox"/> QC <input checked="" type="checkbox"/> ANALYST <input checked="" type="checkbox"/> APPROVAL <input checked="" type="checkbox"/> SIGNATURE											

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AECOM
10461 Old Placerville Rd, Suite 170
Sacramento, CA 95827

Reported: 07/12/2013 15:14
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1313325-01	COC Number: --- Project Number: 4625 Sampling Location: --- Sampling Point: MW-1-W-130626 Sampled By: BTST	Receive Date: 06/26/2013 20:50 Sampling Date: 06/26/2013 10:27 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1313325-02	COC Number: --- Project Number: 4625 Sampling Location: --- Sampling Point: MW-2-W-130626 Sampled By: BTST	Receive Date: 06/26/2013 20:50 Sampling Date: 06/26/2013 10:07 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1313325-03	COC Number: --- Project Number: 4625 Sampling Location: --- Sampling Point: MW-3-W-130626 Sampled By: BTST	Receive Date: 06/26/2013 20:50 Sampling Date: 06/26/2013 09:30 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:		



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Sacramento, CA 95827

Reported: 07/12/2013 15:14
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information	
1313325-04	COC Number: --- Project Number: 4625 Sampling Location: --- Sampling Point: MW-4-W-130626 Sampled By: BTST	Receive Date: 06/26/2013 20:50 Sampling Date: 06/26/2013 10:55 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
1313325-05	COC Number: --- Project Number: 4625 Sampling Location: --- Sampling Point: MW-5-W-130626 Sampled By: BTST	Receive Date: 06/26/2013 20:50 Sampling Date: 06/26/2013 13:34 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
1313325-06	COC Number: --- Project Number: 4625 Sampling Location: --- Sampling Point: MW-6-W-130626 Sampled By: BTST	Receive Date: 06/26/2013 20:50 Sampling Date: 06/26/2013 11:35 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-6 Matrix: W Sample QC Type (SACode): CS Cooler ID:



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Reported: 07/12/2013 15:14
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1313325-07	COC Number: --- Project Number: 4625 Sampling Location: --- Sampling Point: MW-7-W-130626 Sampled By: BTST	Receive Date: 06/26/2013 20:50 Sampling Date: 06/26/2013 13:21 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-7 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1313325-08	COC Number: --- Project Number: 4625 Sampling Location: --- Sampling Point: MW-8-W-130626 Sampled By: BTST	Receive Date: 06/26/2013 20:50 Sampling Date: 06/26/2013 12:43 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-8 Matrix: W Sample QC Type (SACode): CS Cooler ID:		
1313325-09	COC Number: --- Project Number: 4625 Sampling Location: --- Sampling Point: MW-9-W-130626 Sampled By: BTST	Receive Date: 06/26/2013 20:50 Sampling Date: 06/26/2013 13:08 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): MW-9 Matrix: W Sample QC Type (SACode): CS Cooler ID:		



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Reported: 07/12/2013 15:14
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information	
1313325-10	COC Number: --- Project Number: 4625 Sampling Location: --- Sampling Point: QA-W-130626 Sampled By: BTST	Receive Date: 06/26/2013 20:50 Sampling Date: 06/26/2013 00:00 Sample Depth: --- Lab Matrix: Water Sample Type: Water Delivery Work Order: Global ID: T0600102156 Location ID (FieldPoint): QA Matrix: W Sample QC Type (SACode): CS Cooler ID:



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Sacramento, CA 95827

Reported: 07/12/2013 15:14
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1313325-01	Client Sample Name:	4625, MW-1-W-130626, 6/26/2013 10:27:00AM				
Constituent	Result	Units	PQL	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
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.9	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/27/13	06/29/13 05:40	JCC	MS-V14	1	BWF1998



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10461 Old Placerville Rd, Suite 170
Sacramento, CA 95827

Reported: 07/12/2013 15:14
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1313325-02	Client Sample Name:	4625, MW-2-W-130626, 6/26/2013 10:07:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	5.6	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	2.1	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
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	290	ug/L	50	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	109	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/27/13	06/29/13 06:03	JCC	MS-V14	1	BWF1998



AECOM
10461 Old Placerville Rd, Suite 170
Sacramento, CA 95827

Reported: 07/12/2013 15:14
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1313325-03	Client Sample Name:	4625, MW-3-W-130626, 6/26/2013 9:30:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260B	ND		1
Bromobenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Bromochloromethane	ND	ug/L	0.50	EPA-8260B	ND		1
Bromodichloromethane	ND	ug/L	0.50	EPA-8260B	ND		1
Bromoform	ND	ug/L	0.50	EPA-8260B	ND		1
Bromomethane	ND	ug/L	1.0	EPA-8260B	ND		1
n-Butylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
sec-Butylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
tert-Butylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Carbon tetrachloride	ND	ug/L	0.50	EPA-8260B	ND		1
Chlorobenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Chloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Chloroform	ND	ug/L	0.50	EPA-8260B	ND		1
Chloromethane	ND	ug/L	0.50	EPA-8260B	ND		1
2-Chlorotoluene	ND	ug/L	0.50	EPA-8260B	ND		1
4-Chlorotoluene	ND	ug/L	0.50	EPA-8260B	ND		1
Dibromochloromethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260B	ND		1
Dibromomethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	EPA-8260B	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	EPA-8260B	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	EPA-8260B	ND		1
Total 1,2-Dichloroethene	ND	ug/L	1.0	EPA-8260B	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	EPA-8260B	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	EPA-8260B	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	EPA-8260B	ND		1

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Reported: 07/12/2013 15:14
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1313325-03	Client Sample Name:	4625, MW-3-W-130626, 6/26/2013 9:30:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
1,1-Dichloropropene	ND	ug/L	0.50	EPA-8260B	ND		1
cis-1,3-Dichloropropene	ND	ug/L	0.50	EPA-8260B	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	EPA-8260B	ND		1
Total 1,3-Dichloropropene	ND	ug/L	1.0	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	EPA-8260B	ND		1
Isopropylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	EPA-8260B	ND		1
Methylene chloride	ND	ug/L	1.0	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Naphthalene	ND	ug/L	0.50	EPA-8260B	ND		1
n-Propylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Styrene	ND	ug/L	0.50	EPA-8260B	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Tetrachloroethene	ND	ug/L	0.50	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	EPA-8260B	ND		1
Trichloroethene	ND	ug/L	0.50	EPA-8260B	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	EPA-8260B	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	EPA-8260B	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	EPA-8260B	ND		1
Vinyl chloride	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		1

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Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1313325-03	Client Sample Name:	4625, MW-3-W-130626, 6/26/2013 9:30:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
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)	102	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.4	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/27/13	06/29/13 06:25	JCC	MS-V14	1	BWF1998



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Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID:	1313325-03	Client Sample Name:	4625, MW-3-W-130626, 6/26/2013 9:30:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Acenaphthene	ND	ug/L	2.0	EPA-8270C	ND		1
Acenaphthylene	ND	ug/L	2.0	EPA-8270C	ND		1
Anthracene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[a]anthracene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[b]fluoranthene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[k]fluoranthene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[a]pyrene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzo[g,h,i]perylene	ND	ug/L	2.0	EPA-8270C	ND		1
Benzoic acid	ND	ug/L	10	EPA-8270C	ND		1
Benzyl alcohol	ND	ug/L	2.0	EPA-8270C	ND		1
Benzyl butyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
bis(2-Chloroethoxy)methane	ND	ug/L	2.0	EPA-8270C	ND		1
bis(2-Chloroethyl) ether	ND	ug/L	2.0	EPA-8270C	ND		1
bis(2-Chloroisopropyl)ether	ND	ug/L	2.0	EPA-8270C	ND		1
bis(2-Ethylhexyl)phthalate	ND	ug/L	4.0	EPA-8270C	ND		1
4-Bromophenyl phenyl ether	ND	ug/L	2.0	EPA-8270C	ND		1
4-Chloroaniline	ND	ug/L	2.0	EPA-8270C	ND		1
2-Chloronaphthalene	ND	ug/L	2.0	EPA-8270C	ND		1
4-Chlorophenyl phenyl ether	ND	ug/L	2.0	EPA-8270C	ND		1
Chrysene	ND	ug/L	2.0	EPA-8270C	ND		1
Dibenzo[a,h]anthracene	ND	ug/L	3.0	EPA-8270C	ND		1
Dibenzofuran	ND	ug/L	2.0	EPA-8270C	ND		1
1,2-Dichlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
1,3-Dichlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
1,4-Dichlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
3,3-Dichlorobenzidine	ND	ug/L	10	EPA-8270C	ND		1
Diethyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
Dimethyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
Di-n-butyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
2,4-Dinitrotoluene	ND	ug/L	2.0	EPA-8270C	ND		1
2,6-Dinitrotoluene	ND	ug/L	2.0	EPA-8270C	ND		1
Di-n-octyl phthalate	ND	ug/L	2.0	EPA-8270C	ND		1
Fluoranthene	ND	ug/L	2.0	EPA-8270C	ND		1

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Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID:	1313325-03	Client Sample Name:	4625, MW-3-W-130626, 6/26/2013 9:30:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Fluorene	ND	ug/L	2.0	EPA-8270C	ND		1
Hexachlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
Hexachlorobutadiene	ND	ug/L	2.0	EPA-8270C	ND		1
Hexachlorocyclopentadiene	ND	ug/L	2.0	EPA-8270C	ND		1
Hexachloroethane	ND	ug/L	2.0	EPA-8270C	ND		1
Indeno[1,2,3-cd]pyrene	ND	ug/L	2.0	EPA-8270C	ND		1
Isophorone	ND	ug/L	2.0	EPA-8270C	ND		1
2-Methylnaphthalene	ND	ug/L	2.0	EPA-8270C	ND		1
Naphthalene	ND	ug/L	2.0	EPA-8270C	ND		1
2-Nitroaniline	ND	ug/L	2.0	EPA-8270C	ND		1
3-Nitroaniline	ND	ug/L	2.0	EPA-8270C	ND		1
4-Nitroaniline	ND	ug/L	5.0	EPA-8270C	ND		1
Nitrobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
N-Nitrosodi-N-propylamine	ND	ug/L	2.0	EPA-8270C	ND		1
N-Nitrosodiphenylamine	ND	ug/L	2.0	EPA-8270C	ND		1
Phenanthrene	ND	ug/L	2.0	EPA-8270C	ND		1
Pyrene	ND	ug/L	2.0	EPA-8270C	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	2.0	EPA-8270C	ND		1
4-Chloro-3-methylphenol	ND	ug/L	5.0	EPA-8270C	ND		1
2-Chlorophenol	ND	ug/L	2.0	EPA-8270C	ND		1
2,4-Dichlorophenol	ND	ug/L	2.0	EPA-8270C	ND		1
2,4-Dimethylphenol	ND	ug/L	2.0	EPA-8270C	ND		1
4,6-Dinitro-2-methylphenol	ND	ug/L	10	EPA-8270C	ND		1
2,4-Dinitrophenol	ND	ug/L	10	EPA-8270C	ND		1
2-Methylphenol	ND	ug/L	2.0	EPA-8270C	ND		1
3- & 4-Methylphenol	ND	ug/L	2.0	EPA-8270C	ND		1
2-Nitrophenol	ND	ug/L	2.0	EPA-8270C	ND		1
4-Nitrophenol	ND	ug/L	2.0	EPA-8270C	ND		1
Pentachlorophenol	ND	ug/L	10	EPA-8270C	ND		1
Phenol	ND	ug/L	2.0	EPA-8270C	ND		1
2,4,5-Trichlorophenol	ND	ug/L	5.0	EPA-8270C	ND		1
2,4,6-Trichlorophenol	ND	ug/L	5.0	EPA-8270C	ND		1
2-Fluorophenol (Surrogate)	32.8	%	30 - 120 (LCL - UCL)	EPA-8270C			1

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Project: 4625
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Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

BCL Sample ID:	1313325-03	Client Sample Name:	4625, MW-3-W-130626, 6/26/2013 9:30:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Phenol-d5 (Surrogate)	29.4	%	12 - 110 (LCL - UCL)	EPA-8270C			1
Nitrobenzene-d5 (Surrogate)	89.8	%	60 - 130 (LCL - UCL)	EPA-8270C			1
2-Fluorobiphenyl (Surrogate)	74.6	%	55 - 125 (LCL - UCL)	EPA-8270C			1
2,4,6-Tribromophenol (Surrogate)	73.0	%	40 - 150 (LCL - UCL)	EPA-8270C			1
p-Terphenyl-d14 (Surrogate)	79.7	%	40 - 150 (LCL - UCL)	EPA-8270C			1

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	Batch ID
			Date/Time						
1	EPA-8270C	07/03/13	07/10/13	00:29	SKC	MS-B1	1		BWG0766



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Total Petroleum Hydrocarbons

BCL Sample ID:	1313325-03	Client Sample Name: 4625, MW-3-W-130626, 6/26/2013 9:30:00AM					
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	40	EPA-8015B/TPH d	ND		1
Tetracosane (Surrogate)	115	%	30 - 150 (LCL - UCL)	EPA-8015B/TPH d			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B/TPHd	07/01/13	07/05/13 19:32	JAR	GC-5	1	BWG0439



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EPA Method 1664

BCL Sample ID:	1313325-03	Client Sample Name:	4625, MW-3-W-130626, 6/26/2013 9:30:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Oil and Grease	ND	mg/L	5.0	EPA-1664A HEM	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-1664A HEM	07/02/13	07/02/13 09:00	JAK	GC-2	1	BWG0250



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Metals Analysis

BCL Sample ID:	1313325-03	Client Sample Name:	4625, MW-3-W-130626, 6/26/2013 9:30:00AM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Chromium	85	ug/L	10	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	07/01/13	07/02/13 10:24	ARD	PE-OP1	1	BWG0042



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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1313325-04	Client Sample Name:	4625, MW-4-W-130626, 6/26/2013 10:55:00AM				
Constituent	Result	Units	PQL	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
Ethanol	ND	ug/L	250	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	98.3	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	96.0	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/27/13	06/29/13 06:47	JCC	MS-V14	1	BWF1998



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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1313325-05	Client Sample Name:	4625, MW-5-W-130626, 6/26/2013 1:34:00PM				
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	2.5	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	3.2	ug/L	0.50	EPA-8260B	ND		1
Methyl t-butyl ether	9.7	ug/L	0.50	EPA-8260B	ND		1
Toluene	0.73	ug/L	0.50	EPA-8260B	ND		1
Total Xylenes	8.6	ug/L	1.0	EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
t-Butyl alcohol	22	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		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	190	ug/L	50	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	108	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/27/13	06/29/13 07:10	JCC	MS-V14	1	BWF1998



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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1313325-06	Client Sample Name:	4625, MW-6-W-130626, 6/26/2013 11:35:00AM				
Constituent	Result	Units	PQL	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	3.4	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	11	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		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)	103	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	99.5	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	98.0	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/27/13	06/29/13 07:32	JCC	MS-V14	1	BWF1998



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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1313325-07	Client Sample Name:	4625, MW-7-W-130626, 6/26/2013 1:21:00PM				
Constituent	Result	Units	PQL	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		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)	105	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.5	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/27/13	06/29/13 07:55	JCC	MS-V14	1	BWF1998



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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1313325-08	Client Sample Name:	4625, MW-8-W-130626, 6/26/2013 12:43:00PM				
Constituent	Result	Units	PQL	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		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)	103	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	96.3	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/27/13	06/29/13 08:17	JCC	MS-V14	1	BWF1998



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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1313325-09	Client Sample Name:	4625, MW-9-W-130626, 6/26/2013 1:08:00PM				
Constituent	Result	Units	PQL	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		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)	101	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	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	06/27/13	06/29/13 08:40	JCC	MS-V14	1	BWF1998



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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1313325-10	Client Sample Name:	4625, QA-W-130626, 6/26/2013 12:00:00AM				
Constituent	Result	Units	PQL	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		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)	102	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	99.3	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.0	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/27/13	06/29/13 02:41	JCC	MS-V14	1	BWF1998



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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWF1998						
Benzene	BWF1998-BLK1	ND	ug/L	0.50		
Bromobenzene	BWF1998-BLK1	ND	ug/L	0.50		
Bromochloromethane	BWF1998-BLK1	ND	ug/L	0.50		
Bromodichloromethane	BWF1998-BLK1	ND	ug/L	0.50		
Bromoform	BWF1998-BLK1	ND	ug/L	0.50		
Bromomethane	BWF1998-BLK1	ND	ug/L	1.0		
n-Butylbenzene	BWF1998-BLK1	ND	ug/L	0.50		
sec-Butylbenzene	BWF1998-BLK1	ND	ug/L	0.50		
tert-Butylbenzene	BWF1998-BLK1	ND	ug/L	0.50		
Carbon tetrachloride	BWF1998-BLK1	ND	ug/L	0.50		
Chlorobenzene	BWF1998-BLK1	ND	ug/L	0.50		
Chloroethane	BWF1998-BLK1	ND	ug/L	0.50		
Chloroform	BWF1998-BLK1	ND	ug/L	0.50		
Chloromethane	BWF1998-BLK1	ND	ug/L	0.50		
2-Chlorotoluene	BWF1998-BLK1	ND	ug/L	0.50		
4-Chlorotoluene	BWF1998-BLK1	ND	ug/L	0.50		
Dibromochloromethane	BWF1998-BLK1	ND	ug/L	0.50		
1,2-Dibromo-3-chloropropane	BWF1998-BLK1	ND	ug/L	1.0		
1,2-Dibromoethane	BWF1998-BLK1	ND	ug/L	0.50		
Dibromomethane	BWF1998-BLK1	ND	ug/L	0.50		
1,2-Dichlorobenzene	BWF1998-BLK1	ND	ug/L	0.50		
1,3-Dichlorobenzene	BWF1998-BLK1	ND	ug/L	0.50		
1,4-Dichlorobenzene	BWF1998-BLK1	ND	ug/L	0.50		
Dichlorodifluoromethane	BWF1998-BLK1	ND	ug/L	0.50		
1,1-Dichloroethane	BWF1998-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BWF1998-BLK1	ND	ug/L	0.50		
1,1-Dichloroethene	BWF1998-BLK1	ND	ug/L	0.50		
cis-1,2-Dichloroethene	BWF1998-BLK1	ND	ug/L	0.50		
trans-1,2-Dichloroethene	BWF1998-BLK1	ND	ug/L	0.50		
Total 1,2-Dichloroethene	BWF1998-BLK1	ND	ug/L	1.0		
1,2-Dichloropropane	BWF1998-BLK1	ND	ug/L	0.50		
1,3-Dichloropropane	BWF1998-BLK1	ND	ug/L	0.50		
2,2-Dichloropropane	BWF1998-BLK1	ND	ug/L	0.50		
1,1-Dichloropropene	BWF1998-BLK1	ND	ug/L	0.50		



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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWF1998						
cis-1,3-Dichloropropene	BWF1998-BLK1	ND	ug/L	0.50		
trans-1,3-Dichloropropene	BWF1998-BLK1	ND	ug/L	0.50		
Total 1,3-Dichloropropene	BWF1998-BLK1	ND	ug/L	1.0		
Ethylbenzene	BWF1998-BLK1	ND	ug/L	0.50		
Hexachlorobutadiene	BWF1998-BLK1	ND	ug/L	0.50		
Isopropylbenzene	BWF1998-BLK1	ND	ug/L	0.50		
p-Isopropyltoluene	BWF1998-BLK1	ND	ug/L	0.50		
Methylene chloride	BWF1998-BLK1	ND	ug/L	1.0		
Methyl t-butyl ether	BWF1998-BLK1	ND	ug/L	0.50		
Naphthalene	BWF1998-BLK1	ND	ug/L	0.50		
n-Propylbenzene	BWF1998-BLK1	ND	ug/L	0.50		
Styrene	BWF1998-BLK1	ND	ug/L	0.50		
1,1,1,2-Tetrachloroethane	BWF1998-BLK1	ND	ug/L	0.50		
1,1,2,2-Tetrachloroethane	BWF1998-BLK1	ND	ug/L	0.50		
Tetrachloroethene	BWF1998-BLK1	ND	ug/L	0.50		
Toluene	BWF1998-BLK1	ND	ug/L	0.50		
1,2,3-Trichlorobenzene	BWF1998-BLK1	ND	ug/L	0.50		
1,2,4-Trichlorobenzene	BWF1998-BLK1	ND	ug/L	0.50		
1,1,1-Trichloroethane	BWF1998-BLK1	ND	ug/L	0.50		
1,1,2-Trichloroethane	BWF1998-BLK1	ND	ug/L	0.50		
Trichloroethene	BWF1998-BLK1	ND	ug/L	0.50		
Trichlorofluoromethane	BWF1998-BLK1	ND	ug/L	0.50		
1,2,3-Trichloropropane	BWF1998-BLK1	ND	ug/L	1.0		
1,1,2-Trichloro-1,2,2-trifluoroethane	BWF1998-BLK1	ND	ug/L	0.50		
1,2,4-Trimethylbenzene	BWF1998-BLK1	ND	ug/L	0.50		
1,3,5-Trimethylbenzene	BWF1998-BLK1	ND	ug/L	0.50		
Vinyl chloride	BWF1998-BLK1	ND	ug/L	0.50		
Total Xylenes	BWF1998-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BWF1998-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BWF1998-BLK1	ND	ug/L	10		
Diisopropyl ether	BWF1998-BLK1	ND	ug/L	0.50		
Ethanol	BWF1998-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BWF1998-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BWF1998-BLK1	ND	ug/L	50		

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWF1998						
1,2-Dichloroethane-d4 (Surrogate)	BWF1998-BLK1	105	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWF1998-BLK1	99.1	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWF1998-BLK1	97.7	%	80 - 120 (LCL - UCL)		



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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
QC Batch ID: BWF1998									
Benzene	BWF1998-BS1	LCS	24.654	25.000	ug/L	98.6		70 - 130	
Bromodichloromethane	BWF1998-BS1	LCS	26.816	25.000	ug/L	107		70 - 130	
Chlorobenzene	BWF1998-BS1	LCS	23.799	25.000	ug/L	95.2		70 - 130	
Chloroethane	BWF1998-BS1	LCS	24.325	25.000	ug/L	97.3		70 - 130	
1,4-Dichlorobenzene	BWF1998-BS1	LCS	25.567	25.000	ug/L	102		70 - 130	
1,1-Dichloroethane	BWF1998-BS1	LCS	25.470	25.000	ug/L	102		70 - 130	
1,1-Dichloroethene	BWF1998-BS1	LCS	26.155	25.000	ug/L	105		70 - 130	
Toluene	BWF1998-BS1	LCS	24.400	25.000	ug/L	97.6		70 - 130	
Trichloroethene	BWF1998-BS1	LCS	25.219	25.000	ug/L	101		70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	BWF1998-BS1	LCS	10.760	10.000	ug/L	108		75 - 125	
Toluene-d8 (Surrogate)	BWF1998-BS1	LCS	9.9900	10.000	ug/L	99.9		80 - 120	
4-Bromofluorobenzene (Surrogate)	BWF1998-BS1	LCS	10.630	10.000	ug/L	106		80 - 120	



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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits			
								Percent Recovery	RPD	Percent Recovery	Lab Quals
QC Batch ID: BWF1998		Used client sample: N									
Benzene	MS	1313237-06	ND	24.326	25.000	ug/L		97.3		70 - 130	
	MSD	1313237-06	ND	24.505	25.000	ug/L	0.7	98.0	20	70 - 130	
Bromodichloromethane	MS	1313237-06	ND	25.049	25.000	ug/L		100		70 - 130	
	MSD	1313237-06	ND	26.477	25.000	ug/L	5.5	106	20	70 - 130	
Chlorobenzene	MS	1313237-06	ND	23.750	25.000	ug/L		95.0		70 - 130	
	MSD	1313237-06	ND	24.320	25.000	ug/L	2.4	97.3	20	70 - 130	
Chloroethane	MS	1313237-06	ND	23.995	25.000	ug/L		96.0		70 - 130	
	MSD	1313237-06	ND	23.914	25.000	ug/L	0.3	95.7	20	70 - 130	
1,4-Dichlorobenzene	MS	1313237-06	ND	25.526	25.000	ug/L		102		70 - 130	
	MSD	1313237-06	ND	26.231	25.000	ug/L	2.7	105	20	70 - 130	
1,1-Dichloroethane	MS	1313237-06	ND	24.874	25.000	ug/L		99.5		70 - 130	
	MSD	1313237-06	ND	25.189	25.000	ug/L	1.3	101	20	70 - 130	
1,1-Dichloroethene	MS	1313237-06	ND	25.606	25.000	ug/L		102		70 - 130	
	MSD	1313237-06	ND	25.929	25.000	ug/L	1.3	104	20	70 - 130	
Toluene	MS	1313237-06	ND	24.214	25.000	ug/L		96.9		70 - 130	
	MSD	1313237-06	ND	24.918	25.000	ug/L	2.9	99.7	20	70 - 130	
Trichloroethene	MS	1313237-06	ND	24.725	25.000	ug/L		98.9		70 - 130	
	MSD	1313237-06	ND	25.391	25.000	ug/L	2.7	102	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1313237-06	ND	10.470	10.000	ug/L		105		75 - 125	
	MSD	1313237-06	ND	10.340	10.000	ug/L	1.2	103		75 - 125	
Toluene-d8 (Surrogate)	MS	1313237-06	ND	10.020	10.000	ug/L		100		80 - 120	
	MSD	1313237-06	ND	10.120	10.000	ug/L	1.0	101		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1313237-06	ND	10.580	10.000	ug/L		106		80 - 120	
	MSD	1313237-06	ND	10.710	10.000	ug/L	1.2	107		80 - 120	



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Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWG0766						
Acenaphthene	BWG0766-BLK1	ND	ug/L	2.0		
Acenaphthylene	BWG0766-BLK1	ND	ug/L	2.0		
Anthracene	BWG0766-BLK1	ND	ug/L	2.0		
Benzo[a]anthracene	BWG0766-BLK1	ND	ug/L	2.0		
Benzo[b]fluoranthene	BWG0766-BLK1	ND	ug/L	2.0		
Benzo[k]fluoranthene	BWG0766-BLK1	ND	ug/L	2.0		
Benzo[a]pyrene	BWG0766-BLK1	ND	ug/L	2.0		
Benzo[g,h,i]perylene	BWG0766-BLK1	ND	ug/L	2.0		
Benzoic acid	BWG0766-BLK1	ND	ug/L	10		
Benzyl alcohol	BWG0766-BLK1	ND	ug/L	2.0		
Benzyl butyl phthalate	BWG0766-BLK1	ND	ug/L	2.0		
bis(2-Chloroethoxy)methane	BWG0766-BLK1	ND	ug/L	2.0		
bis(2-Chloroethyl) ether	BWG0766-BLK1	ND	ug/L	2.0		
bis(2-Chloroisopropyl)ether	BWG0766-BLK1	ND	ug/L	2.0		
bis(2-Ethylhexyl)phthalate	BWG0766-BLK1	ND	ug/L	4.0		
4-Bromophenyl phenyl ether	BWG0766-BLK1	ND	ug/L	2.0		
4-Chloroaniline	BWG0766-BLK1	ND	ug/L	2.0		
2-Chloronaphthalene	BWG0766-BLK1	ND	ug/L	2.0		
4-Chlorophenyl phenyl ether	BWG0766-BLK1	ND	ug/L	2.0		
Chrysene	BWG0766-BLK1	ND	ug/L	2.0		
Dibenzo[a,h]anthracene	BWG0766-BLK1	ND	ug/L	3.0		
Dibenzofuran	BWG0766-BLK1	ND	ug/L	2.0		
1,2-Dichlorobenzene	BWG0766-BLK1	ND	ug/L	2.0		
1,3-Dichlorobenzene	BWG0766-BLK1	ND	ug/L	2.0		
1,4-Dichlorobenzene	BWG0766-BLK1	ND	ug/L	2.0		
3,3-Dichlorobenzidine	BWG0766-BLK1	ND	ug/L	10		
Diethyl phthalate	BWG0766-BLK1	ND	ug/L	2.0		
Dimethyl phthalate	BWG0766-BLK1	ND	ug/L	2.0		
Di-n-butyl phthalate	BWG0766-BLK1	ND	ug/L	2.0		
2,4-Dinitrotoluene	BWG0766-BLK1	ND	ug/L	2.0		
2,6-Dinitrotoluene	BWG0766-BLK1	ND	ug/L	2.0		
Di-n-octyl phthalate	BWG0766-BLK1	ND	ug/L	2.0		
Fluoranthene	BWG0766-BLK1	ND	ug/L	2.0		
Fluorene	BWG0766-BLK1	ND	ug/L	2.0		

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Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWG0766						
Hexachlorobenzene	BWG0766-BLK1	ND	ug/L	2.0		
Hexachlorobutadiene	BWG0766-BLK1	ND	ug/L	2.0		
Hexachlorocyclopentadiene	BWG0766-BLK1	ND	ug/L	2.0		
Hexachloroethane	BWG0766-BLK1	ND	ug/L	2.0		
Indeno[1,2,3-cd]pyrene	BWG0766-BLK1	ND	ug/L	2.0		
Isophorone	BWG0766-BLK1	ND	ug/L	2.0		
2-Methylnaphthalene	BWG0766-BLK1	ND	ug/L	2.0		
Naphthalene	BWG0766-BLK1	ND	ug/L	2.0		
2-Nitroaniline	BWG0766-BLK1	ND	ug/L	2.0		
3-Nitroaniline	BWG0766-BLK1	ND	ug/L	2.0		
4-Nitroaniline	BWG0766-BLK1	ND	ug/L	5.0		
Nitrobenzene	BWG0766-BLK1	ND	ug/L	2.0		
N-Nitrosodi-N-propylamine	BWG0766-BLK1	ND	ug/L	2.0		
N-Nitrosodiphenylamine	BWG0766-BLK1	ND	ug/L	2.0		
Phenanthrene	BWG0766-BLK1	ND	ug/L	2.0		
Pyrene	BWG0766-BLK1	ND	ug/L	2.0		
1,2,4-Trichlorobenzene	BWG0766-BLK1	ND	ug/L	2.0		
4-Chloro-3-methylphenol	BWG0766-BLK1	ND	ug/L	5.0		
2-Chlorophenol	BWG0766-BLK1	ND	ug/L	2.0		
2,4-Dichlorophenol	BWG0766-BLK1	ND	ug/L	2.0		
2,4-Dimethylphenol	BWG0766-BLK1	ND	ug/L	2.0		
4,6-Dinitro-2-methylphenol	BWG0766-BLK1	ND	ug/L	10		
2,4-Dinitrophenol	BWG0766-BLK1	ND	ug/L	10		
2-Methylphenol	BWG0766-BLK1	ND	ug/L	2.0		
3- & 4-Methylphenol	BWG0766-BLK1	ND	ug/L	2.0		
2-Nitrophenol	BWG0766-BLK1	ND	ug/L	2.0		
4-Nitrophenol	BWG0766-BLK1	ND	ug/L	2.0		
Pentachlorophenol	BWG0766-BLK1	ND	ug/L	10		
Phenol	BWG0766-BLK1	ND	ug/L	2.0		
2,4,5-Trichlorophenol	BWG0766-BLK1	ND	ug/L	5.0		
2,4,6-Trichlorophenol	BWG0766-BLK1	ND	ug/L	5.0		
2-Fluorophenol (Surrogate)	BWG0766-BLK1	65.1	%	30 - 120 (LCL - UCL)		
Phenol-d5 (Surrogate)	BWG0766-BLK1	48.4	%	12 - 110 (LCL - UCL)		
Nitrobenzene-d5 (Surrogate)	BWG0766-BLK1	98.8	%	60 - 130 (LCL - UCL)		

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10461 Old Placerville Rd, Suite 170
Sacramento, CA 95827

Reported: 07/12/2013 15:14
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)**Quality Control Report - Method Blank Analysis**

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWG0766						
2-Fluorobiphenyl (Surrogate)	BWG0766-BLK1	99.7	%	55 - 125 (LCL - UCL)		
2,4,6-Tribromophenol (Surrogate)	BWG0766-BLK1	103	%	40 - 150 (LCL - UCL)		
p-Terphenyl-d14 (Surrogate)	BWG0766-BLK1	101	%	40 - 150 (LCL - UCL)		



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Project Number: 351641
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Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
QC Batch ID: BWG0766									
Acenaphthene	BWG0766-BS1	LCS	50.900	50.000	ug/L	102		50 - 120	
1,4-Dichlorobenzene	BWG0766-BS1	LCS	41.360	50.000	ug/L	82.7		50 - 120	
2,4-Dinitrotoluene	BWG0766-BS1	LCS	70.970	50.000	ug/L	142		50 - 120	L01
Hexachlorobenzene	BWG0766-BS1	LCS	54.030	50.000	ug/L	108		60 - 120	
Hexachlorobutadiene	BWG0766-BS1	LCS	35.280	50.000	ug/L	70.6		40 - 110	
Hexachloroethane	BWG0766-BS1	LCS	39.900	50.000	ug/L	79.8		40 - 120	
Nitrobenzene	BWG0766-BS1	LCS	49.050	50.000	ug/L	98.1		50 - 120	
N-Nitrosodi-N-propylamine	BWG0766-BS1	LCS	43.490	50.000	ug/L	87.0		50 - 120	
Pyrene	BWG0766-BS1	LCS	52.100	50.000	ug/L	104		40 - 140	
1,2,4-Trichlorobenzene	BWG0766-BS1	LCS	42.360	50.000	ug/L	84.7		45 - 120	
4-Chloro-3-methylphenol	BWG0766-BS1	LCS	50.010	50.000	ug/L	100		50 - 120	
2-Chlorophenol	BWG0766-BS1	LCS	42.080	50.000	ug/L	84.2		50 - 120	
2-Methylphenol	BWG0766-BS1	LCS	42.620	50.000	ug/L	85.2		40 - 110	
3- & 4-Methylphenol	BWG0766-BS1	LCS	72.320	100.00	ug/L	72.3		40 - 110	
4-Nitrophenol	BWG0766-BS1	LCS	7.8100	50.000	ug/L	15.6		10 - 110	
Pentachlorophenol	BWG0766-BS1	LCS	50.490	50.000	ug/L	101		30 - 120	
Phenol	BWG0766-BS1	LCS	25.840	50.000	ug/L	51.7		20 - 110	
2,4,6-Trichlorophenol	BWG0766-BS1	LCS	46.800	50.000	ug/L	93.6		54 - 120	
2-Fluorophenol (Surrogate)	BWG0766-BS1	LCS	51.770	80.000	ug/L	64.7		30 - 120	
Phenol-d5 (Surrogate)	BWG0766-BS1	LCS	38.660	80.000	ug/L	48.3		12 - 110	
Nitrobenzene-d5 (Surrogate)	BWG0766-BS1	LCS	78.790	80.000	ug/L	98.5		60 - 130	
2-Fluorobiphenyl (Surrogate)	BWG0766-BS1	LCS	72.960	80.000	ug/L	91.2		55 - 125	
2,4,6-Tribromophenol (Surrogate)	BWG0766-BS1	LCS	80.560	80.000	ug/L	101		40 - 150	
p-Terphenyl-d14 (Surrogate)	BWG0766-BS1	LCS	43.660	40.000	ug/L	109		40 - 150	



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Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits			
								Percent Recovery	RPD	Percent Recovery	Lab Quals
QC Batch ID: BWG0766		Used client sample: N									
Acenaphthene	MS	1313237-38	ND	53.200	50.000	ug/L		106		50 - 120	
	MSD	1313237-38	ND	51.410	50.000	ug/L	3.4	103	30	50 - 120	
1,4-Dichlorobenzene	MS	1313237-38	ND	41.900	50.000	ug/L		83.8		47 - 120	
	MSD	1313237-38	ND	43.480	50.000	ug/L	3.7	87.0	30	47 - 120	
2,4-Dinitrotoluene	MS	1313237-38	ND	72.890	50.000	ug/L		146		50 - 130	Q03
	MSD	1313237-38	ND	70.910	50.000	ug/L	2.8	142	30	50 - 130	Q03
Hexachlorobenzene	MS	1313237-38	ND	53.990	50.000	ug/L		108		62 - 120	
	MSD	1313237-38	ND	58.190	50.000	ug/L	7.5	116	30	62 - 120	
Hexachlorobutadiene	MS	1313237-38	ND	37.390	50.000	ug/L		74.8		40 - 110	
	MSD	1313237-38	ND	38.440	50.000	ug/L	2.8	76.9	30	40 - 110	
Hexachloroethane	MS	1313237-38	ND	41.020	50.000	ug/L		82.0		40 - 120	
	MSD	1313237-38	ND	44.750	50.000	ug/L	8.7	89.5	30	40 - 120	
Nitrobenzene	MS	1313237-38	ND	49.890	50.000	ug/L		99.8		50 - 120	
	MSD	1313237-38	ND	50.400	50.000	ug/L	1.0	101	30	50 - 120	
N-Nitrosodi-N-propylamine	MS	1313237-38	ND	44.760	50.000	ug/L		89.5		50 - 120	
	MSD	1313237-38	ND	44.500	50.000	ug/L	0.6	89.0	30	50 - 120	
Pyrene	MS	1313237-38	ND	47.430	50.000	ug/L		94.9		40 - 140	
	MSD	1313237-38	ND	51.930	50.000	ug/L	9.1	104	30	40 - 140	
1,2,4-Trichlorobenzene	MS	1313237-38	ND	43.860	50.000	ug/L		87.7		43 - 120	
	MSD	1313237-38	ND	45.210	50.000	ug/L	3.0	90.4	30	43 - 120	
4-Chloro-3-methylphenol	MS	1313237-38	ND	49.580	50.000	ug/L		99.2		50 - 120	
	MSD	1313237-38	ND	52.000	50.000	ug/L	4.8	104	30	50 - 120	
2-Chlorophenol	MS	1313237-38	ND	40.080	50.000	ug/L		80.2		50 - 120	
	MSD	1313237-38	ND	41.330	50.000	ug/L	3.1	82.7	30	50 - 120	
2-Methylphenol	MS	1313237-38	ND	39.660	50.000	ug/L		79.3		40 - 110	
	MSD	1313237-38	ND	45.230	50.000	ug/L	13.1	90.5	30	40 - 110	
3- & 4-Methylphenol	MS	1313237-38	ND	74.060	100.00	ug/L		74.1		40 - 110	
	MSD	1313237-38	ND	74.340	100.00	ug/L	0.4	74.3	30	40 - 110	
4-Nitrophenol	MS	1313237-38	ND	7.9100	50.000	ug/L		15.8		10 - 110	
	MSD	1313237-38	ND	7.3000	50.000	ug/L	8.0	14.6	30	10 - 110	
Pentachlorophenol	MS	1313237-38	ND	49.850	50.000	ug/L		99.7		30 - 120	
	MSD	1313237-38	ND	46.230	50.000	ug/L	7.5	92.5	30	30 - 120	
Phenol	MS	1313237-38	ND	23.790	50.000	ug/L		47.6		20 - 110	
	MSD	1313237-38	ND	24.660	50.000	ug/L	3.6	49.3	30	20 - 110	
2,4,6-Trichlorophenol	MS	1313237-38	ND	48.960	50.000	ug/L		97.9		50 - 120	
	MSD	1313237-38	ND	49.830	50.000	ug/L	1.8	99.7	30	50 - 120	

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Reported: 07/12/2013 15:14
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Base Neutral and Acid Extractables Organic Analysis (EPA Method 8270C)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		
								Percent Recovery	Percent RPD	Lab Quals
QC Batch ID: BWG0766			Used client sample: N							
2-Fluorophenol (Surrogate)	MS	1313237-38	ND	48.320	80.000	ug/L		60.4	30 - 120	
	MSD	1313237-38	ND	53.510	80.000	ug/L	10.2	66.9	30 - 120	
Phenol-d5 (Surrogate)	MS	1313237-38	ND	35.780	80.000	ug/L		44.7	12 - 110	
	MSD	1313237-38	ND	37.930	80.000	ug/L	5.8	47.4	12 - 110	
Nitrobenzene-d5 (Surrogate)	MS	1313237-38	ND	76.630	80.000	ug/L		95.8	60 - 130	
	MSD	1313237-38	ND	83.520	80.000	ug/L	8.6	104	60 - 130	
2-Fluorobiphenyl (Surrogate)	MS	1313237-38	ND	78.130	80.000	ug/L		97.7	55 - 125	
	MSD	1313237-38	ND	77.660	80.000	ug/L	0.6	97.1	55 - 125	
2,4,6-Tribromophenol (Surrogate)	MS	1313237-38	ND	80.290	80.000	ug/L		100	40 - 150	
	MSD	1313237-38	ND	82.380	80.000	ug/L	2.6	103	40 - 150	
p-Terphenyl-d14 (Surrogate)	MS	1313237-38	ND	38.150	40.000	ug/L		95.4	40 - 150	
	MSD	1313237-38	ND	38.050	40.000	ug/L	0.3	95.1	40 - 150	



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Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWG0439						
Diesel Range Organics (C12 - C24)	BWG0439-BLK1	ND	ug/L	40		
Tetracosane (Surrogate)	BWG0439-BLK1	93.3	%	30 - 150 (LCL - UCL)		



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Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							RPD	Percent Recovery	
QC Batch ID: BWG0439									
Diesel Range Organics (C12 - C24)	BWG0439-BS1	LCS	569.43	500.00	ug/L	114		50 - 140	
Tetracosane (Surrogate)	BWG0439-BS1	LCS	19.742	20.000	ug/L	98.7		30 - 150	



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Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits			
								Percent Recovery	RPD	Percent Recovery	Lab Quals
QC Batch ID: BWG0439		Used client sample: N									
Diesel Range Organics (C12 - C24)	MS	1310670-82	ND	479.90	500.00	ug/L		96.0		50 - 140	
	MSD	1310670-82	ND	409.54	500.00	ug/L	15.8	81.9	30	50 - 140	
Tetracosane (Surrogate)	MS	1310670-82	ND	17.626	20.000	ug/L		88.1		30 - 150	
	MSD	1310670-82	ND	19.119	20.000	ug/L	8.1	95.6		30 - 150	



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EPA Method 1664

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWG0250						
Oil and Grease	BWG0250-BLK1	ND	mg/L	5.0		



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EPA Method 1664**Quality Control Report - Laboratory Control Sample**

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	<u>Control Limits</u>		Lab Quals
							Percent Recovery	RPD	
QC Batch ID: BWG0250	BWG0250-BS1	LCS	32.800	40.600	mg/L	80.8		78 - 114	
Oil and Grease									



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EPA Method 1664

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		
									RPD	Percent Recovery	Lab Quals
QC Batch ID: BWG0250		Used client sample: N									
Oil and Grease	DUP	1313301-02	2.3000	ND		mg/L			18		
	MS	1313301-02	2.3000	34.350	40.600	mg/L		78.9		78 - 114	
	MSD	1313301-02	2.3000	32.150	40.600	mg/L	6.6	73.5	18	78 - 114	Q03



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Metals Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BWG0042						
Total Chromium	BWG0042-BLK1	ND	ug/L	10		



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Metals Analysis

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	Control Limits		Lab Quals
							Percent Recovery	RPD	
QC Batch ID: BWG0042	BWG0042-BS1	LCS	197.33	200.00	ug/L	98.7			85 - 115
Total Chromium									



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Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		
									RPD	Percent Recovery	Lab Quals
QC Batch ID: BWG0042		Used client sample: N									
Total Chromium	DUP	1313422-03	1.5466	ND		ug/L			20		
	MS	1313422-03	1.5466	199.81	200.00	ug/L		99.1		75 - 125	
	MSD	1313422-03	1.5466	206.85	200.00	ug/L	3.5	103	20	75 - 125	



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Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
L01	The Laboratory Control Sample Water (LCSW) recovery is not within laboratory established control limits.
Q03	Matrix spike recovery(s) is(are) not within the control limits.