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Timothy L. Bishop
Project Manager
Marketing Business Unit

Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 790-6463
TimBishop@chevron.com

January 28, 2014

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 January 28, 2014.

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,

Tim Bishop
Project Manager

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

AECOM
2020 L Street
Suite 400
Sacramento, CA 95811
www.aecom.com

916 414 5800 tel
916 414 5850 fax

January 28, 2014

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

Subject: Second 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's (EMC's) affiliate, Union Oil Company of California ("Union Oil"), AECOM has been authorized to prepare the second 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 results for samples collected from wells associated with the site during the second semi-annual sampling event in December 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 December 20, 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 0.02 feet per foot (**Figure 2**). The depth to groundwater at the site ranged from 7.87 to 10.38 feet below the top of well casings (126.37 to 130.10 feet above mean sea level).

Groundwater Sampling and Analytical Results

Groundwater samples were collected from monitoring wells MW-1 through MW-9 on December 20, 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 January 7, 2014, 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 3**). 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 well MW-3 above the laboratory practical quantitation limit at a concentration of 41 micrograms per liter (µg/L).
- MTBE was detected for three wells above the laboratory practical quantitation limit, MW-2, MW-5, and MW-6, at 0.78 µg/L, 14 µg/L, and 10 µg/L, respectively.
- Monitoring well MW-5 continues to have concentrations of TPH-g and BTEX.
- Low concentrations of toluene ranging from 0.65 µg/L to 1.8 µg/L were detected for all site wells . These values are below the San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (ESL) of 40 µg/L. The low concentrations appear to be the result of sample collection cross contamination and are not indicative of site conditions.
- TBA was detected for well MW-5 above the laboratory practical quantitation limit at a concentration of 230 µg/L. This concentration is consistent with historical TBA concentrations at this well.

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

Approximately 75.5 gallons of purge water was generated during the second semi-annual 2013 groundwater monitoring event. The purge water and decontamination water generated during sampling activities were transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.

Conclusions and Recommendations

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 above ESLs for off-site monitoring wells, which supports the localization of groundwater impacts on-site.
- No impacts have been observed above ESLs for the deep groundwater monitoring well, MW-7, since 1998.

Future Activities

Concurrent with the submittal of this groundwater monitoring report, AECOM will submit a low-threat closure request for this site which includes an updated conceptual site model. AECOM recommends that no future groundwater sampling be conducted.

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) 414-5863.

Sincerely,

James Harms
Project Manager

Jessica Law, PG #8840
Project Geologist

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

Enclosures:

Tables

Table 1	Current Groundwater Monitoring Data and Analytical Results
Table 2	Current Groundwater Analytical Results - Oxygenate Compounds
Table 3	Historical Groundwater Monitoring Data and Analytical Results
Table 4	Historical Groundwater Analytical Results - Oxygenate Compounds and Total Chromium

Figures

Figure 1	Site Location Map
Figure 2	Groundwater Elevation Contour Map
Figure 3	Groundwater Concentration Map

Attachments

Attachment A	December 20, 2013, Groundwater Data Field Sheets
Attachment B	BC Labs Analytical Report #1327950

TABLES

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

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TOG (mg/L)	TPH-d (µg/L)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
MW-1	137.57	12/20/2013	7.87	129.70	0	--	--	<50	<0.50	1.4	<0.50	<1.0	
MW-2	139.85	12/20/2013	9.75	130.10	0	--	--	<50	<0.50	0.65	<0.50	<1.0	
MW-3	138.89	12/20/2013	8.80	130.09	0	<5.0	<50	<50	<0.50	1.5	<0.50	<1.0	
MW-4	137.81	12/20/2013	8.65	129.16	0	--	--	<50	<0.50	1.4	<0.50	<1.0	
MW-5	137.35	12/20/2013	9.10	128.25	0	--	--	300	7.4	1.8	24	5.1	
MW-6	138.69	12/20/2013	9.03	129.66	0	--	--	<50	<0.50	1.4	<0.50	<1.0	
MW-7	138.74	12/20/2013	9.05	129.69	0	--	--	<50	<0.50	1.4	<0.50	<1.0	
MW-8	136.22	12/20/2013	9.85	126.37	0	--	--	<50	<0.50	1.4	<0.50	<1.0	
MW-9	137.11	12/20/2013	10.38	126.73	0	--	--	<50	<0.50	1.3	<0.50	<1.0	
USTW	--	12/20/2013	9.07	--	--	--	--	--	--	--	--	--	
QA	--	12/20/2013	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	

NOTES:

* TOC and GWE are in feet above mean sea level

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

TPH-d analyzed by Unites 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	12/20/2013	<0.50	--	<250	--	--	--	<0.50	<0.50
MW-2	12/20/2013	0.78	--	<250	--	--	--	<0.50	<0.50
MW-3	12/20/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-4	12/20/2013	<0.50	--	<250	--	--	--	<0.50	<0.50
MW-5	12/20/2013	14	230	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-6	12/20/2013	10	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-7	12/20/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-8	12/20/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-9	12/20/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
QA	12/20/2013	<0.50	--	<250	--	--	--	<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

QA = Trip blank

-- = Not available/Not analyzed

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

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TOG (mg/L)	TPH-d (µg/L)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/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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WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TOG (mg/L)	TPH-d (µg/L)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/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
	137.57	12/20/2013	7.87	129.70	0	--	--	<50	<0.50	1.4	<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

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Unocal No. 4625 (351641)
3070 Fruitvale Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TOG (mg/L)	TPH-d (µg/L)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/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
	139.85	12/20/2013	9.75	130.10	0	--	--	<50	<0.50	0.65	<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

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WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TOG (mg/L)	TPH-d (µg/L)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/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	<0.50	<0.50	<0.50	<1.0
	138.89	05/03/2003	5.88	133.01	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
	138.89	08/01/2003	8.52	130.37	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
	138.89	10/30/2003	10.05	128.84	0	--	<50	<50	0.62	0.83	<0.50	<1.0
	138.89	01/29/2004	6.58	132.31	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
	138.89	05/27/2004	8.51	130.38	0	--	--	<50	<0.50	<0.50	<0.50	<1.0
	138.89	08/31/2004	9.72	129.17	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
	138.89	11/18/2004	7.20	131.69	0	--	<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	<0.50	<0.50	<0.50	<1.0
	138.89	06/22/2005	7.31	131.58	0	--	--	<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	<0.50	<0.50	<0.50	<1.0
	138.89	12/20/2005	8.03	130.86	0	--	<200	<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	61	<0.50	<0.50	<0.50	<1.0
	138.89	06/12/2006	7.70	131.19	0	--	<200	<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	<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	<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	<0.50	<0.50	<0.50	<0.50
	138.89	09/27/2007	9.47	129.42	0	--	87	<50	<0.50	<0.50	<0.50	<0.50
	138.89	12/26/2007	7.00	131.89	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
	138.89	03/26/2008	7.77	131.12	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
	138.89	06/17/2008	9.15	129.74	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
	138.89	09/15/2008	9.79	129.10	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
	138.89	12/30/2008	7.24	131.65	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0
	138.89	03/30/2009	7.04	131.85	0	--	<50	<50	<0.50	<0.50	<0.50	<1.0

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WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TOG (mg/L)	TPH-d (µg/L)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/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
	138.89	12/20/2013	8.80	130.09	0	<5.0	<50	<50	<0.50	1.5	<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* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TOG (mg/L)	TPH-d (µg/L)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/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
	137.81	12/20/2013	8.65	129.16	0	--	--	<50	<0.50	1.4	<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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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
	137.35	12/20/2013	9.10	128.25	0	--	--	300	7.4	1.8	24	5.1
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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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
	138.69	12/20/2013	9.03	129.66	0	--	--	<50	<0.50	1.4	<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* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TOG (mg/L)	TPH-d (µg/L)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/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
	138.74	12/20/2013	9.05	129.69	0	--	--	<50	<0.50	1.4	<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
	136.22	12/20/2013	9.85	126.37	0	--	--	<50	<0.50	1.4	<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* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TOG (mg/L)	TPH-d (µg/L)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/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
	137.11	12/20/2013	10.38	126.73	0	--	--	<50	<0.50	1.3	<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* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TOG (mg/L)	TPH-d (µg/L)	TPH-g (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/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							
	--	12/20/2013	9.07	--	0	--	--	--	--	--	--	--

NOTES:

* TOC and GWE are in feet above mean sea level
BTEX compounds analyzed by Unites States Environmental Protection Agency Method 8260B
TPH-d analyzed by Unites States Environmental Protection Agency Method 8015B/TPHd
TPH-g analyzed by Luft-GC/MS method.
TOG analyzed by Environmental Protection Agency Method 1664A HEM
TPH-g reported as TPPH (total purgeable petroluem hydrocarbons) on some laboratory reports

ID = Identification
TOC = Top of casing
ft = Feet
fbg = feet below grade
DTW = Depth to water
GWE = Groundwater elevation
-- = Not available/Not analyzed
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
[1] = TPH-g analyzed with Unites States Environmental Protection Agency Method SW8015
<# = Analyte not detected at or above indicated practical quantitation limit

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	--
	12/20/2013	<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	--
	12/20/2013	0.78	--	<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
	12/20/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	41
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
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	12/30/2010	<0.50	--	<250	--	--	--	<0.50	<0.50	--
(Continued)	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	--
	12/20/2013	<0.50	--	<250	--	--	--	<0.50	<0.50	--
MW-5	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	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds and Total Chromium
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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	12/30/2008	150	300	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
(Continued)	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	--
	06/26/2013	9.7	22	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/20/2013	14	230	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
MW-6	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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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-6	9/27/2007	190	110	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
(Continued)	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	--
	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	--
	12/20/2013	10	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--
MW-7	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	--

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-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	--
	12/20/2013	<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	--
	12/20/2013	<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	--
	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	--
MW-9	06/04/2012	<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)
(Continued)	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	--
	12/20/2013	<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	--	--	--	--	--	--	--	--	--
	12/20/2013	--	--	--	--	--	--	--	--	--

NOTES:

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

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

ID = Identification

-- = Not available/Not Analyzed

µg/L = Micrograms per liter

MTBE = Methyl t-butyl ether

TBA = T-butyl alcohol

DIPE = Diisopropyl ether

ETBE = Ethyl t-butyl ether

TAME = T-amyl methyl ether

EDB = 1,2-dibromoethane

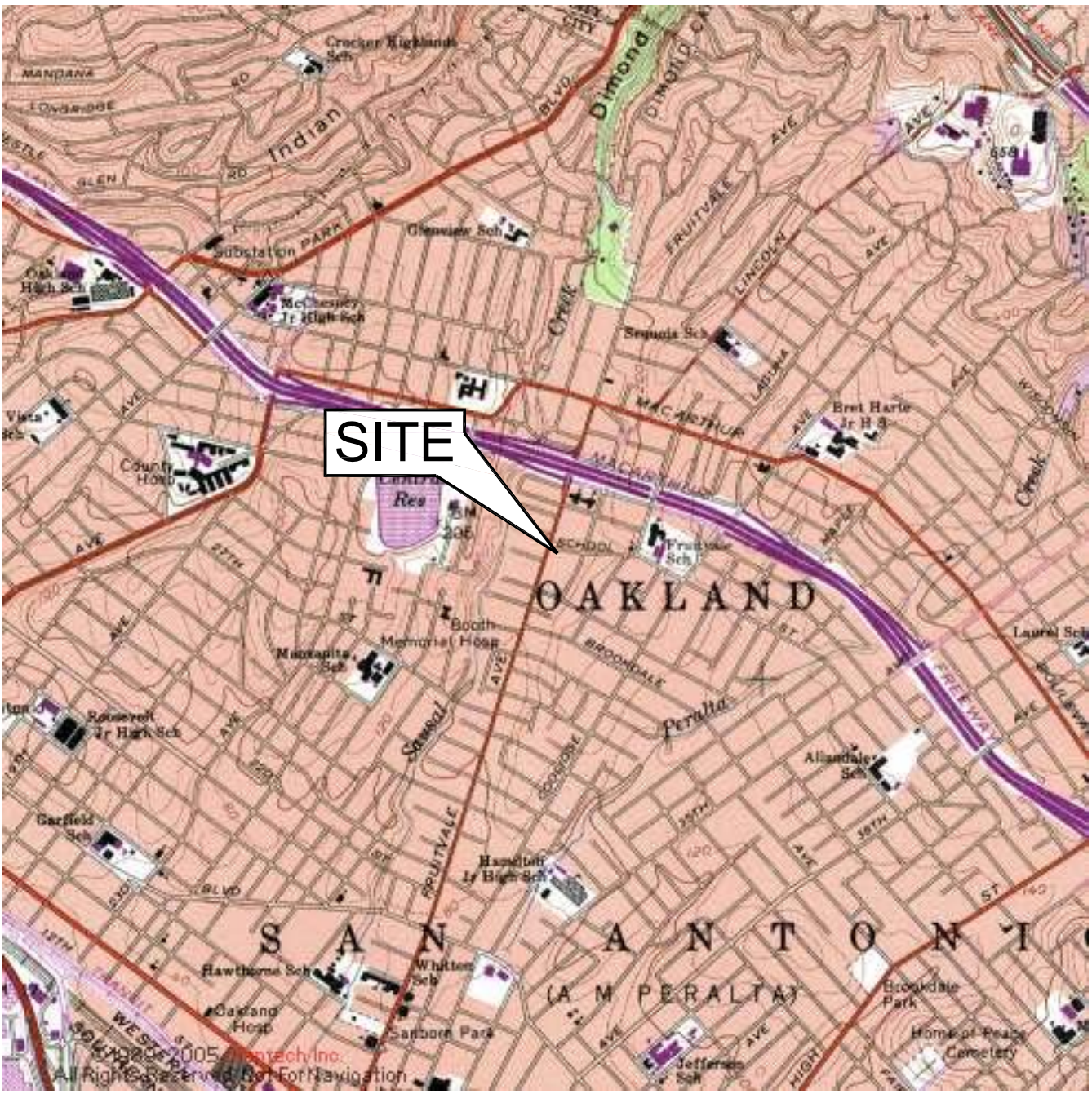
EDC = 1,2-dichloroethane

ND = Not detected

[2] = MTBE analyzed using Unites States Environmental Protection Agency Method 8021B

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

FIGURES



North

0 900 1800 FT

SCALE

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND EAST QUADRANGLE (1973)
BASE MAP PROVIDED BY DELTA CONSULTANTS, INC.

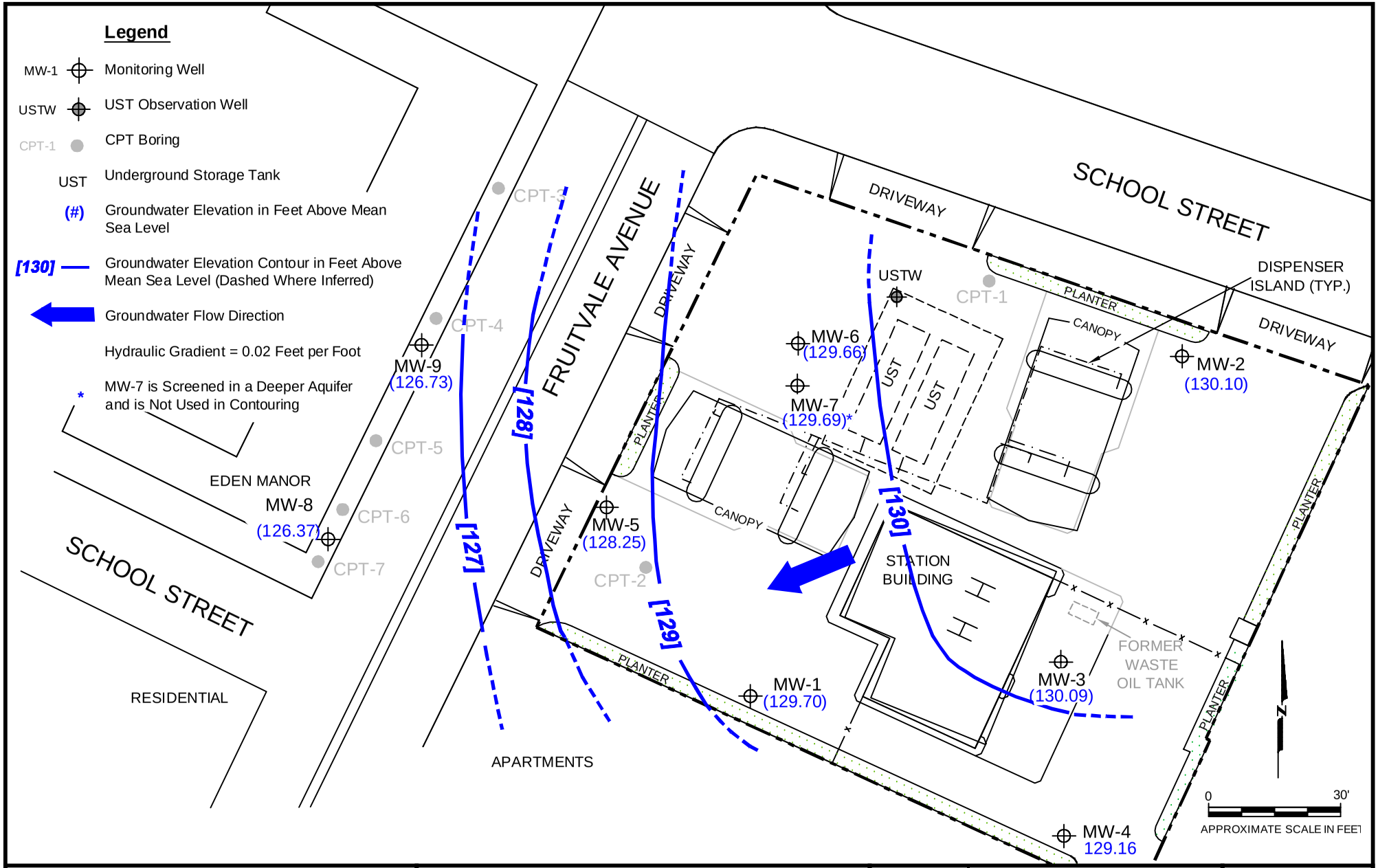
FIGURE 1

SITE LOCATION MAP

UNOCAL No. 4625 (351641)
3070 FRUITVALE AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 60284062	DRAWN BY CD 07/25/2013
FILE NO. 351641	PREPARED BY CD
REVISION NO.	REVIEWED BY JH

AECOM



GROUNDWATER ELEVATION CONTOUR MAP
Second Semi-Annual 2013

Unocal No. 4625 (351641)
3070 Fruitvale Avenue, Oakland, California

SCALE:	DATE:	PROJECT NUMBER:
1" = 30'	01/15/2014	60284062

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

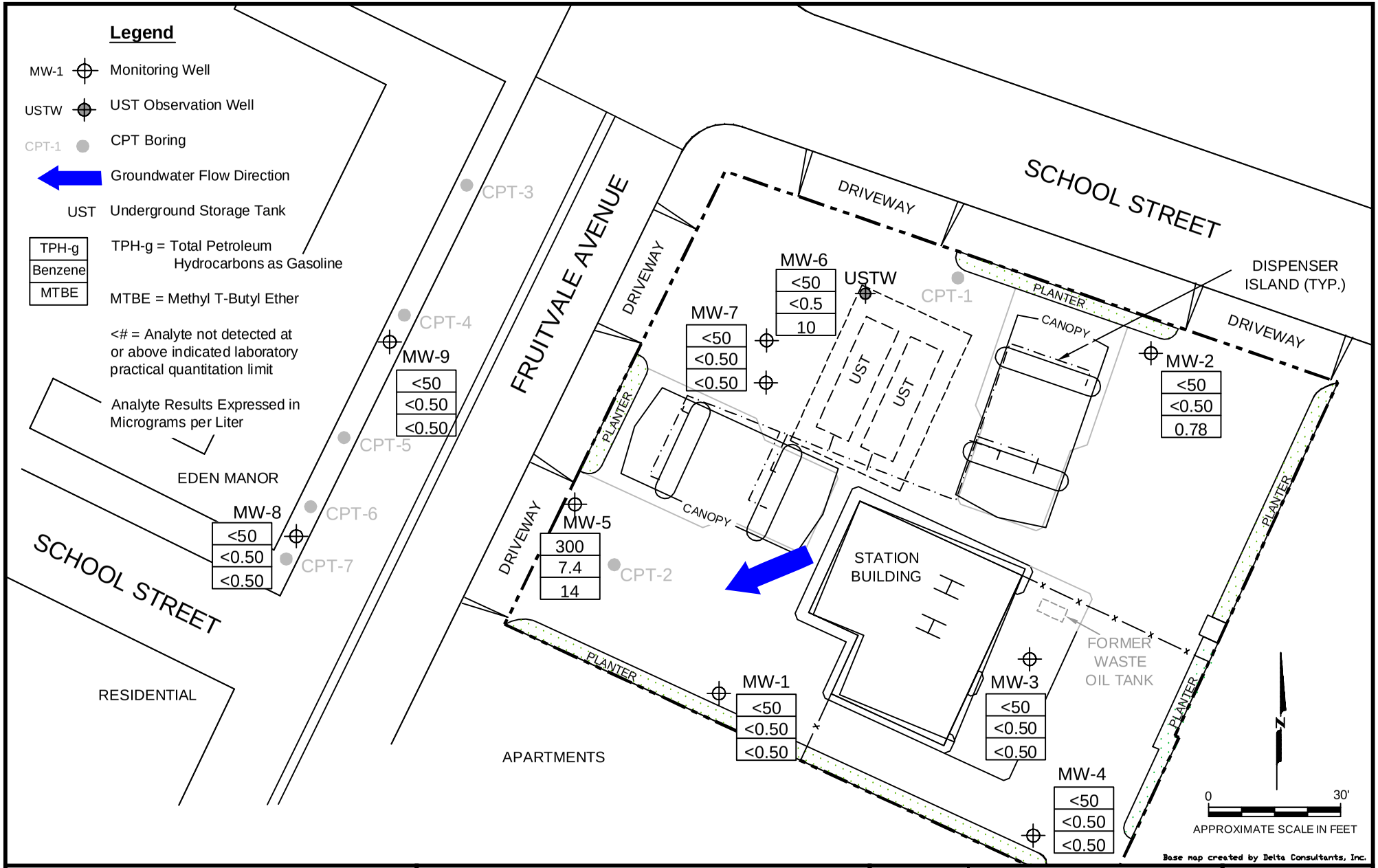
DESIGNED BY:	
DRAWN BY:	JH
CHECKED BY:	JL
APPROVED BY:	JH

REVISIONS

NO.:	DESCRIPTION:	DATE:	BY:
1	PG Edits	1/20	JH

FIGURE NUMBER:

2



GROUNDWATER CONCENTRATION MAP

Second Semi-Annual 2013

Unocal No. 4625 (351641)

3070 Fruitvale Avenue, Oakland, California

SCALE:	DATE:	PROJECT NUMBER:
1" = 30'	01/15/2014	60284062

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

DESIGNED BY:	
DRAWN BY:	JH
CHECKED BY:	JL
APPROVED BY:	JH

REVISIONS			
NO.:	DESCRIPTION:	DATE:	BY:

FIGURE NUMBER: 3

ATTACHMENT A

DECEMBER 20, 2013, GROUNDWATER DATA FIELD SHEETS

GETTLER-RYAN INC.

TRANSMITTAL

January 3, 2014
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.
6805 Sierra Court, Suite G
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 **Second Semi-Annual Event of December 20, 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
Site Address: 3070 Fruitvale Avenue
City: Oakland, CA

Job #: 385642
Event Date: 12/20/13
Sampler: JH

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-1	o/c	M	o/c					~	~	8" 13L	~
MW-2	o/c	M	o/c							8" 13L	
MW-3	o/c	M	o/c								
MW-4	o/c	M	o/c								
MW-5	o/c									8" emco	
MW-6	o/c			1x5	o/c						
MW-7	o/c	M	o/c	1x3	o/c					12" emco	
MW-8	o/c										
MW-9	o/c										
UST W	o/c									12" Morrison	

Comments

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 Job Number: 385642
Site Address: 3070 Fruitvale Avenue Event Date: 12/20/13 (inclusive)
City: Oakland, CA Sampler: JH

Well ID MW-1 Date Monitored: 12/20/13
Well Diameter (2) 6 in.
Total Depth 25.10 ft.
Depth to Water 7.87 ft.

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 then 0.50 ft.

17.23 xVF .17 = 2.92 x3 case volume = Estimated Purge Volume: 8.78 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.31

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	X
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

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

Start Time (purge): 0845 Weather Conditions: Clear
Sample Time/Date: 0930 / 12/20/13 Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: 1 gpm. Sediment Description: None
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 9.67

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (S))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
0848	3	7.22	597	20.7		
0857	6	7.15	583	20.6		
0854	9	7.09	568	20.4		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	3 x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/EDB/EDC(8260B)/ ETHANOL(8260)
MW-1	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 Job Number: 385642
Site Address: 3070 Fruitvale Avenue Event Date: 12/20/13 (inclusive)
City: Oakland, CA Sampler: SH

Well ID MW-2 Date Monitored: 12/20/13
Well Diameter 2/6 in.
Total Depth 24.37 ft.
Depth to Water 9.75 ft.

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 then 0.50 ft.

14.62 xVF .17 = 2.48 x3 case volume = Estimated Purge Volume: 7.45 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.67

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	X
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

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

Start Time (purge): 1230 Weather Conditions: Clear
Sample Time/Date: 1305 / 12/20/13 Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: 1 gpm. Sediment Description: Low
Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 10.61

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (US))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
1233	2.5	7.22	394	20.7		
1236	5.0	7.14	412	20.6		
1239	7.5	7.10	441	20.4		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	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: _____

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 Job Number: 385642
Site Address: 3070 Fruitvale Avenue Event Date: 12/20/13 (inclusive)
City: Oakland, CA Sampler: JH

Well ID MW-3
Well Diameter 2/6 in.
Total Depth 25.18 ft.
Depth to Water 8.80 ft.
16.38 xVF .17 = 2.78

Date Monitored: 12/20/13

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 then 0.50 ft.

x3 case volume = Estimated Purge Volume: 8.35 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.07

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump X
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

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

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

Start Time (purge): 1325 Weather Conditions: Clear
Sample Time/Date: 1400 / 12/20/13 Water Color: Cloudy Odor: Y / N Light
Approx. Flow Rate: 1 gpm. Sediment Description: Light
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 9.14

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1328	3	7.31	379	20.9		
1331	6	7.26	395	20.7		
1334	9	7.11	410	20.6		

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)
MW-3	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)
	2 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:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351641 / 4625 Job Number: 385642
Site Address: 3070 Fruitvale Avenue Event Date: 12/20/13 (inclusive)
City: Oakland, CA Sampler: JH

Well ID MW-4 Date Monitored: 12/20/13
Well Diameter Ø16 in.
Total Depth 24.45 ft.
Depth to Water 8.65 ft.

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 then 0.50 ft.

15.80 xVF .17 = 2.68 x3 case volume = Estimated Purge Volume: 8.05 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.81

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	x
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	x
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

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

Start Time (purge): 1420 Weather Conditions: clear
Sample Time/Date: 1455 / 12/20/13 Water Color: cloudy Odor: Y / N
Approx. Flow Rate: 1 gpm. Sediment Description: Light
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 11.80

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1423	3	7.38	436	20.4		
1426	6	7.30	495	20.1		
1428	8	7.26	512	20.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	3 x voa vial	YES	HCL	BC LABS	TPH-GRO GC/MS/BTEX+MTBE(8260)/EDB/EDC(8260B)/ ETHANOL(8260)
MW-4	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 Job Number: 385642
Site Address: 3070 Fruitvale Avenue Event Date: 12/20/13 (inclusive)
City: Oakland, CA Sampler: SH

Well ID MW-5 Date Monitored: 12/20/13
Well Diameter (2) 6 in.
Total Depth 24.43 ft.
Depth to Water 9.10 ft.

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 then 0.50 ft.

15.33 xVF .17 = 2.60 x3 case volume = Estimated Purge Volume: 7.81 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.16

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump X
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

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

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

Start Time (purge): 0945 Weather Conditions: clear
Sample Time/Date: 1030 / 12/20/13 Water Color: cloudy Odor: Y / (N)
Approx. Flow Rate: 1 gpm. Sediment Description: none
Did well de-water? no If yes, Time: Volume: gal. DTW @ Sampling: 11.17

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0948	3	7.06	512	20.9		
0951	6	6.93	504	20.7		
0953	8	6.87	489	20.6		

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)
MW-5					
	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 Job Number: 385642
Site Address: 3070 Fruitvale Avenue Event Date: 12/20/13 (inclusive)
City: Oakland, CA Sampler: JH

Well ID MW-6 Date Monitored: 12/20/13
Well Diameter (2) 6 in.
Total Depth 23.45 ft.
Depth to Water 9.03 ft.

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 then 0.50 ft.

14.42 xVF .17 = 2.45 x3 case volume = Estimated Purge Volume: 7.35 gal.

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

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

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

Start Time (purge): 1050 Weather Conditions: Clear
Sample Time/Date: 1130 / 12/20/13 Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: 1 gpm. Sediment Description: Loam
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 10.65

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (µS))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
1053	3	7.20	381	20.9		
1056	6	7.13	329	20.8		
1058	8	7.11	321	20.7		

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)
MW-6	6 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 Job Number: 385642
Site Address: 3070 Fruitvale Avenue Event Date: 12/20/13 (inclusive)
City: Oakland, CA Sampler: JH

Well ID MW-7 Date Monitored: 12/20/13
Well Diameter Ø16 in.
Total Depth 54.75 ft.
Depth to Water 9.05 ft.

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 then 0.50 ft.

45.70 xVF .17 = 7.76 x3 case volume = Estimated Purge Volume: 23.30 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 18.19

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump X
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

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

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

Start Time (purge): 1145 Weather Conditions: clear
Sample Time/Date: 1530 / 12/20/13 Water Color: cloudy Odor: Y / N
Approx. Flow Rate: 1 gpm. Sediment Description: Lt Brn
Did well de-water? Yes If yes, Time: 1203 Volume: 18 gal. DTW @ Sampling: 16.23

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1153	8	7.12	694	20.4		
1201	16	7.05	681	20.1		

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)
	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 Job Number: 385642
Site Address: 3070 Fruitvale Avenue Event Date: 12/20/13 (inclusive)
City: Oakland, CA Sampler: JH

Well ID MW-8 Date Monitored: 12/20/13
Well Diameter ②/6 in.
Total Depth 19.58 ft.
Depth to Water 9.85 ft.

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 then 0.50 ft.

9.73 xVF .17 = 1.65 x3 case volume = Estimated Purge Volume: 4.96 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.79

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	X	Disposable Bailer	X
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
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): 0700 Weather Conditions: Clear
Sample Time/Date: 0730 / 12/20/13 Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: Lt Brn
Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 10.01

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (US))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0704	1.5	6.88	575	20.9		
0708	3.0	6.82	561	20.7		
0712	5.0	6.73	548	20.7		

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)
MW-8					
	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 Job Number: 385642
Site Address: 3070 Fruitvale Avenue Event Date: 12/20/13 (inclusive)
City: Oakland, CA Sampler: JH

Well ID MW-9 Date Monitored: 12/20/13
Well Diameter 2 X 6 in.
Total Depth 19.60 ft.
Depth to Water 10.38 ft.

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 then 0.50 ft.

9.22 xVF .17 = 1.56 x3 case volume = Estimated Purge Volume: 4.70 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.22

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	X	Disposable Bailer	X
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
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): 0740 Weather Conditions: Clear
Sample Time/Date: 0820 / 12/20/13 Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: Light
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 11.29

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (S))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
0744	1.5	7.29	533	21.4		
0748	3.0	7.16	519	21.2		
0753	5.0	7.11	502	21.1		

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)
MW-9	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 Job Number: 385642
Site Address: 3070 Fruitvale Avenue Event Date: 12/20/13 (inclusive)
City: Oakland, CA Sampler: JH

Well ID USTW Date Monitored: 12/20/13
Well Diameter 2 (6) in.
Total Depth 15.25 ft.
Depth to Water 9.07 ft.

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 then 0.50 ft.

6.18 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 (µmhos/cm - µS)	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)/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: 11/10

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 1 of 1

Union Oil Site ID: 11625	Union Oil Consultant: AECOM
Site Global ID: T0600102156	Consultant Contact: James Haggins
Site Address: 3070 Fruitvale Ave Oakland CA	Consultant Phone No.: 916-361-6412
	Sampling Company: Gettler - Ryan
Union Oil PM: Tim Bishop	Sampled By (PRINT): Jim Herrera
Union Oil PM Phone No.: 925-790-6463	Sampler Signature:
Charge Code: NWRTB- 0 351611 -0- LAB	BC Laboratories, Inc.
This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.	Project Manager: Molly Meyers 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911

Turnaround Time (TAT): Standard ☒ 24 Hours ☐ 48 Hours ☐ 72 Hours ☐

Special Instructions: Run 8 oxy's on all 8260 hits. MTBE Hits

SAMPLE ID						ANALYSES REQUIRED												
Field Point Name	Matrix	Depth	Date (yymmdd)	Sample Time	# of Containers	TPH - Diesel by EPA 8015	TPH - G by GC/MS	BTEX/MTBE/8260 by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full list with 8260 SVOC (8270)	Fulleam (8260)	8 oxy's (8260)	EDB/EDC (8260)	TAG	total cHROMium		Notes / Comments
GA	W-S-A		121220		2		X	X									
MW-1	W-S-A			0930	3		X	X	X				X				
MW-2	W-S-A			1305	3		X	X	X				X				
MW-3	W-S-A			1400	9	X	X		X	X	X			X	X		
MW-4	W-S-A			1455	3		X	X	X				X				
MW-5	W-S-A			1030			X	X				X					
MW-6	W-S-A			1130			X	X				X					
MW-7	W-S-A			1530			X	X				X					
MW-8	W-S-A			0730			X	X				X					
MW-9	W-S-A			0820			X	X				X					
	W-S-A																
	W-S-A																

Relinquished By	Company	Date / Time:
[signature]	GR	12/21/13 1200

Received By	Company	Date / Time:
[signature]	GR	12-23-13 0700

Relinquished By	Company	Date / Time:
[signature]	GR	12-23-13

Received By	Company	Date / Time:
[signature]	BC Lab	12-23-13 1500

Relinquished By	Company	Date / Time:

Received By	Company	Date / Time:

ATTACHMENT B

BC LABS ANALYTICAL REPORT #1327950

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 01/07/2014

Jim Harms

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

Project:	4625
BC Work Order:	1327950
Invoice ID:	B163650

Enclosed are the results of analyses for samples received by the laboratory on 12/23/2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Table of Contents

13-27950

CHAIN OF CUSTODY FORM

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

COC 1 of 1

Union Oil Site ID: 4625	Union Oil Consultant: AECOM
Site Global ID: T0600102156	Consultant Contact: James Harms
Site Address: 3070 FRUITVALE AVE OAKLAND CA	Consultant Phone No.: 916-361-6412
	Sampling Company: Gettler - Ryan
Union Oil PM: Tim Bishop	Sampled By (PRINT): Jim Herron
Union Oil PM Phone No.: 925-790-6463	Sampler Signature:
Charge Code: NWRTB- 0 351641 -0- LAB	BC Laboratories, Inc.
This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.	**Project Manager: Molly Meyers** 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911

Turnaround Time (TAT): Standard ☒ 24 Hours ☐ 48 Hours ☐ 72 Hours ☐

Special Instructions: RUN 8 oxy's on all 8260 MTBE Hits

SAMPLE ID						ANALYSES REQUIRED												
Field Point Name	Matrix	Depth	Date (yymmdd)	Sample Time	# of Containers	TPH - Diesel by EPA 8015	TPH - G by GC/MS	BTEX/MTBE/ by EPA 8260B	Ethanol by EPA 8260B	8270 SVOC	Fullscan (8260)	8 oxy's (8260)	EDB/EDC (8260)	TOC	Total Chromium		Notes / Comments
QA	W-S-A	-1	131220		2		X	X									
MW-1	W-S-A	-2		0930	3		X	X	X				X				
MW-2	W-S-A	-3		1305	3		X	X	X				X				
MW-3	W-S-A	-4		1400	9	X	X		X	X	X			X	X		
MW-4	W-S-A	-5		1455	3		X	X	X				X				
MW-5	W-S-A	-6		1030			X	X				X					
MW-6	W-S-A	-7		1130			X	X				X					
MW-7	W-S-A	-8		1530			X	X				X					
MW-8	W-S-A	-9		0730			X	X				X					
MW-9	W-S-A	-10		0820			X	X				X					
	W-S-A																
	W-S-A																

Relinquished By	Company	Date / Time:	Relinquished By	Company	Date / Time:	Relinquished By	Company	Date / Time:
	GRm	12/21/13 1200		GR INC	12-23-13	Jerry Bogan	BCLAB	12-23-13 1815
Received By	**Company**	**Date / Time:**	**Received By**	**Company**	**Date / Time:**	**Received By**	**Company**	**Date / Time:**
GETTLER-RYAN FRIDGE		12-23-13 0700	Jerry Bogan	BCLAB	12-23-13 1500		BCLDB	12-23-13 18:15

REL. 0 12-23-13 21:20

Rec- KO 12-23-13 2120

Chain of Custody and Cooler Receipt Form for 1327950 Page 2 of 2

BC LABORATORIES INC. **COOLER RECEIPT FORM** Rev. No. 15 07/01/13 Page 1 Of 1

Submission #: 13-27950

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Federal Express ☐ UPS ☐ Hand Delivery BC Lab Field Service ☑ Other ☐ (Specify)_____	Ice Chest ☑ None ☐ Box ☐ Other ☐ (Specify)_____	YES ☐ NO ☐

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: PE Thermometer ID: 207 Date/Time: 12-23-13 2120

Temperature: (A) 1.1 °C / (C) 1.2 °C Analyst Init: JM

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS				B						
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A(2)									
40ml VOA VIAL	A(3)	A(3)	A(3)	A(3)	A(3)	A(3)	A(3)	A(3)	A(3)	A(3)
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA ~~508/608/8080~~ 1664				FG						
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				CDE						
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

CHK BY JM DISTRIBUTION MA MK JK RS SM SUB-OUT ☐

Comments:_____

Sample Numbering Completed By: JM Date/Time: 12/24/13 @ 0640

A = Actual / C = Corrected

[S:\MyDOCS\WordPerfect\LAB_DOCS\FORMS\SAMREC15]

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

Reported: 01/07/2014 16:41
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1327950-01	**COC Number:**	---	**Receive Date:**	12/23/2013 21:20
	Project Number:	4625	**Sampling Date:**	12/20/2013 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	QA-W-131220	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Trip Blank
	Delivery Work Order:			
	Global ID: T0600102156			
	Location ID (FieldPoint): QA			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1327950-02	**COC Number:**	---	**Receive Date:**	12/23/2013 21:20
	Project Number:	4625	**Sampling Date:**	12/20/2013 09:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-1-W-131220	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600102156			
	Location ID (FieldPoint): MW-1			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1327950-03	**COC Number:**	---	**Receive Date:**	12/23/2013 21:20
	Project Number:	4625	**Sampling Date:**	12/20/2013 13:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-2-W-131220	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600102156			
	Location ID (FieldPoint): MW-2			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			

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Reported: 01/07/2014 16:41
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1327950-04	**COC Number:**	---	**Receive Date:**	12/23/2013 21:20
	Project Number:	4625	**Sampling Date:**	12/20/2013 14:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-3-W-131220	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600102156	
			Location ID (FieldPoint): MW-3	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1327950-05	**COC Number:**	---	**Receive Date:**	12/23/2013 21:20
	Project Number:	4625	**Sampling Date:**	12/20/2013 14:55
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-4-W-131220	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600102156	
			Location ID (FieldPoint): MW-4	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1327950-06	**COC Number:**	---	**Receive Date:**	12/23/2013 21:20
	Project Number:	4625	**Sampling Date:**	12/20/2013 10:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-5-W-131220	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600102156	
			Location ID (FieldPoint): MW-5	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Sacramento, CA 95827

Reported: 01/07/2014 16:41
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1327950-07	**COC Number:**	---	**Receive Date:**	12/23/2013 21:20
	Project Number:	4625	**Sampling Date:**	12/20/2013 11:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-6-W-131220	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600102156	
			Location ID (FieldPoint): MW-6	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1327950-08	**COC Number:**	---	**Receive Date:**	12/23/2013 21:20
	Project Number:	4625	**Sampling Date:**	12/20/2013 15:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-7-W-131220	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600102156	
			Location ID (FieldPoint): MW-7	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1327950-09	**COC Number:**	---	**Receive Date:**	12/23/2013 21:20
	Project Number:	4625	**Sampling Date:**	12/20/2013 07:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-8-W-131220	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600102156	
			Location ID (FieldPoint): MW-8	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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10461 Old Placerville Rd, Suite 170
Sacramento, CA 95827

Reported: 01/07/2014 16:41
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information

1327950-10

COC Number: ---
Project Number: 4625
Sampling Location: ---
Sampling Point: MW-9-W-131220
Sampled By: GRD

Receive Date: 12/23/2013 21:20
Sampling Date: 12/20/2013 08:20
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:

AECOM
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Reported: 01/07/2014 16:41
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327950-01 | **Client Sample Name:** 4625, QA-W-131220, 12/20/2013 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
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)	95.0	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	97.4	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	98.2	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/28/13	12/28/13 16:56	ML	MS-V14	1	BWL2020

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Reported: 01/07/2014 16:41
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327950-02 | **Client Sample Name:** 4625, MW-1-W-131220, 12/20/2013 9:30:00AM

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	**1.4**	**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)	92.6	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	96.7	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.2	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/28/13	12/28/13 16:56	ML	MS-V14	1	BWL2020

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Reported: 01/07/2014 16:41
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327950-03 | **Client Sample Name:** 4625, MW-2-W-131220, 12/20/2013 1:05:00PM

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	**0.78**	**ug/L**	**0.50**	**EPA-8260B**	ND		1
Toluene	**0.65**	**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)	95.5	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	96.9	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.1	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/28/13	12/28/13 17:15	ML	MS-V14	1	BWL2020

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Sacramento, CA 95827

Reported: 01/07/2014 16:41
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327950-04 | **Client Sample Name:** 4625, MW-3-W-131220, 12/20/2013 2:00:00PM

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

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327950-04 | **Client Sample Name:** 4625, MW-3-W-131220, 12/20/2013 2:00:00PM

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	**1.5**	**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: 1327950-04 | **Client Sample Name:** 4625, MW-3-W-131220, 12/20/2013 2:00:00PM

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)	94.4	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	97.3	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.1	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/26/13	12/27/13 07:25	ML	MS-V14	1	BWL1935

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

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

BCL Sample ID: 1327950-04 | **Client Sample Name:** 4625, MW-3-W-131220, 12/20/2013 2:00:00PM

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: 1327950-04 | **Client Sample Name:** 4625, MW-3-W-131220, 12/20/2013 2:00:00PM

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)	38.6	%	30 - 120 (LCL - UCL)	EPA-8270C			1

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

BCL Sample ID: 1327950-04 | **Client Sample Name:** 4625, MW-3-W-131220, 12/20/2013 2:00:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Phenol-d5 (Surrogate)	26.5	%	12 - 110 (LCL - UCL)	EPA-8270C			1
Nitrobenzene-d5 (Surrogate)	76.6	%	60 - 130 (LCL - UCL)	EPA-8270C			1
2-Fluorobiphenyl (Surrogate)	78.2	%	55 - 125 (LCL - UCL)	EPA-8270C			1
2,4,6-Tribromophenol (Surrogate)	77.9	%	40 - 150 (LCL - UCL)	EPA-8270C			1
p-Terphenyl-d14 (Surrogate)	78.3	%	40 - 150 (LCL - UCL)	EPA-8270C			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8270C	12/27/13	01/06/14 15:34	SKC	MS-B2	0.980	BWL2062

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Total Petroleum Hydrocarbons

BCL Sample ID: 1327950-04 | **Client Sample Name:** 4625, MW-3-W-131220, 12/20/2013 2:00:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50	EPA-8015B/TPHd	ND		1
Tetracosane (Surrogate)	140	%	30 - 150 (LCL - UCL)	EPA-8015B/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B/TPHd	12/23/13	12/31/13 04:34	MWB	GC-13	0.990	BWL1812

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EPA Method 1664

BCL Sample ID: 1327950-04 | **Client Sample Name:** 4625, MW-3-W-131220, 12/20/2013 2:00:00PM

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	12/30/13	12/30/13 09:00	JAK	MAN-SV	1	BXA0049

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Metals Analysis

BCL Sample ID: 1327950-04 | **Client Sample Name:** 4625, MW-3-W-131220, 12/20/2013 2:00:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Chromium	**41**	**ug/L**	**10**	**EPA-6010B**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	12/26/13	12/27/13 12:10	ARD	PE-OP1	1	BWL1892

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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327950-05 | **Client Sample Name:** 4625, MW-4-W-131220, 12/20/2013 2:55:00PM

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	**1.4**	**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)	94.1	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	97.1	%	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	12/28/13	12/28/13 16:56	ML	MS-V14	1	BWL2020

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Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327950-06 | **Client Sample Name:** 4625, MW-5-W-131220, 12/20/2013 10:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**7.4**	**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	**24**	**ug/L**	**0.50**	**EPA-8260B**	ND		1
Methyl t-butyl ether	**14**	**ug/L**	**0.50**	**EPA-8260B**	ND		1
Toluene	**1.8**	**ug/L**	**0.50**	**EPA-8260B**	ND		1
Total Xylenes	**5.1**	**ug/L**	**1.0**	**EPA-8260B**	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260B	ND		1
t-Butyl alcohol	**230**	**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	**300**	**ug/L**	**50**	**Luft-GC/MS**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	93.3	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	97.8	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	98.4	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/28/13	12/28/13 17:38	ML	MS-V14	1	BWL2020

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Project: 4625
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Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327950-07 | **Client Sample Name:** 4625, MW-6-W-131220, 12/20/2013 11:30:00AM

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	**10**	**ug/L**	**0.50**	**EPA-8260B**	ND		1
Toluene	**1.4**	**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)	91.4	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	96.8	%	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	12/28/13	12/30/13 11:51	ML	MS-V14	1	BWL2020

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Reported: 01/07/2014 16:41
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327950-08 | **Client Sample Name:** 4625, MW-7-W-131220, 12/20/2013 3:30:00PM

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	**1.4**	**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)	92.5	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	96.4	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.5	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/28/13	12/28/13 16:56	ML	MS-V14	1	BWL2020

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Reported: 01/07/2014 16:41
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Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327950-09 | **Client Sample Name:** 4625, MW-8-W-131220, 12/20/2013 7:30:00AM

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	**1.4**	**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)	92.2	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	97.0	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	98.6	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/28/13	12/28/13 16:56	ML	MS-V14	1	BWL2020

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Reported: 01/07/2014 16:41
Project: 4625
Project Number: 351641
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1327950-10 | **Client Sample Name:** 4625, MW-9-W-131220, 12/20/2013 8:20:00AM

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	**1.3**	**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)	95.8	%	75 - 125 (LCL - UCL)	EPA-8260B			1
Toluene-d8 (Surrogate)	97.0	%	80 - 120 (LCL - UCL)	EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.2	%	80 - 120 (LCL - UCL)	EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	12/28/13	12/28/13 16:56	ML	MS-V14	1	BWL2020

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Project Number: 351641
Project Manager: Jim Harms

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: BWL1935						
Benzene	BWL1935-BLK1	ND	ug/L	0.50		
Bromobenzene	BWL1935-BLK1	ND	ug/L	0.50		
Bromochloromethane	BWL1935-BLK1	ND	ug/L	0.50		
Bromodichloromethane	BWL1935-BLK1	ND	ug/L	0.50		
Bromoform	BWL1935-BLK1	ND	ug/L	0.50		
Bromomethane	BWL1935-BLK1	ND	ug/L	1.0		
n-Butylbenzene	BWL1935-BLK1	ND	ug/L	0.50		
sec-Butylbenzene	BWL1935-BLK1	ND	ug/L	0.50		
tert-Butylbenzene	BWL1935-BLK1	ND	ug/L	0.50		
Carbon tetrachloride	BWL1935-BLK1	ND	ug/L	0.50		
Chlorobenzene	BWL1935-BLK1	ND	ug/L	0.50		
Chloroethane	BWL1935-BLK1	ND	ug/L	0.50		
Chloroform	BWL1935-BLK1	ND	ug/L	0.50		
Chloromethane	BWL1935-BLK1	ND	ug/L	0.50		
2-Chlorotoluene	BWL1935-BLK1	ND	ug/L	0.50		
4-Chlorotoluene	BWL1935-BLK1	ND	ug/L	0.50		
Dibromochloromethane	BWL1935-BLK1	ND	ug/L	0.50		
1,2-Dibromo-3-chloropropane	BWL1935-BLK1	ND	ug/L	1.0		
1,2-Dibromoethane	BWL1935-BLK1	ND	ug/L	0.50		
Dibromomethane	BWL1935-BLK1	ND	ug/L	0.50		
1,2-Dichlorobenzene	BWL1935-BLK1	ND	ug/L	0.50		
1,3-Dichlorobenzene	BWL1935-BLK1	ND	ug/L	0.50		
1,4-Dichlorobenzene	BWL1935-BLK1	ND	ug/L	0.50		
Dichlorodifluoromethane	BWL1935-BLK1	ND	ug/L	0.50		
1,1-Dichloroethane	BWL1935-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BWL1935-BLK1	ND	ug/L	0.50		
1,1-Dichloroethene	BWL1935-BLK1	ND	ug/L	0.50		
cis-1,2-Dichloroethene	BWL1935-BLK1	ND	ug/L	0.50		
trans-1,2-Dichloroethene	BWL1935-BLK1	ND	ug/L	0.50		
Total 1,2-Dichloroethene	BWL1935-BLK1	ND	ug/L	1.0		
1,2-Dichloropropane	BWL1935-BLK1	ND	ug/L	0.50		
1,3-Dichloropropane	BWL1935-BLK1	ND	ug/L	0.50		
2,2-Dichloropropane	BWL1935-BLK1	ND	ug/L	0.50		
1,1-Dichloropropene	BWL1935-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: BWL1935						
cis-1,3-Dichloropropene	BWL1935-BLK1	ND	ug/L	0.50		
trans-1,3-Dichloropropene	BWL1935-BLK1	ND	ug/L	0.50		
Total 1,3-Dichloropropene	BWL1935-BLK1	ND	ug/L	1.0		
Ethylbenzene	BWL1935-BLK1	ND	ug/L	0.50		
Hexachlorobutadiene	BWL1935-BLK1	ND	ug/L	0.50		
Isopropylbenzene	BWL1935-BLK1	ND	ug/L	0.50		
p-Isopropyltoluene	BWL1935-BLK1	ND	ug/L	0.50		
Methylene chloride	BWL1935-BLK1	ND	ug/L	1.0		
Methyl t-butyl ether	BWL1935-BLK1	ND	ug/L	0.50		
Naphthalene	BWL1935-BLK1	ND	ug/L	0.50		
n-Propylbenzene	BWL1935-BLK1	ND	ug/L	0.50		
Styrene	BWL1935-BLK1	ND	ug/L	0.50		
1,1,1,2-Tetrachloroethane	BWL1935-BLK1	ND	ug/L	0.50		
1,1,2,2-Tetrachloroethane	BWL1935-BLK1	ND	ug/L	0.50		
Tetrachloroethene	BWL1935-BLK1	ND	ug/L	0.50		
Toluene	BWL1935-BLK1	ND	ug/L	0.50		
1,2,3-Trichlorobenzene	BWL1935-BLK1	ND	ug/L	0.50		
1,2,4-Trichlorobenzene	BWL1935-BLK1	ND	ug/L	0.50		
1,1,1-Trichloroethane	BWL1935-BLK1	ND	ug/L	0.50		
1,1,2-Trichloroethane	BWL1935-BLK1	ND	ug/L	0.50		
Trichloroethene	BWL1935-BLK1	ND	ug/L	0.50		
Trichlorofluoromethane	BWL1935-BLK1	ND	ug/L	0.50		
1,2,3-Trichloropropane	BWL1935-BLK1	ND	ug/L	1.0		
1,1,2-Trichloro-1,2,2-trifluoroethane	BWL1935-BLK1	ND	ug/L	0.50		
1,2,4-Trimethylbenzene	BWL1935-BLK1	ND	ug/L	0.50		
1,3,5-Trimethylbenzene	BWL1935-BLK1	ND	ug/L	0.50		
Vinyl chloride	BWL1935-BLK1	ND	ug/L	0.50		
Total Xylenes	BWL1935-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BWL1935-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BWL1935-BLK1	ND	ug/L	10		
Diisopropyl ether	BWL1935-BLK1	ND	ug/L	0.50		
Ethanol	BWL1935-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BWL1935-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BWL1935-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: BWL1935						
1,2-Dichloroethane-d4 (Surrogate)	**BWL1935-BLK1**	**92.9**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BWL1935-BLK1**	**97.4**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BWL1935-BLK1**	**95.5**	%	**80 - 120 (LCL - UCL)**		
QC Batch ID: BWL2020						
Benzene	BWL2020-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BWL2020-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BWL2020-BLK1	ND	ug/L	0.50		
Ethylbenzene	BWL2020-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BWL2020-BLK1	ND	ug/L	0.50		
Toluene	BWL2020-BLK1	ND	ug/L	0.50		
Total Xylenes	BWL2020-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BWL2020-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BWL2020-BLK1	ND	ug/L	10		
Diisopropyl ether	BWL2020-BLK1	ND	ug/L	0.50		
Ethanol	BWL2020-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BWL2020-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BWL2020-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	**BWL2020-BLK1**	**89.1**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BWL2020-BLK1**	**96.6**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BWL2020-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	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BWL1935										
Benzene	BWL1935-BS1	LCS	24.095	25.000	ug/L	96.4		70 - 130		
Bromodichloromethane	BWL1935-BS1	LCS	22.671	25.000	ug/L	90.7		70 - 130		
Chlorobenzene	BWL1935-BS1	LCS	23.567	25.000	ug/L	94.3		70 - 130		
Chloroethane	BWL1935-BS1	LCS	23.266	25.000	ug/L	93.1		70 - 130		
1,4-Dichlorobenzene	BWL1935-BS1	LCS	24.249	25.000	ug/L	97.0		70 - 130		
1,1-Dichloroethane	BWL1935-BS1	LCS	23.774	25.000	ug/L	95.1		70 - 130		
1,1-Dichloroethene	BWL1935-BS1	LCS	24.564	25.000	ug/L	98.3		70 - 130		
Toluene	BWL1935-BS1	LCS	24.277	25.000	ug/L	97.1		70 - 130		
Trichloroethene	BWL1935-BS1	LCS	26.395	25.000	ug/L	106		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BWL1935-BS1	LCS	9.1800	10.000	ug/L	91.8		75 - 125		
Toluene-d8 (Surrogate)	BWL1935-BS1	LCS	9.7900	10.000	ug/L	97.9		80 - 120		
4-Bromofluorobenzene (Surrogate)	BWL1935-BS1	LCS	9.7700	10.000	ug/L	97.7		80 - 120		
QC Batch ID: BWL2020										
Benzene	BWL2020-BS1	LCS	24.438	25.000	ug/L	97.8		70 - 130		
Toluene	BWL2020-BS1	LCS	24.575	25.000	ug/L	98.3		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BWL2020-BS1	LCS	9.2700	10.000	ug/L	92.7		75 - 125		
Toluene-d8 (Surrogate)	BWL2020-BS1	LCS	9.7800	10.000	ug/L	97.8		80 - 120		
4-Bromofluorobenzene (Surrogate)	BWL2020-BS1	LCS	9.8300	10.000	ug/L	98.3		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	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BWL1935	Used client sample: N										
Benzene	MS	1327870-11	ND	25.414	25.000	ug/L		102		70 - 130	
	MSD	1327870-11	ND	24.673	25.000	ug/L	3.0	98.7	20	70 - 130	
Bromodichloromethane	MS	1327870-11	ND	24.464	25.000	ug/L		97.9		70 - 130	
	MSD	1327870-11	ND	23.804	25.000	ug/L	2.7	95.2	20	70 - 130	
Chlorobenzene	MS	1327870-11	ND	22.817	25.000	ug/L		91.3		70 - 130	
	MSD	1327870-11	ND	21.945	25.000	ug/L	3.9	87.8	20	70 - 130	
Chloroethane	MS	1327870-11	ND	23.995	25.000	ug/L		96.0		70 - 130	
	MSD	1327870-11	ND	23.344	25.000	ug/L	2.8	93.4	20	70 - 130	
1,4-Dichlorobenzene	MS	1327870-11	ND	23.852	25.000	ug/L		95.4		70 - 130	
	MSD	1327870-11	ND	22.819	25.000	ug/L	4.4	91.3	20	70 - 130	
1,1-Dichloroethane	MS	1327870-11	0.45600	25.291	25.000	ug/L		99.3		70 - 130	
	MSD	1327870-11	0.45600	24.749	25.000	ug/L	2.2	97.2	20	70 - 130	
1,1-Dichloroethene	MS	1327870-11	ND	24.797	25.000	ug/L		99.2		70 - 130	
	MSD	1327870-11	ND	24.093	25.000	ug/L	2.9	96.4	20	70 - 130	
Toluene	MS	1327870-11	ND	24.213	25.000	ug/L		96.9		70 - 130	
	MSD	1327870-11	ND	23.553	25.000	ug/L	2.8	94.2	20	70 - 130	
Trichloroethene	MS	1327870-11	ND	24.809	25.000	ug/L		99.2		70 - 130	
	MSD	1327870-11	ND	24.210	25.000	ug/L	2.4	96.8	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1327870-11	ND	11.160	10.000	ug/L		112		75 - 125	
	MSD	1327870-11	ND	11.060	10.000	ug/L	0.9	111		75 - 125	
Toluene-d8 (Surrogate)	MS	1327870-11	ND	9.8500	10.000	ug/L		98.5		80 - 120	
	MSD	1327870-11	ND	9.9400	10.000	ug/L	0.9	99.4		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1327870-11	ND	10.190	10.000	ug/L		102		80 - 120	
	MSD	1327870-11	ND	10.150	10.000	ug/L	0.4	102		80 - 120	
QC Batch ID: BWL2020	Used client sample: Y - Description: MW-1-W-131220, 12/20/2013 09:30										
Benzene	MS	1327950-02	ND	25.116	25.000	ug/L		100		70 - 130	
	MSD	1327950-02	ND	24.968	25.000	ug/L	0.6	99.9	20	70 - 130	
Toluene	MS	1327950-02	1.4130	26.070	25.000	ug/L		98.6		70 - 130	
	MSD	1327950-02	1.4130	26.180	25.000	ug/L	0.4	99.1	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1327950-02	ND	9.5200	10.000	ug/L		95.2		75 - 125	
	MSD	1327950-02	ND	9.1700	10.000	ug/L	3.7	91.7		75 - 125	
Toluene-d8 (Surrogate)	MS	1327950-02	ND	9.6800	10.000	ug/L		96.8		80 - 120	
	MSD	1327950-02	ND	9.6200	10.000	ug/L	0.6	96.2		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1327950-02	ND	9.6700	10.000	ug/L		96.7		80 - 120	
	MSD	1327950-02	ND	9.8000	10.000	ug/L	1.3	98.0		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: BWL2062						
Acenaphthene	BWL2062-BLK1	ND	ug/L	2.0		
Acenaphthylene	BWL2062-BLK1	ND	ug/L	2.0		
Anthracene	BWL2062-BLK1	ND	ug/L	2.0		
Benzo[a]anthracene	BWL2062-BLK1	ND	ug/L	2.0		
Benzo[b]fluoranthene	BWL2062-BLK1	ND	ug/L	2.0		
Benzo[k]fluoranthene	BWL2062-BLK1	ND	ug/L	2.0		
Benzo[a]pyrene	BWL2062-BLK1	ND	ug/L	2.0		
Benzo[g,h,i]perylene	BWL2062-BLK1	ND	ug/L	2.0		
Benzoic acid	BWL2062-BLK1	ND	ug/L	10		
Benzyl alcohol	BWL2062-BLK1	ND	ug/L	2.0		
Benzyl butyl phthalate	BWL2062-BLK1	ND	ug/L	2.0		
bis(2-Chloroethoxy)methane	BWL2062-BLK1	ND	ug/L	2.0		
bis(2-Chloroethyl) ether	BWL2062-BLK1	ND	ug/L	2.0		
bis(2-Chloroisopropyl)ether	BWL2062-BLK1	ND	ug/L	2.0		
bis(2-Ethylhexyl)phthalate	BWL2062-BLK1	ND	ug/L	4.0		
4-Bromophenyl phenyl ether	BWL2062-BLK1	ND	ug/L	2.0		
4-Chloroaniline	BWL2062-BLK1	ND	ug/L	2.0		
2-Chloronaphthalene	BWL2062-BLK1	ND	ug/L	2.0		
4-Chlorophenyl phenyl ether	BWL2062-BLK1	ND	ug/L	2.0		
Chrysene	BWL2062-BLK1	ND	ug/L	2.0		
Dibenzo[a,h]anthracene	BWL2062-BLK1	ND	ug/L	3.0		
Dibenzofuran	BWL2062-BLK1	ND	ug/L	2.0		
1,2-Dichlorobenzene	BWL2062-BLK1	ND	ug/L	2.0		
1,3-Dichlorobenzene	BWL2062-BLK1	ND	ug/L	2.0		
1,4-Dichlorobenzene	BWL2062-BLK1	ND	ug/L	2.0		
3,3-Dichlorobenzidine	BWL2062-BLK1	ND	ug/L	10		
Diethyl phthalate	BWL2062-BLK1	ND	ug/L	2.0		
Dimethyl phthalate	BWL2062-BLK1	ND	ug/L	2.0		
Di-n-butyl phthalate	BWL2062-BLK1	ND	ug/L	2.0		
2,4-Dinitrotoluene	BWL2062-BLK1	ND	ug/L	2.0		
2,6-Dinitrotoluene	BWL2062-BLK1	ND	ug/L	2.0		
Di-n-octyl phthalate	BWL2062-BLK1	ND	ug/L	2.0		
Fluoranthene	BWL2062-BLK1	ND	ug/L	2.0		
Fluorene	BWL2062-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: BWL2062						
Hexachlorobenzene	BWL2062-BLK1	ND	ug/L	2.0		
Hexachlorobutadiene	BWL2062-BLK1	ND	ug/L	2.0		
Hexachlorocyclopentadiene	BWL2062-BLK1	ND	ug/L	2.0		
Hexachloroethane	BWL2062-BLK1	ND	ug/L	2.0		
Indeno[1,2,3-cd]pyrene	BWL2062-BLK1	ND	ug/L	2.0		
Isophorone	BWL2062-BLK1	ND	ug/L	2.0		
2-Methylnaphthalene	BWL2062-BLK1	ND	ug/L	2.0		
Naphthalene	BWL2062-BLK1	ND	ug/L	2.0		
2-Nitroaniline	BWL2062-BLK1	ND	ug/L	2.0		
3-Nitroaniline	BWL2062-BLK1	ND	ug/L	2.0		
4-Nitroaniline	BWL2062-BLK1	ND	ug/L	5.0		
Nitrobenzene	BWL2062-BLK1	ND	ug/L	2.0		
N-Nitrosodi-N-propylamine	BWL2062-BLK1	ND	ug/L	2.0		
N-Nitrosodiphenylamine	BWL2062-BLK1	ND	ug/L	2.0		
Phenanthrene	BWL2062-BLK1	ND	ug/L	2.0		
Pyrene	BWL2062-BLK1	ND	ug/L	2.0		
1,2,4-Trichlorobenzene	BWL2062-BLK1	ND	ug/L	2.0		
4-Chloro-3-methylphenol	BWL2062-BLK1	ND	ug/L	5.0		
2-Chlorophenol	BWL2062-BLK1	ND	ug/L	2.0		
2,4-Dichlorophenol	BWL2062-BLK1	ND	ug/L	2.0		
2,4-Dimethylphenol	BWL2062-BLK1	ND	ug/L	2.0		
4,6-Dinitro-2-methylphenol	BWL2062-BLK1	ND	ug/L	10		
2,4-Dinitrophenol	BWL2062-BLK1	ND	ug/L	10		
2-Methylphenol	BWL2062-BLK1	ND	ug/L	2.0		
3- & 4-Methylphenol	BWL2062-BLK1	ND	ug/L	2.0		
2-Nitrophenol	BWL2062-BLK1	ND	ug/L	2.0		
4-Nitrophenol	BWL2062-BLK1	ND	ug/L	2.0		
Pentachlorophenol	BWL2062-BLK1	ND	ug/L	10		
Phenol	BWL2062-BLK1	ND	ug/L	2.0		
2,4,5-Trichlorophenol	BWL2062-BLK1	ND	ug/L	5.0		
2,4,6-Trichlorophenol	BWL2062-BLK1	ND	ug/L	5.0		
2-Fluorophenol (Surrogate)	**BWL2062-BLK1**	**46.7**	%	**30 - 120 (LCL - UCL)**		
Phenol-d5 (Surrogate)	**BWL2062-BLK1**	**27.9**	%	**12 - 110 (LCL - UCL)**		
Nitrobenzene-d5 (Surrogate)	**BWL2062-BLK1**	**60.7**	%	**60 - 130 (LCL - UCL)**		

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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: BWL2062						
2-Fluorobiphenyl (Surrogate)	BWL2062-BLK1	62.6	%	55 - 125 (LCL - UCL)		
2,4,6-Tribromophenol (Surrogate)	BWL2062-BLK1	54.6	%	40 - 150 (LCL - UCL)		
p-Terphenyl-d14 (Surrogate)	BWL2062-BLK1	62.6	%	40 - 150 (LCL - UCL)		

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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	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BWL2062										
Acenaphthene	BWL2062-BS1	LCS	30.670	50.000	ug/L	61.3		50 - 120		
1,4-Dichlorobenzene	BWL2062-BS1	LCS	30.540	50.000	ug/L	61.1		50 - 120		
2,4-Dinitrotoluene	BWL2062-BS1	LCS	30.690	50.000	ug/L	61.4		50 - 120		
Hexachlorobenzene	BWL2062-BS1	LCS	27.210	50.000	ug/L	54.4		60 - 120		L01
Hexachlorobutadiene	BWL2062-BS1	LCS	23.400	50.000	ug/L	46.8		40 - 110		
Hexachloroethane	BWL2062-BS1	LCS	27.080	50.000	ug/L	54.2		40 - 120		
Nitrobenzene	BWL2062-BS1	LCS	28.970	50.000	ug/L	57.9		50 - 120		
N-Nitrosodi-N-propylamine	BWL2062-BS1	LCS	28.830	50.000	ug/L	57.7		50 - 120		
Pyrene	BWL2062-BS1	LCS	39.150	50.000	ug/L	78.3		40 - 140		
1,2,4-Trichlorobenzene	BWL2062-BS1	LCS	30.190	50.000	ug/L	60.4		45 - 120		
4-Chloro-3-methylphenol	BWL2062-BS1	LCS	29.070	50.000	ug/L	58.1		50 - 120		
2-Chlorophenol	BWL2062-BS1	LCS	32.170	50.000	ug/L	64.3		50 - 120		
2-Methylphenol	BWL2062-BS1	LCS	25.930	50.000	ug/L	51.9		40 - 110		
3- & 4-Methylphenol	BWL2062-BS1	LCS	42.610	100.00	ug/L	42.6		40 - 110		
4-Nitrophenol	BWL2062-BS1	LCS	14.710	50.000	ug/L	29.4		10 - 110		
Pentachlorophenol	BWL2062-BS1	LCS	18.640	50.000	ug/L	37.3		30 - 120		
Phenol	BWL2062-BS1	LCS	11.970	50.000	ug/L	23.9		20 - 110		
2,4,6-Trichlorophenol	BWL2062-BS1	LCS	38.640	50.000	ug/L	77.3		54 - 120		
2-Fluorophenol (Surrogate)	BWL2062-BS1	LCS	39.770	80.000	ug/L	49.7		30 - 120		
Phenol-d5 (Surrogate)	BWL2062-BS1	LCS	23.380	80.000	ug/L	29.2		12 - 110		
Nitrobenzene-d5 (Surrogate)	BWL2062-BS1	LCS	47.160	80.000	ug/L	59.0		60 - 130		S09
2-Fluorobiphenyl (Surrogate)	BWL2062-BS1	LCS	50.890	80.000	ug/L	63.6		55 - 125		
2,4,6-Tribromophenol (Surrogate)	BWL2062-BS1	LCS	49.770	80.000	ug/L	62.2		40 - 150		
p-Terphenyl-d14 (Surrogate)	BWL2062-BS1	LCS	26.200	40.000	ug/L	65.5		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	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BWL2062	Used client sample: N										
Acenaphthene	MS	1325794-47	ND	44.746	50.000	ug/L		89.5		50 - 120	
	MSD	1325794-47	ND	42.989	50.000	ug/L	4.0	86.0	30	50 - 120	
1,4-Dichlorobenzene	MS	1325794-47	ND	42.461	50.000	ug/L		84.9		47 - 120	
	MSD	1325794-47	ND	40.531	50.000	ug/L	4.7	81.1	30	47 - 120	
2,4-Dinitrotoluene	MS	1325794-47	ND	43.718	50.000	ug/L		87.4		50 - 130	
	MSD	1325794-47	ND	39.418	50.000	ug/L	10.3	78.8	30	50 - 130	
Hexachlorobenzene	MS	1325794-47	ND	38.304	50.000	ug/L		76.6		62 - 120	
	MSD	1325794-47	ND	37.930	50.000	ug/L	1.0	75.9	30	62 - 120	
Hexachlorobutadiene	MS	1325794-47	ND	33.091	50.000	ug/L		66.2		40 - 110	
	MSD	1325794-47	ND	31.440	50.000	ug/L	5.1	62.9	30	40 - 110	
Hexachloroethane	MS	1325794-47	ND	37.258	50.000	ug/L		74.5		40 - 120	
	MSD	1325794-47	ND	34.541	50.000	ug/L	7.6	69.1	30	40 - 120	
Nitrobenzene	MS	1325794-47	ND	41.990	50.000	ug/L		84.0		50 - 120	
	MSD	1325794-47	ND	37.709	50.000	ug/L	10.7	75.4	30	50 - 120	
N-Nitrosodi-N-propylamine	MS	1325794-47	ND	39.907	50.000	ug/L		79.8		50 - 120	
	MSD	1325794-47	ND	37.373	50.000	ug/L	6.6	74.7	30	50 - 120	
Pyrene	MS	1325794-47	ND	53.213	50.000	ug/L		106		40 - 140	
	MSD	1325794-47	ND	51.197	50.000	ug/L	3.9	102	30	40 - 140	
1,2,4-Trichlorobenzene	MS	1325794-47	ND	41.962	50.000	ug/L		83.9		43 - 120	
	MSD	1325794-47	ND	39.216	50.000	ug/L	6.8	78.4	30	43 - 120	
4-Chloro-3-methylphenol	MS	1325794-47	ND	41.885	50.000	ug/L		83.8		50 - 120	
	MSD	1325794-47	ND	39.715	50.000	ug/L	5.3	79.4	30	50 - 120	
2-Chlorophenol	MS	1325794-47	ND	43.651	50.000	ug/L		87.3		50 - 120	
	MSD	1325794-47	ND	41.472	50.000	ug/L	5.1	82.9	30	50 - 120	
2-Methylphenol	MS	1325794-47	ND	34.790	50.000	ug/L		69.6		40 - 110	
	MSD	1325794-47	ND	33.302	50.000	ug/L	4.4	66.6	30	40 - 110	
3- & 4-Methylphenol	MS	1325794-47	ND	56.726	100.00	ug/L		56.7		40 - 110	
	MSD	1325794-47	ND	54.509	100.00	ug/L	4.0	54.5	30	40 - 110	
4-Nitrophenol	MS	1325794-47	ND	21.014	50.000	ug/L		42.0		10 - 110	
	MSD	1325794-47	ND	17.981	50.000	ug/L	15.6	36.0	30	10 - 110	
Pentachlorophenol	MS	1325794-47	ND	29.894	50.000	ug/L		59.8		30 - 120	
	MSD	1325794-47	ND	24.259	50.000	ug/L	20.8	48.5	30	30 - 120	
Phenol	MS	1325794-47	ND	16.090	50.000	ug/L		32.2		20 - 110	
	MSD	1325794-47	ND	15.533	50.000	ug/L	3.5	31.1	30	20 - 110	
2,4,6-Trichlorophenol	MS	1325794-47	ND	53.837	50.000	ug/L		108		50 - 120	
	MSD	1325794-47	ND	49.910	50.000	ug/L	7.6	99.8	30	50 - 120	

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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	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BWL2062	Used client sample: N										
2-Fluorophenol (Surrogate)	MS	1325794-47	ND	59.117	80.000	ug/L		73.9		30 - 120	
	MSD	1325794-47	ND	54.672	80.000	ug/L	7.8	68.3		30 - 120	
Phenol-d5 (Surrogate)	MS	1325794-47	ND	31.910	80.000	ug/L		39.9		12 - 110	
	MSD	1325794-47	ND	30.605	80.000	ug/L	4.2	38.3		12 - 110	
Nitrobenzene-d5 (Surrogate)	MS	1325794-47	ND	65.098	80.000	ug/L		81.4		60 - 130	
	MSD	1325794-47	ND	60.086	80.000	ug/L	8.0	75.1		60 - 130	
2-Fluorobiphenyl (Surrogate)	MS	1325794-47	ND	70.464	80.000	ug/L		88.1		55 - 125	
	MSD	1325794-47	ND	67.670	80.000	ug/L	4.0	84.6		55 - 125	
2,4,6-Tribromophenol (Surrogate)	MS	1325794-47	ND	72.240	80.000	ug/L		90.3		40 - 150	
	MSD	1325794-47	ND	65.990	80.000	ug/L	9.0	82.5		40 - 150	
p-Terphenyl-d14 (Surrogate)	MS	1325794-47	ND	36.422	40.000	ug/L		91.1		40 - 150	
	MSD	1325794-47	ND	35.078	40.000	ug/L	3.8	87.7		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: BWL1812						
Diesel Range Organics (C12 - C24)	BWL1812-BLK1	ND	ug/L	50		
Tetracosane (Surrogate)	**BWL1812-BLK1**	**148**	%	**30 - 150 (LCL - UCL)**		**S09**

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Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BWL1812										
Diesel Range Organics (C12 - C24)	BWL1812-BS1	LCS	413.24	500.00	ug/L	82.6		50 - 140		
Tetracosane (Surrogate)	BWL1812-BS1	LCS	26.018	20.000	ug/L	130		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	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BWL1812	Used client sample: N										
Diesel Range Organics (C12 - C24)	MS	1325870-36	ND	390.60	500.00	ug/L		78.1		50 - 140	
	MSD	1325870-36	ND	375.51	500.00	ug/L	3.9	75.1	30	50 - 140	
Tetracosane (Surrogate)	MS	1325870-36	ND	23.577	20.000	ug/L		118		30 - 150	
	MSD	1325870-36	ND	23.005	20.000	ug/L	2.5	115		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: BXA0049						
Oil and Grease	BXA0049-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	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BXA0049										
Oil and Grease	BXA0049-BS1	LCS	35.550	39.100	mg/L	90.9		78 - 114		

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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	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BXA0049	Used client sample: N										
Oil and Grease	DUP	1325870-54	ND	ND		mg/L			18		
	MS	1325870-54	ND	35.350	39.100	mg/L		90.4		78 - 114	
	MSD	1325870-54	ND	36.000	39.100	mg/L	1.8	92.1	18	78 - 114	

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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: BWL1892						
Total Chromium	BWL1892-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	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BWL1892										
Total Chromium	BWL1892-BS1	LCS	204.37	200.00	ug/L	102		85 - 115		

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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	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BWL1892	Used client sample: N										
Total Chromium	DUP	1327842-04	3.1451	ND		ug/L			20		
	MS	1327842-04	3.1451	198.69	200.00	ug/L		97.8		75 - 125	
	MSD	1327842-04	3.1451	203.16	200.00	ug/L	2.2	100	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.
S09	The surrogate recovery on the sample for this compound was not within the control limits.