Nicole M. Arceneaux
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July 28, 2015

RECEIVED
By Alameda County Environmental Health 2:59 pm, Jul 30, 2015

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

Re: **Unocal No. 5781 (351640)**
3535 Pierson Street, Oakland, California
Fuel Leak Case No. RO0000253
GeoTracker Global ID #T0600101467

I have reviewed the attached report dated July 28, 2015.

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

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

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

Sincerely,

Nicole Arceneaux
Project Manager

Attachment: Second Quarter 2015 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

July 28, 2015

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

Subject: **Second Quarter 2015 Groundwater Monitoring Report**
Unocal No. 5781 (351640)
3535 Pierson Street, Oakland, California
Fuel Leak Case No. RO0000253
GeoTracker Global ID #T0600101467

Dear Mr. Nowell,

On behalf of Chevron Environmental Management Company's (EMC's) affiliate, Union Oil Company of California ("Union Oil"), AECOM is pleased to present the second quarter 2015 groundwater monitoring report for the site located at 3535 Pierson Street in Oakland, California (site) (**Figure 1**). The locations of the former and current site features are illustrated on **Figure 2**. Quarterly 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. (Gettler-Ryan) of Dublin, California. This report summarizes sample results collected from wells associated with the site during the second quarter of 2015.

Groundwater Monitoring Field Data

On June 3, 2015, Gettler-Ryan measured and recorded the depth to groundwater for the seven site monitoring wells (MW-A and MW-4 through MW-9). These depths were converted to groundwater elevations and used to construct a groundwater elevation contour map (**Figure 2** and **Table 1**). A copy of the groundwater gauging logs is included in **Attachment A**. The groundwater elevation data collected from well MW-A was not used in contouring because the well is screened in the deeper aquifer. The depth to groundwater at the site ranged from 11.76 to 18.70 feet below the top of well casings with calculated elevations ranging from 136.09 to 142.86 feet above mean sea level. The groundwater flow direction is variable with a variable hydraulic gradient which appears to be influenced by a groundwater divide that runs from northwest to southeast across the site (**Figure 2**).

Groundwater Sampling and Analytical Results

On June 3, 2015, Gettler-Ryan collected groundwater samples from monitoring wells MW-A and MW-4 through MW-9. The site wells historically have poor recharge; therefore, pre-purge samples are collected and if a well does not recharge within 2 hours, the pre-purge sample is submitted for analysis. Temperature, pH, and electrical conductivity readings were recorded during purging, and a copy of the purge logs is presented in **Attachment A**.

The groundwater samples were submitted to BC Laboratories, Inc. (BC Labs) of Bakersfield, California. The BC Labs analytical report dated June 22, 2015, is included as **Attachment B**. Groundwater samples were analyzed for the following based on historical trends at each monitoring well:

- Total petroleum hydrocarbons as diesel range organics (TPH-DRO) by Luft/TPHd method with silica gel cleanup;
- Total petroleum hydrocarbons as gasoline range organics (TPH-GRO) by Environmental Protection Agency (EPA) Method 8015B;
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) 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), and ethyl t-butyl ether (ETBE), ethanol, 1,2 dibromoethane (EDB), and 1,2-dichloroethane (EDC) by EPA Method 8260B.

Analytical results are presented in **Table 1**, **Table 2**, and **Figure 3** for this quarterly groundwater monitoring event. The following presents a brief summary of the sample analytical results:

- Benzene, toluene, MTBE, ETBE, DIPE, TAME, EDB, EDC, TBA, and ethanol were not detected in any of the groundwater samples analyzed.
- TPH-DRO was reported for MW-5 at 760 micrograms per liter (µg/L) with the laboratory report noting that the chromatogram is not typical of diesel.
- TPH-GRO was detected for MW-5 at 5,100 µg/L.
- Ethylbenzene, and total xylenes were detected in the groundwater sample collected from MW-5 at 39 µg/L, and 120 µg/L, respectively. Historical concentrations of ethylbenzene and total xylenes detected for MW-5 have shown an overall decreasing trend.

A summary of historical groundwater analytical data through June 2015 is presented in **Tables 3 through 5**.

Approximately 49 gallons of purge water was generated during the 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.

During the fourth quarter of 2012, 0.39 feet of free product/light non-aqueous phase liquid (LNAPL) was observed in well MW-5. Free product/LNAPL has not been observed in MW-5 since that time.

Conclusions

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

- MW-A, MW-4, MW-6, MW-7, MW-8, and MW-9 are historically non-detect for most analytes.
- MW-5 continues to show elevated petroleum hydrocarbon concentrations; however, the concentrations observed in 2015 have generally been the lowest observed to date.
- MTBE was not detected in any sample.

Future Activities

Groundwater Monitoring

AECOM will coordinate monitoring and sampling activities as per the established schedule. AECOM will submit quarterly groundwater monitoring and sampling reports.

Additional Activity

On June 16, 2015, AECOM completed the site assessment detailed in the work plan approved by Alameda County Environmental Health on January 8, 2015. The results of the assessment were detailed in the Site Assessment Report submitted on July 14, 2015. The Site Conceptual Model (SCM) will be updated with the results to identify any remaining data gaps.

Remarks/Signatures

The interpretations in this report represent AECOM's professional opinions and are based, in part, on the information supplied by Gettler-Ryan and BC Labs. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended. If you have any questions regarding this project, please contact James Harms at (916) 414-5800.

Sincerely,

James Harms
Project Manager

Jessica M. Law, PG
Senior Geologist
Stamped: 7/28/2015

ccs: Nicole M. Arceneaux, EMC (via electronic copy)
DeLong Liu, United Brothers Enterprise, 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
Table 5	Additional Historical Analytical Results

Figures

Figure 1	Site Location Map
Figure 2	Groundwater Elevation Contour Map – Second Quarter 2015
Figure 3	Groundwater Concentration Map – Second Quarter 2015

Attachments

Attachment A	Groundwater Monitoring Field Sheets
Attachment B	BC Laboratories, Inc. Analytical Reports

Tables

Table 1
Current Groundwater Monitoring Data and Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	COMMENTS
MW-A	154.79	6/3/2015	18.70	136.09	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
MW-4	153.48	6/3/2015	12.42	141.06	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
MW-5	153.66	6/3/2015	14.70	138.96	0	760 (A52)	5,100	<0.50	<0.50	39	120	
MW-6	154.62	6/3/2015	11.76	142.86	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
MW-7	155.38	6/3/2015	15.13	140.25	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
MW-8	153.71	6/3/2015	12.88	140.83	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
MW-9	153.37	6/3/2015	13.30	140.07	0	<50	<50	<0.50	<0.50	<0.50	<1.0	

NOTES:

* TOC and GWE are in feet above mean sea level

BTEX compounds analyzed by Environmental Protection Agency Method 8260B

TPH-DRO analyzed by Luft/TPHd method with silica gel cleanup

TPH-GRO analyzed by Environmental Protection Agency Method 8015B

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

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

(A52) = Chromatogram not typical of diesel

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

TPH-DRO = Total petroleum hydrocarbons as diesel/diesel range organics

TPH-GRO = Total petroleum hydrocarbons as gasoline/gasoline range organics

-- = Not analyzed/applicable

Table 2
Current Groundwater Analytical Results - Oxygenate Compounds
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-A	6/3/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-4	6/3/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-5	6/3/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-6	6/3/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-7	6/3/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-8	6/3/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
MW-9	6/3/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50

NOTES:
Oxygenate compounds analyzed by Environmental Protection Agency Method 8260B

<# = Analyte not detected at or above indicated laboratory practical quantitation limit
ID = Identification
µg/L = Micrograms per liter
MTBE = Methyl t-butyl ether
TBA = t-butyl alcohol
DIPE = Diisopropyl ether
ETBE = Ethyl t-butyl ether
TAME = t-amyl methyl ether
EDB = 1,2-Dibromoethane
EDC = 1,2-Dichloroethane

Table 3
Historical Groundwater Monitoring Data and Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-A	--	12/18/1990	--	--	--	73	ND	ND	ND	ND	ND	
	--	5/3/1991	--	--	--	ND	ND	ND	ND	ND	ND	
	--	8/7/1991	--	--	--	ND	ND	ND	ND	ND	ND	
	--	11/8/1991	--	--	--	ND	ND	ND	ND	ND	ND	
	151.80	2/6/1992	19.88	131.92	0	ND	ND	ND	ND	ND	ND	
	151.80	8/4/1992	18.95	132.85	0	ND	ND	ND	ND	ND	0.51	
	151.80	2/10/1993	17.71	134.09	0	ND	ND	ND	ND	ND	ND	
	151.80	2/10/1994	15.25	136.55	0	ND	ND	ND	0.52	ND	0.92	
	151.80	2/9/1995	15.68	136.12	0	ND	ND	ND	ND	ND	ND	
	151.80	2/6/1996	12.52	139.28	0	120	ND	ND	ND	ND	2.1	
	151.80	2/5/1997	13.01	138.79	0	61	ND	ND	ND	ND	ND	
	151.80	2/2/1998	11.91	139.89	0	ND	ND	ND	ND	ND	ND	
	151.80	2/22/1999	11.24	140.56	0	ND	ND	ND	ND	ND	ND	
	151.80	2/26/2000	12.16	139.64	0	ND	ND	ND	1.01	ND	ND	
	151.80	3/7/2001	11.91	139.89	0	131	ND	ND	ND	ND	ND	
	151.80	2/22/2002	14.08	137.72	0	<50	<50	<0.50	<0.50	<0.50	<0.50	
	151.80	2/22/2003	14.41	137.39	0	93	<50	<0.50	<0.50	<0.50	<0.50	
	151.80	2/3/2004	14.32	137.48	0	60	<50	<0.50	<0.50	<0.50	<0.50	
	151.80	2/18/2005	14.21	137.59	0	<50	<50	<0.50	<0.50	<0.50	<0.50	
	151.80	3/29/2006	12.72	139.08	0	<200	<50	<0.30	<0.30	<0.30	<0.60	
	151.80	3/28/2007	13.98	137.82	0	92	<50	<0.30	<0.30	<0.30	<0.60	
	151.80	3/22/2008	12.68	139.12	0	<50	<50	<0.30	<0.30	<0.30	<0.60	
	151.80	3/27/2009	14.35	137.45	0	53	<50	<0.30	<0.30	<0.30	<0.60	
	151.80	3/23/2010	19.55	132.25	0	<58	--	--	--	--	--	
	154.79	6/16/2010	17.85	136.94	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	9/29/2010	15.50	139.29	0	<1200	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	12/21/2010	14.43	140.36	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	3/10/2011	17.70	137.09	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	06/07/2011	13.92	140.87	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	08/18/2011	18.83	135.96	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	10/04/2011	14.67	140.12	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	01/24/2012	16.75	138.04	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	04/06/2012	17.14	137.65	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	07/02/2012	14.79	140.00	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	10/4/2012	17.52	137.27	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	1/23/2013	15.08	139.71	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	4/22/2013	15.60	139.19	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	7/31/2013	16.42	138.37	0	<50	<50	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-A (cont.)	154.79	10/17/2013	16.57	138.22	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	2/24/2014	17.33	137.46	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	4/17/2014	16.65	138.14	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	7/18/2014	18.02	136.77	0	--	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	10/21/2014	18.41	136.38	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
pre-purge	154.79	1/20/2015	17.95	136.84	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
post-purge	154.79	1/20/2015	--	--	--	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.79	**6/3/2015**	**18.70**	**136.09**	**0**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	
MW-4	153.48	6/16/2010	11.13	142.35	0	<50	58	<0.50	9.7	1.3	16	
	153.48	9/29/2010	12.62	140.86	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	12/21/2010	11.17	142.31	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	3/10/2011	10.57	142.91	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	06/07/2011	10.94	142.54	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	08/18/2011	12.07	141.41	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	10/04/2011	12.70	140.78	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	01/24/2012	12.40	141.08	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	04/06/2012	11.10	142.38	0	<40	390	<0.50	3.8	11	150	
	153.48	07/02/2012	12.14	141.34	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	10/4/2012	13.43	140.05	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	1/23/2013	11.64	141.84	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	4/22/2013	12.22	141.26	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	7/31/2013	13.24	140.24	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	10/17/2013	13.85	139.63	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	2/24/2014	13.06	140.42	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	4/17/2014	11.96	141.52	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	7/18/2014	12.90	140.58	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	10/21/2014	13.68	139.80	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
pre-purge	153.48	1/20/2015	11.98	141.50	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
post-purge	153.48	1/20/2015	--	--	--	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.48	**6/3/2015**	**12.42**	**141.06**	**0**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	
MW-5	153.66	6/16/2010	11.95	141.71	0	3,000	29,000	580	6,800	850	7,200	
	153.66	9/29/2010	13.67	139.99	0	64,000	29,000	220	4,100	2,500	23,000	
	153.66	12/21/2010	11.17	142.49	0	11,000	50,000	81	4,800	2,200	22,000	
	153.66	3/10/2011	11.35	142.31	0	4,900	48,000	69	3,600	1,700	20,000	
	153.66	06/07/2011	11.45	142.21	0	3,700	40,000	32	2,300	1,500	16,000	
	153.66	08/18/2011	12.30	141.36	0	5,400	30,000	29	1,000	980	7,200	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-5 (cont.)	153.66	10/04/2011	13.72	139.94	0	20,000	42,000	21	2,400	2,400	20,000	
	153.66	01/24/2012	12.20	141.46	0	46,000	71,000	<25	1,100	1,400	10,000	
	153.66	04/06/2012	11.88	141.78	0	21,000	58,000	9.9	880	660	9,800	
	153.66	07/02/2012	12.75	140.91	0	30,000	53,000	89	590	1,000	12,000	
	153.66	10/4/2012	16.03	137.94	0.39	No Sample Collected - Free Product in Well						
	153.66	1/23/2013	12.02	141.64	0	22,000	54,000	<25	160	1,100	13,000	
	153.66	4/22/2013	12.37	141.29	0	7,600	39,000	0.70	65	330	4,500	
	153.66	7/31/2013	15.62	138.04	0	11,000	35,000	1.0	59	470	3,500	
	153.6599991	10/17/2013	16.41	137.25	0	<50	86,000	<10	66	770	9,300	
	153.66	2/24/2014	15.27	138.39	0	1,700	3,900	<0.50	4.5	240	1,800	
	153.66	4/17/2014	12.02	141.64	0	960	27,000	<0.50	2.5	160	1,100	
	153.66	7/18/2014	15.28	138.38	0	2,100 (A52)	6,600	<0.50	0.97	84	330	
	153.66	10/21/2014	17.03	136.63	0	3,000 (A52)	27,000	<0.50	40	370	2,900	
pre-purge	153.66	1/20/2015	12.24	141.42	0	880 (A52)	9,100	<0.50	0.65	85	400	
post-purge	153.66	1/20/2015	--	--	--	1,800 (A52)	10,000	<0.50	0.54	85	370	
	153.66	**6/3/2015**	**14.70**	**138.96**	**0**	**760 (A52)**	**5,100**	**<0.50**	**<0.50**	**39**	**120**	
MW-6	154.62	12/21/2010	12.10	142.52	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	3/10/2011	11.36	143.26	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	06/07/2011	11.33	143.29	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	08/18/2011	13.00	141.62	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	10/04/2011	14.02	140.60	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	01/24/2012	11.94	142.68	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	04/06/2012	11.39	143.23	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	07/02/2012	11.49	143.13	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	10/4/2012	16.09	138.53	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	1/23/2013	11.41	143.21	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	4/22/2013	11.43	143.19	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	7/31/2013	15.71	138.91	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	10/17/2013	16.83	137.79	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	2/24/2014	15.22	139.40	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	4/17/2014	11.43	143.19	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	7/18/2014	14.96	139.66	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	10/21/2014	16.70	137.92	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
pre-purge	154.62	1/20/2015	11.61	143.01	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
post-purge	154.62	1/20/2015	--	--	--	<50	<50	<0.50	<0.50	<0.50	<1.0	
	154.62	**6/3/2015**	**11.76**	**142.86**	**0**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-7	155.38	12/21/2010	13.46	141.9200048	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	3/10/2011	12.07	143.3100052	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	06/07/2011	12.59	142.79	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	08/18/2011	14.37	141.01	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	10/04/2011	15.22	140.16	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	01/24/2012	15.32	140.06	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	04/06/2012	13.09	142.29	0	<49	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	07/02/2012	14.42	140.96	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	10/4/2012	16.20	139.18	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	1/23/2013	13.27	142.11	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	4/22/2013	14.30	141.08	0	<50	52	<0.50	<0.50	<0.50	<1.0	
	155.38	7/31/2013	16.30	139.08	0	Insufficient Water to Sample						
	155.38	10/17/2013	16.77	138.61	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	2/24/2014	15.33	140.05	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	4/17/2014	13.82	141.56	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	7/18/2014	15.70	139.68	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	10/21/2014	16.67	138.71	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
pre-purge	155.38	1/20/2015	14.13	141.25	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
post-purge	155.38	1/20/2015	--	--	--	<50	<50	<0.50	<0.50	<0.50	<1.0	
	155.38	**6/3/2015**	**15.13**	**140.25**	**0**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	
MW-8	153.71	12/21/2010	11.63	142.0800066	0	81	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	3/10/2011	11.38	142.3300066	0	61	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	06/07/2011	11.54	142.17	0	71	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	08/18/2011	12.47	141.24	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	10/04/2011	12.90	140.81	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	01/24/2012	12.52	141.19	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	04/06/2012	11.35	142.36	0	160	270	<0.50	3.7	7.8	91	
	153.71	07/02/2012	12.50	141.21	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	10/4/2012	13.89	139.82	0	<50	<50	<0.50	<0.50	<0.50	2.4	
	153.71	1/23/2013	13.06	140.65	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	4/22/2013	12.82	140.89	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	7/31/2013	13.63	140.08	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	10/17/2013	14.48	139.23	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	2/24/2014	13.56	140.15	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	4/17/2014	11.90	141.81	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	7/18/2014	13.78	139.93	0	<50	<50	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-8 (cont.)	153.71	10/21/2014	14.38	139.33	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
pre-purge	153.71	1/20/2015	13.28	140.43	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
post-purge	153.71	1/20/2015	--	--	--	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.71	**6/3/2015**	**12.88**	**140.83**	**0**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	
MW-9	153.37	12/21/2010	10.53	142.84	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	3/10/2011	10.86	142.51	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	06/07/2011	11.36	142.01	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	08/18/2011	12.52	140.85	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	10/04/2011	13.32	140.05	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	01/24/2012	11.23	142.14	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	04/06/2012	10.98	142.39	0	<40	340	<0.50	4.4	9	120	
	153.37	07/02/2012	12.58	140.79	0	<40	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	10/4/2012	14.31	139.06	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	1/23/2013	11.11	142.26	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	4/22/2013	12.22	141.15	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	7/31/2013	14.10	139.27	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	10/17/2013	14.56	138.81	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	2/24/2014	12.85	140.52	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	4/17/2014	11.73	141.64	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	7/18/2014	13.69	139.68	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	10/21/2014	14.32	139.05	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
pre-purge	153.37	1/20/2015	11.80	141.57	0	<50	<50	<0.50	<0.50	<0.50	<1.0	
post-purge	153.37	1/20/2015	--	--	--	<50	<50	<0.50	<0.50	<0.50	<1.0	
	153.37	**6/3/2015**	**13.30**	**140.07**	**0**	**<50**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	

NOTES:

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

BTEX compounds analyzed by Environmental Protection Agency Method 8260B

TPH-DRO analyzed by Luft/TPHd method with silica gel cleanup

TPH-GRO analyzed by Environmental Protection Agency Method 8015B

Free product correlates to light non-aqueous phase liquid

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

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

-- = Not analyzed/applicable

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

TPH-DRO = Total petroleum hydrocarbons as diesel/diesel range organics

TPH-GRO = Total petroleum hydrocarbons as gasoline/gasoline range organics

ND = Non-detect

(A52) = Chromatogram not typical of diesel

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	METHANOL (µg/L)	METHANE (mg/L)	FERROUS IRON (mg/L)	NITRATE (AS N) (mg/L)	SULFATE (mg/L)
MW-A	12/18/1990	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/3/1991	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/7/1991	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/8/1991	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/6/1992	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/4/1992	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/10/1993	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/10/1994	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/9/1995	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/6/1996	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/5/1997	ND	--	--	--	--	--	--	--	--	--	--	--	--
	2/2/1998	ND	--	--	--	--	--	--	--	--	--	--	--	--
	2/22/1999	ND	--	--	--	--	--	--	--	--	--	--	--	--
	2/26/2000	ND	--	--	--	--	--	--	--	--	--	--	--	--
	3/7/2001	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--
	2/22/2002	<0.50	--	--	--	--	--	--	--	--	--	--	--	--
	2/22/2003	<2.0	<100	<500	<2.0	<2.0	<2.0	<2.0	<0.50	--	--	--	--	--
	2/3/2004	<2.0	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	2/18/2005	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	3/29/2006	0.54	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	3/28/2007	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	3/22/2008	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	3/27/2009	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/23/2010	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/16/2010	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	9/29/2010	0.63	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	12/21/2010	0.65	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/10/2011	0.56	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	06/07/2011	0.57	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	08/18/2011	0.61	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	140	11	69
	10/04/2011	0.72	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	<100	13	69
	01/24/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	04/06/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	07/02/2012	0.56	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/4/2012	0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	1/23/2013	0.55	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/22/2013	0.59	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/31/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/17/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	**--**	**--**	**--**	**--**	**--**
	2/24/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	**--**	**--**	**--**	**--**	**--**

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	METHANOL (µg/L)	METHANE (mg/L)	FERROUS IRON (mg/L)	NITRATE (AS N) (mg/L)	SULFATE (mg/L)
MW-A (cont.)	4/17/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/21/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
pre-purge	1/20/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
post-purge	1/20/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	6/3/2015	**<0.50**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**--**
MW-4	6/16/2010	5.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	9/29/2010	7.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	12/21/2010	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/10/2011	2.2	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	06/07/2011	1.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	08/18/2011	4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.04	<100	4.6	52
	10/04/2011	3.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.03	100	4.3	50
	01/24/2012	1.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	04/06/2012	2.2	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	07/02/2012	2.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/4/2012	1.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	1/23/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/22/2013	2.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/31/2013	0.95	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/17/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	**--**	**--**	**--**	**--**	**--**
	2/24/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	**--**	**--**	**--**	**--**	**--**
	4/17/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/21/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
pre-purge	1/20/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
post-purge	1/20/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	6/3/2015	**<0.50**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**--**
MW-5	6/16/2010	<50	<1000	<25000	<50	<50	<50	<50	<50	<100	--	--	--	--
	9/29/2010	52	<1000	<25000	<50	<50	<50	<50	<50	<1000	--	--	--	--
	12/21/2010	<50	<1000	<25000	<50	<50	<50	<50	<50	<100	--	--	--	--
	3/10/2011	<50	<1000	<25000	<50	<50	<50	<50	<50	<100	--	--	--	--
	06/07/2011	24	150	330	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	08/18/2011	56	44	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	9.7	15,000	<0.44	<1.0
	10/04/2011	42	<250	<6,200	<12	<12	<12	<12	<12	<100	1.9	17,000	<0.44	1.3
	01/24/2012	<25	<500	<12,000	<25	<25	<25	<25	<25	--	--	--	--	--
	04/06/2012	12	<120	<3,100	<6.2	<6.2	<6.2	<6.2	<6.2	--	--	--	--	--
	07/02/2012	26	<500	<12,000	<25	<25	<25	<25	<25	--	--	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	METHANOL (µg/L)	METHANE (mg/L)	FERROUS IRON (mg/L)	NITRATE (AS N) (mg/L)	SULFATE (mg/L)
MW-5 (cont.)	10/4/2012	No Sample Collected - Free Product in Well												
	1/23/2013	<25	<500	<12,000	<25	<25	<25	<25	<25	--	--	--	--	--
	4/22/2013	2.9	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/31/2013	9.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/17/2013	<10	<200	<5,000	<10	<10	<10	<10	<10	--	--	--	--	--
	2/24/2014	1.7	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/17/2014	1.4	310	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/18/2014	3.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/21/2014	7.7	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	**--**	**--**	**--**	**--**	**--**
pre-purge	1/20/2015	2.2	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
post-purge	1/20/2015	2.0	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	6/3/2015	**<0.50**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**--**
MW-6	12/21/2010	32	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/10/2011	4.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	06/07/2011	4.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	08/18/2011	2.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.0027	<200	18	66
	10/04/2011	3.1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	100	24	78
	01/24/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	04/06/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	07/02/2012	0.56	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/4/2012	0.75	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	1/23/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/22/2013	0.53	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/31/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/17/2013	16	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	**--**	**--**	**--**	**--**	**--**
	2/24/2014	47	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	**--**	**--**	**--**	**--**	**--**
	4/17/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/21/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	**--**	**--**	**--**	**--**	**--**
pre-purge	1/20/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
post-purge	1/20/2015	0.83	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	6/3/2015	**<0.50**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**--**
MW-7	12/21/2010	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/10/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	06/07/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	08/18/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.0012	<500	3.8	100
	10/04/2011	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	<500	4.2	100
	01/24/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	METHANOL (µg/L)	METHANE (mg/L)	FERROUS IRON (mg/L)	NITRATE (AS N) (mg/L)	SULFATE (mg/L)
MW-7 (cont.)	04/06/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	07/02/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/4/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	1/23/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/22/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/30/2013	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/17/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	**--**	**--**	**--**	**--**	**--**
	2/24/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/17/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/21/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
pre-purge	1/20/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
post-purge	1/20/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	6/3/2015	**<0.50**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**--**
MW-8	12/21/2010	3.9	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/10/2011	2.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	06/07/2011	3.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	08/18/2011	2.1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	140	1.5	65
	10/04/2011	1.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	190	2.8	67
	01/24/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	04/06/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	07/02/2012	1.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/4/2012	0.69	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	1/23/2013	1.0	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/22/2013	0.88	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/31/2013	0.79	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/17/2013	0.78	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	**--**	**--**	**--**	**--**	**--**
	2/24/2014	1.1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/17/2014	1.1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/18/2014	0.94	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/21/2014	2.0	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
pre-purge	1/20/2015	1.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
post-purge	1/20/2015	1.1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	6/3/2015	**<0.50**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**--**
MW-9	12/21/2010	1.2	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	3/10/2011	0.90	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	06/07/2011	1.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	--	--	--	--
	08/18/2011	2.1	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.001	<500	2.7	47

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)	METHANOL (µg/L)	METHANE (mg/L)	FERROUS IRON (mg/L)	NITRATE (AS N) (mg/L)	SULFATE (mg/L)
MW-9 (cont.)	10/04/2011	2.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<100	<0.0010	<200	3.2	47
	01/24/2012	1.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	04/06/2012	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	07/02/2012	2.0	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/4/2012	1.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	1/23/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/22/2013	0.83	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/31/2013	1.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/17/2013	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	**--**	**--**	**--**	**--**	**--**
	2/24/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	4/17/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	7/18/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	10/21/2014	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
pre-purge	1/20/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
post-purge	1/20/2015	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--
	6/3/2015	**<0.50**	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**--**

NOTES:

Oxygenate compounds analyzed by Environmental Protection Agency Method 8260B

Free product correlates to light non-aqueous phase liquid

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

ID = Identification

mg/L = Milograms per liter

µg/L = Micrograms per liter

ND = Non-detect

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

-- = Not analyzed/applicable

Table 5
Additional Historical Analytical Results
RO253, Unocal No. 5781 (351640)
3535 Pierson Street
Oakland, California

WELL ID	DATE	Dichloro-difluoro-methane (µg/L)	1,1-DCA (µg/L)	1,1-DCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	1,2-Dichloro-propane (µg/L)	cis-1,3-Dichloro-propene (µg/L)
MW-A	2/3/2004	ND<1.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	2/18/2005	ND<1.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/29/2006	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/28/2007	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/22/2008	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/27/2009	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

WELL ID	DATE	1,1,2,2-Tetrachloro-ethane (µg/L)	Tetrachloro-ethene (PCE) (µg/L)	Trichloro-trifluoro-ethane (µg/L)	1,1,1-Trichloro-ethane (µg/L)	1,1,2-Trichloro-ethane (µg/L)	Trichloro-ethene (TCE) (µg/L)	Trichloro-fluoro-methane (µg/L)	Vinyl chloride (µg/L)
MW-A	2/3/2004	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50
	2/18/2005	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50
	3/29/2006	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/28/2007	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/22/2008	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	3/27/2009	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

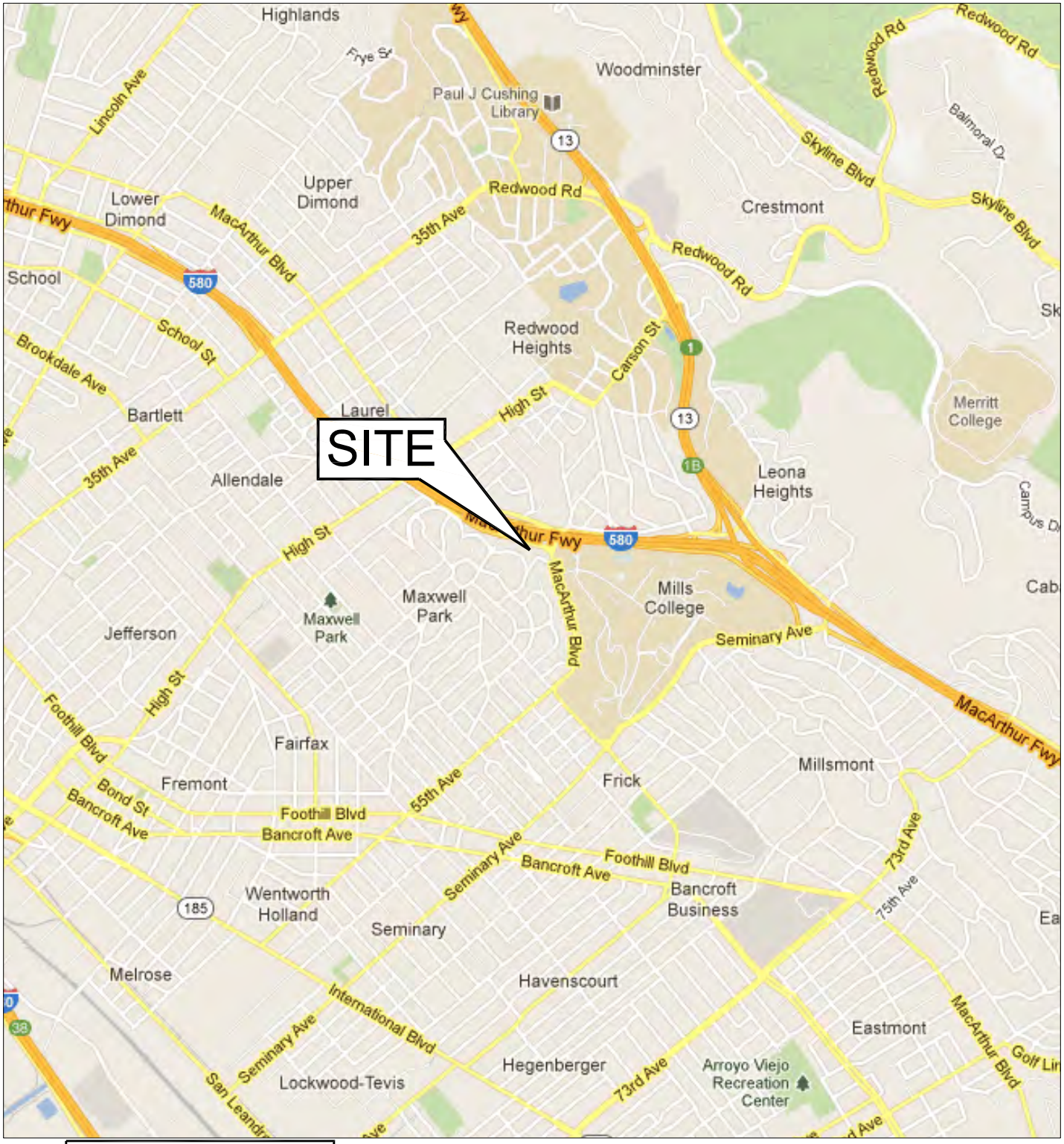
NOTES:

µg/L = Micrograms per liter

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

ID = Identification

Figures



SOURCE: Google Maps (R) dated July 24, 2012

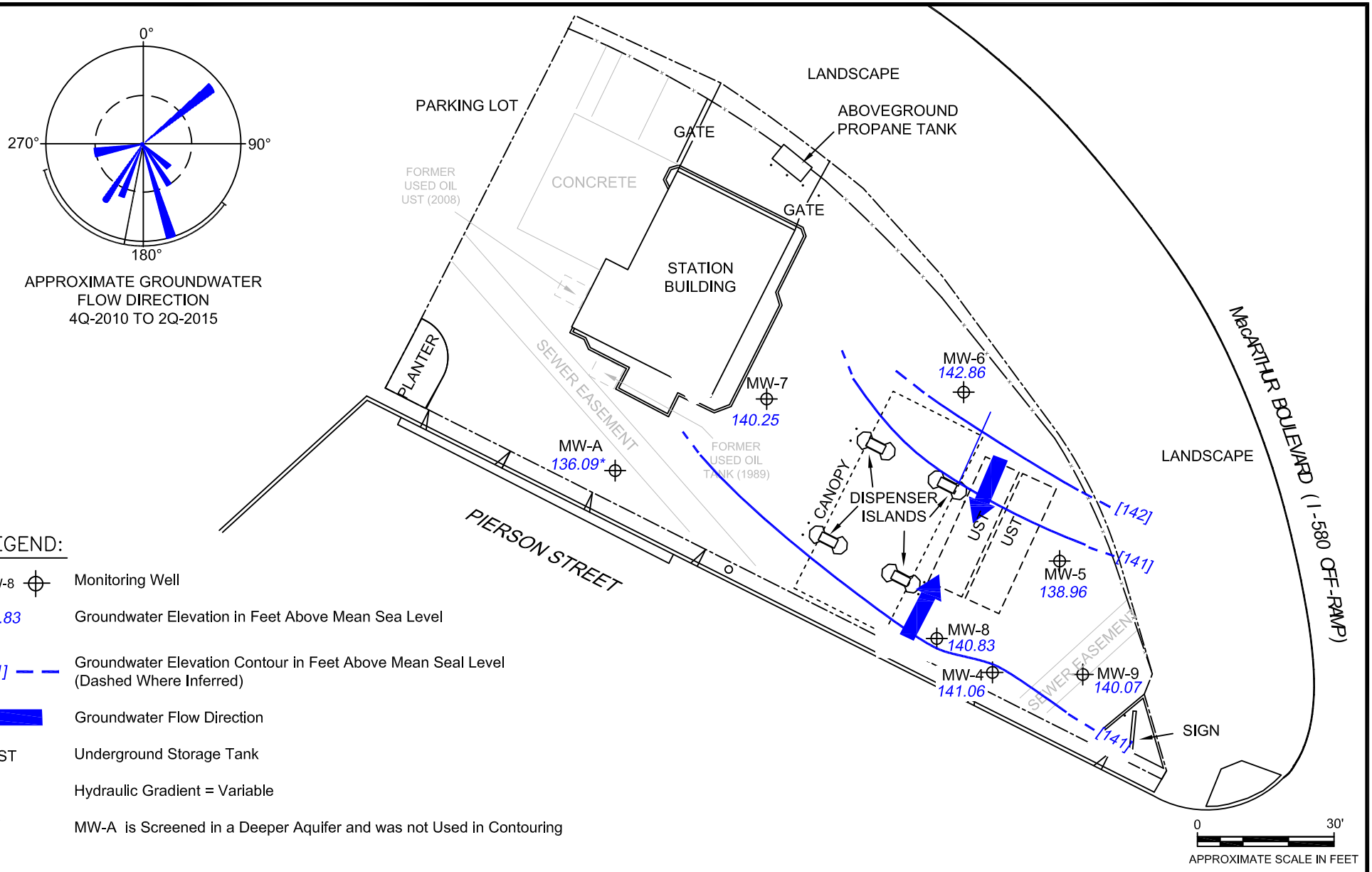
FIGURE 1

SITE LOCATION MAP

UNOCAL NO. 5781
(351640)
3535 PIERSON STREET
OAKLAND, CALIFORNIA

PROJECT NO.	DRAWN BY 04/15/2014
FILE NO. 351640	PREPARED BY CD
REVISION NO.	REVIEWED BY JH

AECOM



LEGEND:

MW-8 ⊕	Monitoring Well
140.83	Groundwater Elevation in Feet Above Mean Sea Level
[141] — —	Groundwater Elevation Contour in Feet Above Mean Seal Level (Dashed Where Inferred)
⟵	Groundwater Flow Direction
UST	Underground Storage Tank
	Hydraulic Gradient = Variable
*	MW-A is Screened in a Deeper Aquifer and was not Used in Contouring

GROUNDWATER ELEVATION CONTOUR MAP - SECOND QUARTER 2015

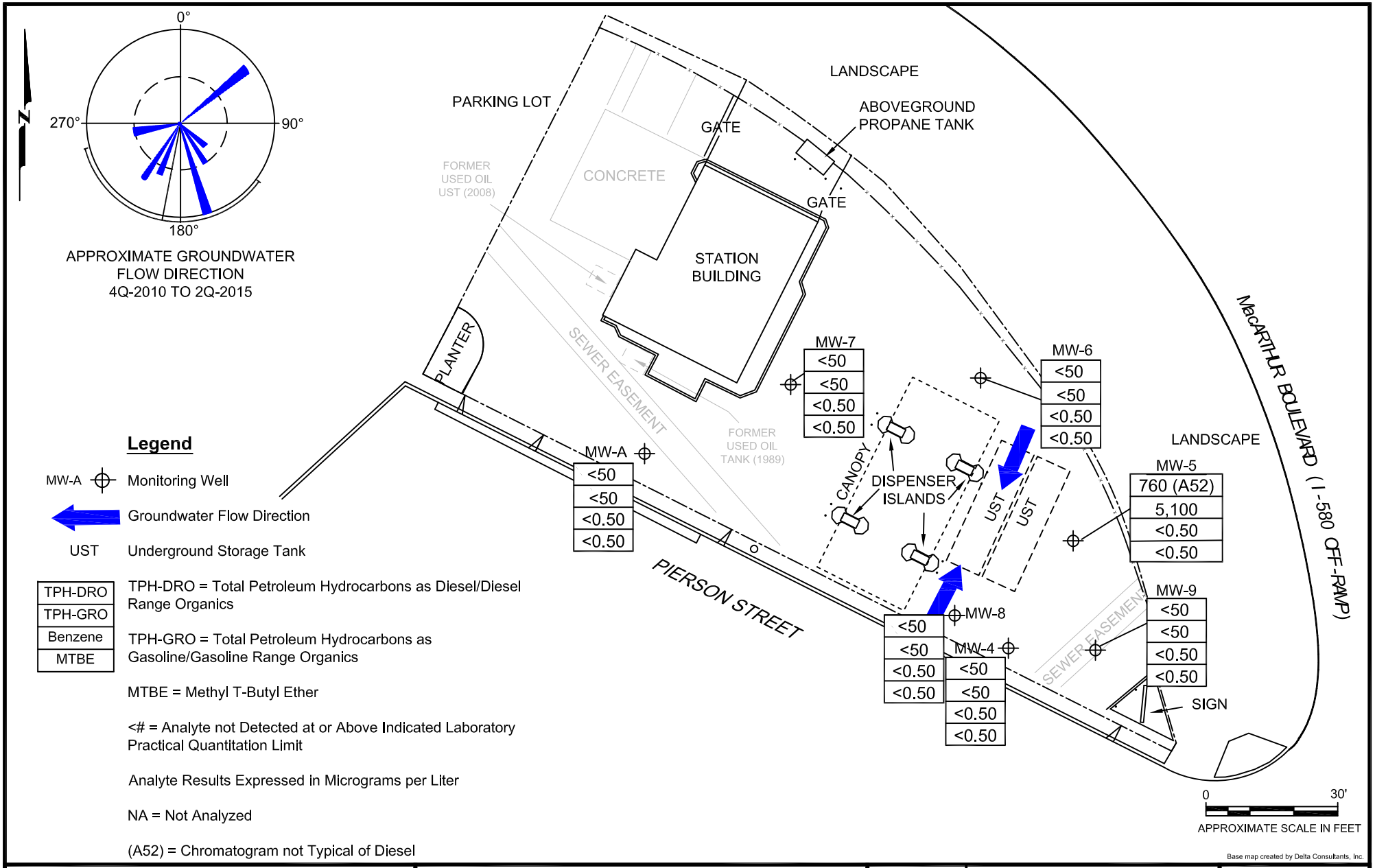
RO253, Unocal No. 5781 (351640)
3535 Pierson Street, Oakland, California

SCALE:	DATE:	PROJECT NUMBER:
1" = 30'	7/15/2015	60338852

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

DESIGNED BY:	REVISIONS				FIGURE NUMBER:
	NO.:	DESCRIPTION:	DATE:	BY:	2
DRAWN BY: JH					
CHECKED BY: JL					
APPROVED BY: JH					

P:\ENV\01231-CHEVRON\76PRODUCTS_TRANSFER_SITES\351640_5781_OAKLAND\7.0 DELIVERABLES\7.2 CADD\2Q15\FIGURE 2_GWE_351640_2Q15.DWG



Legend

MW-A — Monitoring Well

Groundwater Flow Direction

UST — Underground Storage Tank

TPH-DRO
TPH-GRO
Benzene
MTBE

TPH-DRO = Total Petroleum Hydrocarbons as Diesel/Diesel Range Organics

TPH-GRO = Total Petroleum Hydrocarbons as Gasoline/Gasoline Range Organics

MTBE = Methyl T-Butyl Ether

<# = Analyte not Detected at or Above Indicated Laboratory Practical Quantitation Limit

Analyte Results Expressed in Micrograms per Liter

NA = Not Analyzed

(A52) = Chromatogram not Typical of Diesel

Base map created by Delta Consultants, Inc.

GROUNDWATER CONCENTRATION MAP - SECOND QUARTER 2015

RO253, Unocal No. 5781 (351640)
3535 Pierson Street, Oakland, California

SCALE:	DATE:	PROJECT NUMBER:
1" = 30'	7/15/2015	60338852

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

P:\ENV\01231-CHEVRON\76PRODUCTS_TRANSFER_SITES\351640_5781_OAKLAND\7.0 DELIVERABLES\7.2 CADD\2Q15\FIGURE 3 CONC 2Q15_351640.DWG

Attachment A

Groundwater Monitoring Field Sheets

GETTLER-RYAN INC.

TRANSMITTAL

June 12, 2015
G-R #385641

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
#351640/5781
3535 Pierson Street
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Second Quarter Event of June 3, 2015**

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/351640 5781

WELL CONDITION STATUS SHEET

Client/ Facility #: Chevron #351640 / 5781
Site Address: 3535 Pierson Street
City: Oakland, CA

Job #: 385641
Event Date: 6.3.15
Sampler: FT

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-4	OK	→	→	→	→	→	→	↓	↓	Emco | 8"|2	
MW-4	OK	→	→	→	→	→	→			Emco |12"|2	
MW-5	OK	→	→	→	→	→	→				
MW-6	OK	→	→	C	OK	OK	OK				
MW-7	OK	→	→	→	→	→	→				
MW-8	OK	→	→	→	→	→	→				
MW-9	OK	→	→	C	OK	OK	OK	↓	↓	↓ ↓	

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 #351640 / 5781 Job Number: 385641
Site Address: 3535 Pierson Street Event Date: 6.3.15 (inclusive)
City: Oakland, CA Sampler: FT

Well ID MW- A Date Monitored: 6.3.15
Well Diameter (2)/4 in.
Total Depth 45.05 ft.
Depth to Water 18.70 ft. ☐ Check if water column is less then 0.50 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

26.35 xVF .17 = 4.47 x3 case volume = Estimated Purge Volume: 13.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 23.97

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	✓
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

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

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

Start Time (purge): 1000 Weather Conditions: CLOUDY / SUNNY
Sample Time/Date: 1020 / 6.3.15 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: ≈ 2.0 gpm. Sediment Description: NONE
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 22.65

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
1002	4.0	7.58	742	19.7		
1004	8.0	7.54	737	19.4		
1006	13.0	7.52	732	19.1		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- A	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)
	2 x 1 liter ambers	YES	NP	BC LABS	TPH-DRO w/sgc(8015M)

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 #351640 / 5781 Job Number: 385641
Site Address: 3535 Pierson Street Event Date: 6.3.15 (inclusive)
City: Oakland, CA Sampler: FT

Well ID MW-4 Date Monitored: 6.3.15
Well Diameter 2/(4) in.
Total Depth 24.75 ft.
Depth to Water 12.42 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.

12.33 xVF .66 = 8.13 x3 case volume = Estimated Purge Volume: 24.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.88

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

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

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

Start Time (purge): 1210 Weather Conditions: SUNNY
Sample Time/Date: 1205 / 6.3.15 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 2.0 gpm. Sediment Description: NONE
Did well de-water? yes If yes, Time: 1218 Volume: 16.0 gal. DTW @ Sampling: 12.92

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1214	8.0	7.63	710	20.1		
1218	16.0	7.59	701	19.8		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)
	2 x 1 liter ambers	YES	NP	BC LABS	TPH-DRO w/sgc(8015M)

COMMENTS: WELL DID NOT RECOVER SUBMITTED DUE- PURGE SAMPLES. SLOW RECOVERY

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/Facility#: Chevron #351640 / 5781 Job Number: 385641
Site Address: 3535 Pierson Street Event Date: 6.3.15 (inclusive)
City: Oakland, CA Sampler: FT

Well ID MW-5 Date Monitored: 6.3.15
Well Diameter 2/④ in.
Total Depth 19.92 ft.
Depth to Water 14.70 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.

5.22 xVF .66 = 3.44 x3 case volume = Estimated Purge Volume: 10.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.74

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

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

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

Start Time (purge): 1310 Weather Conditions: SUNNY
Sample Time/Date: 1305 / 6.3.15 Water Color: CLEAR Odor: Y / N STRONG
Approx. Flow Rate: ≈ 2.0 gpm. Sediment Description: NONE
Did well de-water? YES If yes, Time: 1314 Volume: 7.0 gal. DTW @ Sampling: 14.70

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1312	3.5	7.21	1215	19.6		
1314	7.0	7.18	1224	19.2		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)
	2 x 1 liter ambers	YES	NP	BC LABS	TPH-DRO w/sgc(8015M)

COMMENTS: WELL DIDN'T RECOVER SUBMITTED PRE-PURGE SAMPLES. SLOW RECOVERY

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351640 / 5781 Job Number: 385641
Site Address: 3535 Pierson Street Event Date: 6.3.15 (inclusive)
City: Oakland, CA Sampler: FT

Well ID MW-6 Date Monitored: 6.3.15
Well Diameter (2)/4 in.
Total Depth 19.97 ft.
Depth to Water 11.76 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.

8.21 xVF .17 = 1.39 x3 case volume = Estimated Purge Volume: 4.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.40

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump		Peristaltic Pump	
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

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

Start Time (purge): 1235 Weather Conditions: Sunny
Sample Time/Date: 1235 / 6.3.15 Water Color: Lt. Brn. Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: S. Silty
Did well de-water? No If yes, Time: ____ Volume: ____ gal. DTW @ Sampling: 11.76

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1238	1.5	7.66	645	19.3		
1241	3.0	7.64	640	19.0		
1244	4.0	7.61	636	18.8		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)
	2 x 1 liter ambers	YES	NP	BC LABS	TPH-DRO w/sgc(8015M)

COMMENTS: WELL DID NOT RECOVER SUBMITTED PRE-PURGE SAMPLES. SLOW RECOVERY

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Lock: ____ Add/Replaced Plug: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351640 / 5781 Job Number: 385641
Site Address: 3535 Pierson Street Event Date: 6.3.15 (inclusive)
City: Oakland, CA Sampler: FT

Well ID MW-7 Date Monitored: 6.3.15
Well Diameter ②/4 in.
Total Depth 19.70 ft.
Depth to Water 15.13 ft. ☐ Check if water column is less then 0.50 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

4.57 xVF .17 = .77 x3 case volume = Estimated Purge Volume: 2.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 16.04

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump		Peristaltic Pump	
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

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

Start Time (purge): 1035 Weather Conditions: CLOUDY / SUNNY
Sample Time/Date: 1035 / 6.3.15 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: NONE
Did well de-water? NO If yes, Time: ____ Volume: ____ gal. DTW @ Sampling: 15.13

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1038	.75	7.61	686	20.6		
1041	1.5	7.59	683	20.4		
1045	2.0	7.56	681	20.3		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)
	2 x 1 liter ambers	YES	NP	BC LABS	TPH-DRO w/sgc(8015M)

COMMENTS: SLOW RECOVERY
WELL DID NT RECOVER SUBMITTED PRE-PURGE SAMPLES.

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Lock: ____ Add/Replaced Plug: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #351640 / 5781 Job Number: 385641
Site Address: 3535 Pierson Street Event Date: 6.3.15 (inclusive)
City: Oakland, CA Sampler: FT

Well ID MW-8
Well Diameter (2)/4 in.
Total Depth 19.93 ft.
Depth to Water 12.88 ft.
7.05 xVF .17 = 1.19 x3 case volume = Estimated Purge Volume: 4.0 gal.

Date Monitored: 6.3.15

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.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.29

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

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

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

Start Time (purge): 1100 Weather Conditions: SUNNY / CLOUDY
Sample Time/Date: 1125 / 6.3.15 Water Color: LT. BRN. Odor: Y / (N)
Approx. Flow Rate: ~ gpm. Sediment Description: S. SILTY
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 14.25

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1103	1.5	7.53	736	19.8		
1106	3.0	7.51	731	19.5		
1109	4.0	7.49	726	19.1		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)
	2 x 1 liter ambers	YES	NP	BC LABS	TPH-DRO w/sgc(8015M)

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 #351640 / 5781 Job Number: 385641
Site Address: 3535 Pierson Street Event Date: 6-3-15 (inclusive)
City: Oakland, CA Sampler: FT

Well ID MW-9 Date Monitored: 6-3-15
Well Diameter 2/4 in.
Total Depth 19.68 ft.
Depth to Water 13.30 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.

6.38 xVF .17 = 1.08 x3 case volume = Estimated Purge Volume: 3.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.57

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump		Peristaltic Pump	
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

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

Start Time (purge): 1140 Weather Conditions: SUNNY / CLOUDY
Sample Time/Date: 1140 / 6.3.15 Water Color: LT. BRN. Odor: Y / (N)
Approx. Flow Rate: ✓ gpm. Sediment Description: S. SILTY
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 13.30

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1143	1.0	7.68	752	19.9		
1146	2.0	7.64	748	20.3		
1149	3.0	7.62	742	20.9		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-9	6 x voa vial	YES	HCL	BC LABS	TPH-GRO(8015)/BTEX+MTBE(8260)/8 OXYS(8260)
	2 x 1 liter ambers	YES	NP	BC LABS	TPH-DRO w/sgc(8015M)

COMMENTS: SLOW RECOVERY
WELL DID NOT RECOVER SUBMITTED PLE- PURGE SAMPLES.

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: 5781	Union Oil Consultant: AECOM
Site Global ID: T0600101467	Consultant Contact: JAMES HARMS
Site Address: 3535 PIERSON ST. OAKLAND, CA	Consultant Phone No.: (916) 361-6412
	Sampling Company: [redacted] GETTLER-RYAN
Union Oil PM: NICOLE M. ARCENEAUX	Sampled By (PRINT): FRANK TEMMINONI
Union Oil PM Phone No.: (925) 790-6912 / (510) 363-7354	
Charge Code: NWRTB- 0 351640 -0- LAB	Sampler Signature: [signature]

This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.

BC Laboratories, Inc.
Project Manager: Molly Meyers
4100 Atlas Court, Bakersfield, CA 93308
Phone No. 661-327-4911

ANALYSES REQUIRED

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

Special Instructions

SAMPLE ID

Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers	TPH - Diesel by EPA 8015 M w/ SGC	TPH - G by [redacted] (8015)	BTEX/MTBE/[redacted] by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	8 Oxy's (8260B)						Notes / Comments
QA	(W)-S-A		150603		2		X	X									
MW-A	W-S-A		↓	1020	8	X	X	X			X						
MW-4	W-S-A		↓	1205	↓	↓	↓	↓			↓						
MW-5	W-S-A		↓	1305	↓	↓	↓	↓			↓						
MW-6	W-S-A		↓	1235	↓	↓	↓	↓			↓						
MW-7	W-S-A		↓	1035	↓	↓	↓	↓			↓						
MW-8	W-S-A		↓	1125	↓	↓	↓	↓			↓						
MW-9	W-S-A		↓	1140	↓	↓	↓	↓			↓						
	W-S-A																
	W-S-A																
	W-S-A																
	W-S-A																

Relinquished By	Company	Date / Time:	Relinquished By	Company	Date / Time :	Relinquished By	Company	Date / Time:
[signature]	G-R INC	6-3-15 1730	[signature]	GR[illegible]	06-04-15 1500			

Received By	Company	Date / Time:	Received By	Company	Date / Time :	Received By	Company	Date / Time:
GETTLER-RYAN FRIDGE		[illegible] 1730	Nancy Began	BC LAB	6-4-15 1500			

Attachment B

BC Laboratories, Inc. Analytical Reports

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 06/22/2015

Jim Harms

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Client Project:	351640
BCL Project:	5781
BCL Work Order:	1513740
Invoice ID:	B206299

Enclosed are the results of analyses for samples received by the laboratory on 6/4/2015. 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

15-13740

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: 5781	Union Oil Consultant: AECOM
Site Global ID: T0600101467	Consultant Contact: JAMES HARMS
Site Address: 3535 PIERSON ST. OAKLAND, CA	Consultant Phone No.: (916) 361-6412
Union Oil PM: NICOLE M. ARCENEAUX	Sampling Company: [redacted] GETTLER-RYAN
Union Oil PM Phone No.: (925) 790-6912 / (510) 363-7354	Sampled By (PRINT): FRANK TEMMINONI
Charge Code: NWRTB-0 351640 -0- LAB	Sampler Signature:
This is a LEGAL document. ALL fields must be filled out CORRECTLY and COMPLETELY.	BC Laboratories, Inc. **Project Manager: Molly Meyers** 4100 Atlas Court, Bakersfield, CA 93308 Phone No. 661-327-4911

SAMPLE ID						ANALYSES REQUIRED												
Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers	TPH - Diesel by EPA 8015M (W) SGC	TPH - G by [redacted] (8015)	BTEX/MTBE/[redacted] by EPA 8260[redacted]	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS	8 OXYS (8260B)							Notes / Comments
-1 QA	W-S-A		150603		2		X	X										
-2 MW-A	W-S-A			1020	8	X	X	X			X							
-3 MW-4	W-S-A			1205														
-4 MW-5	W-S-A			1305														
-5 MW-6	W-S-A			1235														
-6 MW-7	W-S-A			1035														
-7 MW-8	W-S-A			1125														
-8 MW-9	W-S-A			1140														
	W-S-A																	
	W-S-A																	
	W-S-A																	
	W-S-A																	

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

Special Instructions

CHK BY [redacted] DISTRIBUTION SUB-OUT

Relinquished By	Company	Date / Time:
[signature]	GRINC.	6.3.15 1730
[signature]	GRINC	06-04-15 1500
Gary Bogan	BCLAB	6-4-15 1830

Received By	Company	Date / Time:
GETTLER-RYAN FRIDGE		06-04-15 0700
Gary Bogan	BCLAB	6-4-15 1500
[signature]	BCLAB	6/4/15 20:00

REL. [signature] 6/4/15 2320 [signature] 6/4/15 2320

Chain of Custody and Cooler Receipt Form for 1513740 Page 2 of 2

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 15-13740

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐	Ice Chest ☒ None ☐ Box ☐	YES ☐ NO ☐
BC Lab Field Service ☒ Other ☐ (Specify)_____	Other ☐ (Specify)_____	

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: Amber Thermometer ID: 208

Temperature: (A) 1.2 °C / (C) 1.3 °C

Date/Time 6/4/15 2337

Analyst Init KIB

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	AB									
40ml VOA VIAL		A-F	A-F	A-F	A-F	A-F	A-F	A-F		
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 8015M										
8oz / 16oz / 32oz AMBER		GH	GH	GH	GH	GH	GH	GH		
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
Tedlar Bag										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: IF came in empty.

Sample Numbering Completed By: VVI Date/Time: 6/5/15 0745

A = Actual / C = Corrected

Rev. No. 19 05/06/2015 S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\SAMRECrev 19]

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1513740-01	**COC Number:**	---	**Receive Date:**	06/04/2015 23:20
	Project Number:	5781	**Sampling Date:**	06/03/2015 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	QA-W-150603	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600101467	
			Location ID (FieldPoint): QA	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1513740-02	**COC Number:**	---	**Receive Date:**	06/04/2015 23:20
	Project Number:	5781	**Sampling Date:**	06/03/2015 10:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-A-W-150603	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600101467	
			Location ID (FieldPoint): MW-A	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1513740-03	**COC Number:**	---	**Receive Date:**	06/04/2015 23:20
	Project Number:	5781	**Sampling Date:**	06/03/2015 12:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-4-W-150603	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600101467	
			Location ID (FieldPoint): MW-4	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1513740-04	**COC Number:**	---	**Receive Date:**	06/04/2015 23:20
	Project Number:	5781	**Sampling Date:**	06/03/2015 13:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-5-W-150603	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600101467			
	Location ID (FieldPoint): MW-5			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1513740-05	**COC Number:**	---	**Receive Date:**	06/04/2015 23:20
	Project Number:	5781	**Sampling Date:**	06/03/2015 12:35
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-6-W-150603	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600101467			
	Location ID (FieldPoint): MW-6			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1513740-06	**COC Number:**	---	**Receive Date:**	06/04/2015 23:20
	Project Number:	5781	**Sampling Date:**	06/03/2015 10:35
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-7-W-150603	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600101467			
	Location ID (FieldPoint): MW-7			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1513740-07	**COC Number:**	---	**Receive Date:**	06/04/2015 23:20
	Project Number:	5781	**Sampling Date:**	06/03/2015 11:25
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-8-W-150603	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600101467			
	Location ID (FieldPoint): MW-8			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1513740-08	**COC Number:**	---	**Receive Date:**	06/04/2015 23:20
	Project Number:	5781	**Sampling Date:**	06/03/2015 11:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-9-W-150603	**Lab Matrix:**	Water
	Sampled By:	GRD	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600101467			
	Location ID (FieldPoint): MW-9			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1513740-01 | **Client Sample Name:** 5781, QA-W-150603, 6/3/2015 12:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
t-Butyl alcohol	ND	ug/L	10		EPA-8260B	ND		1
Diisopropyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Ethanol	ND	ug/L	250		EPA-8260B	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	86.7	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	96.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	106	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/09/15	06/09/15 13:45	SE1	MS-V10	1	BYF0807

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1513740-01 | **Client Sample Name:** 5781, QA-W-150603, 6/3/2015 12:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	103	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/09/15	06/09/15 10:13	AKM	GC-V9	1	BYF0753

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1513740-02 | **Client Sample Name:** 5781, MW-A-W-150603, 6/3/2015 10:20:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
t-Butyl alcohol	ND	ug/L	10		EPA-8260B	ND		1
Diisopropyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Ethanol	ND	ug/L	250		EPA-8260B	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	87.4	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	106	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/09/15	06/09/15 14:03	SE1	MS-V10	1	BYF1014

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1513740-02 | **Client Sample Name:** 5781, MW-A-W-150603, 6/3/2015 10:20:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	95.6	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/09/15	06/09/15 10:33	AKM	GC-V9	1	BYF0753

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1513740-02 | **Client Sample Name:** 5781, MW-A-W-150603, 6/3/2015 10:20:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50		Luft/TPHd	ND		1
Tetracosane (Surrogate)	40.6	%	40 - 140 (LCL - UCL)		Luft/TPHd			1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/09/15	06/19/15 18:08	MBS	GC-5	1	BYF1897

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1513740-03 | **Client Sample Name:** 5781, MW-4-W-150603, 6/3/2015 12:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
t-Butyl alcohol	ND	ug/L	10		EPA-8260B	ND		1
Diisopropyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Ethanol	ND	ug/L	250		EPA-8260B	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	85.6	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.1	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	109	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/09/15	06/09/15 14:21	SE1	MS-V10	1	BYF0807

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1513740-03 | **Client Sample Name:** 5781, MW-4-W-150603, 6/3/2015 12:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	106	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/09/15	06/09/15 21:42	AKM	GC-V9	1	BYF0753

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1513740-03 | **Client Sample Name:** 5781, MW-4-W-150603, 6/3/2015 12:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50		Luft/TPHd	ND		1
Tetracosane (Surrogate)	43.6	%	40 - 140 (LCL - UCL)		Luft/TPHd			1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/09/15	06/19/15 18:20	MBS	GC-5	1	BYF1897

AECOM
2020 L St, Suite 400
Sacramento, CA 95811

Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1513740-04 | **Client Sample Name:** 5781, MW-5-W-150603, 6/3/2015 1:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	**39**	**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	**120**	**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
1,2-Dichloroethane-d4 (Surrogate)	94.4	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	106	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	127	%	80 - 120 (LCL - UCL)		EPA-8260B		S09	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/09/15	06/09/15 17:40	SE1	MS-V10	1	BYF0807

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Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1513740-04 | **Client Sample Name:** 5781, MW-5-W-150603, 6/3/2015 1:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	**5100**	**ug/L**	**500**		**EPA-8015B**	ND	**A01**	1
a,a,a-Trifluorotoluene (FID Surrogate)	105	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/08/15	06/09/15 04:26	AKM	GC-V9	10	BYF0597

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Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1513740-04 | **Client Sample Name:** 5781, MW-5-W-150603, 6/3/2015 1:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	**760**	**ug/L**	**50**		**Luft/TPHd**	ND	**A52**	1
Tetracosane (Surrogate)	50.7	%	40 - 140 (LCL - UCL)		Luft/TPHd			1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/09/15	06/19/15 18:34	MBS	GC-5	1	BYF1897

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Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1513740-05 | **Client Sample Name:** 5781, MW-6-W-150603, 6/3/2015 12:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
t-Butyl alcohol	ND	ug/L	10		EPA-8260B	ND		1
Diisopropyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Ethanol	ND	ug/L	250		EPA-8260B	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	90.0	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	97.6	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	106	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/09/15	06/09/15 14:39	SE1	MS-V10	1	BYF0807

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Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1513740-05 | **Client Sample Name:** 5781, MW-6-W-150603, 6/3/2015 12:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	99.4	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/09/15	06/09/15 22:22	AKM	GC-V9	1	BYF0753

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Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1513740-05 | **Client Sample Name:** 5781, MW-6-W-150603, 6/3/2015 12:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50		Luft/TPHd	ND		1
Tetracosane (Surrogate)	34.3	%	40 - 140 (LCL - UCL)		Luft/TPHd		S09	1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/09/15	06/19/15 18:46	MBS	GC-5	1	BYF1897

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Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1513740-06 | **Client Sample Name:** 5781, MW-7-W-150603, 6/3/2015 10:35:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
t-Butyl alcohol	ND	ug/L	10		EPA-8260B	ND		1
Diisopropyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Ethanol	ND	ug/L	250		EPA-8260B	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	88.6	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	106	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/09/15	06/09/15 14:57	SE1	MS-V10	1	BYF0807

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Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1513740-06 | **Client Sample Name:** 5781, MW-7-W-150603, 6/3/2015 10:35:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	107	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/09/15	06/09/15 22:02	AKM	GC-V9	1	BYF0753

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Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1513740-06 | **Client Sample Name:** 5781, MW-7-W-150603, 6/3/2015 10:35:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50		Luft/TPHd	ND		1
Tetracosane (Surrogate)	56.0	%	40 - 140 (LCL - UCL)		Luft/TPHd			1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/09/15	06/19/15 18:59	MBS	GC-5	1	BYF1897

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Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1513740-07 | **Client Sample Name:** 5781, MW-8-W-150603, 6/3/2015 11:25:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
t-Butyl alcohol	ND	ug/L	10		EPA-8260B	ND		1
Diisopropyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Ethanol	ND	ug/L	250		EPA-8260B	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	88.5	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	103	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/09/15	06/09/15 15:16	SE1	MS-V10	1	BYF0807

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Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1513740-07 | **Client Sample Name:** 5781, MW-8-W-150603, 6/3/2015 11:25:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	97.2	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/08/15	06/09/15 02:25	AKM	GC-V9	1	BYF0597

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Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1513740-07 | **Client Sample Name:** 5781, MW-8-W-150603, 6/3/2015 11:25:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50		Luft/TPHd	ND		1
Tetracosane (Surrogate)	61.2	%	40 - 140 (LCL - UCL)		Luft/TPHd			1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/09/15	06/19/15 19:12	MBS	GC-5	1	BYF1897

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Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1513740-08 | **Client Sample Name:** 5781, MW-9-W-150603, 6/3/2015 11:40:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dibromoethane	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane	ND	ug/L	0.50		EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50		EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Toluene	ND	ug/L	0.50		EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0		EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
t-Butyl alcohol	ND	ug/L	10		EPA-8260B	ND		1
Diisopropyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
Ethanol	ND	ug/L	250		EPA-8260B	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50		EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	90.2	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.6	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	105	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	06/09/15	06/09/15 15:34	SE1	MS-V10	1	BYF1006

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Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1513740-08 | **Client Sample Name:** 5781, MW-9-W-150603, 6/3/2015 11:40:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50		EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	102	%	70 - 130 (LCL - UCL)		EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/08/15	06/09/15 02:46	AKM	GC-V9	1	BYF0597

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Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID: 1513740-08 | **Client Sample Name:** 5781, MW-9-W-150603, 6/3/2015 11:40:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50		Luft/TPHd	ND		1
Tetracosane (Surrogate)	45.5	%	40 - 140 (LCL - UCL)		Luft/TPHd			1
Capric acid (Reverse Surrogate)	0	%	0 - 1 (LCL - UCL)		Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/09/15	06/19/15 19:25	MBS	GC-5	1	BYF1897

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Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYF0807						
Benzene	BYF0807-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BYF0807-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BYF0807-BLK1	ND	ug/L	0.50		
Ethylbenzene	BYF0807-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BYF0807-BLK1	ND	ug/L	0.50		
Toluene	BYF0807-BLK1	ND	ug/L	0.50		
Total Xylenes	BYF0807-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BYF0807-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BYF0807-BLK1	ND	ug/L	10		
Diisopropyl ether	BYF0807-BLK1	ND	ug/L	0.50		
Ethanol	BYF0807-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BYF0807-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane-d4 (Surrogate)	**BYF0807-BLK1**	**94.1**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BYF0807-BLK1**	**101**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BYF0807-BLK1**	**90.2**	%	**80 - 120 (LCL - UCL)**		
QC Batch ID: BYF1006						
Benzene	BYF1006-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BYF1006-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BYF1006-BLK1	ND	ug/L	0.50		
Ethylbenzene	BYF1006-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BYF1006-BLK1	ND	ug/L	0.50		
Toluene	BYF1006-BLK1	ND	ug/L	0.50		
Total Xylenes	BYF1006-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BYF1006-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BYF1006-BLK1	ND	ug/L	10		
Diisopropyl ether	BYF1006-BLK1	ND	ug/L	0.50		
Ethanol	BYF1006-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BYF1006-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane-d4 (Surrogate)	**BYF1006-BLK1**	**93.0**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BYF1006-BLK1**	**99.1**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BYF1006-BLK1**	**90.2**	%	**80 - 120 (LCL - UCL)**		
QC Batch ID: BYF1014						
Benzene	BYF1014-BLK1	ND	ug/L	0.50		

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Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYF1014						
1,2-Dibromoethane	BYF1014-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BYF1014-BLK1	ND	ug/L	0.50		
Ethylbenzene	BYF1014-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BYF1014-BLK1	ND	ug/L	0.50		
Toluene	BYF1014-BLK1	ND	ug/L	0.50		
Total Xylenes	BYF1014-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BYF1014-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BYF1014-BLK1	ND	ug/L	10		
Diisopropyl ether	BYF1014-BLK1	ND	ug/L	0.50		
Ethanol	BYF1014-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BYF1014-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane-d4 (Surrogate)	**BYF1014-BLK1**	**90.2**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BYF1014-BLK1**	**99.3**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BYF1014-BLK1**	**103**	%	**80 - 120 (LCL - UCL)**		

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Reported: 06/22/2015 8:43
Project: 5781
Project Number: 351640
Project Manager: Jim Harms

Volatile Organic Analysis (EPA Method 8260B)

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: BYF0807										
Benzene	BYF0807-BS1	LCS	22.700	25.000	ug/L	90.8		70 - 130		
Toluene	BYF0807-BS1	LCS	24.680	25.000	ug/L	98.7		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BYF0807-BS1	LCS	9.6000	10.000	ug/L	96.0		75 - 125		
Toluene-d8 (Surrogate)	BYF0807-BS1	LCS	9.8900	10.000	ug/L	98.9		80 - 120		
4-Bromofluorobenzene (Surrogate)	BYF0807-BS1	LCS	8.9300	10.000	ug/L	89.3		80 - 120		
QC Batch ID: BYF1006										
Benzene	BYF1006-BS1	LCS	20.640	25.000	ug/L	82.6		70 - 130		
Toluene	BYF1006-BS1	LCS	22.710	25.000	ug/L	90.8		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BYF1006-BS1	LCS	9.1100	10.000	ug/L	91.1		75 - 125		
Toluene-d8 (Surrogate)	BYF1006-BS1	LCS	9.6600	10.000	ug/L	96.6		80 - 120		
4-Bromofluorobenzene (Surrogate)	BYF1006-BS1	LCS	9.4800	10.000	ug/L	94.8		80 - 120		
QC Batch ID: BYF1014										
Benzene	BYF1014-BS1	LCS	22.070	25.000	ug/L	88.3		70 - 130		
Toluene	BYF1014-BS1	LCS	23.480	25.000	ug/L	93.9		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BYF1014-BS1	LCS	9.1200	10.000	ug/L	91.2		75 - 125		
Toluene-d8 (Surrogate)	BYF1014-BS1	LCS	9.7200	10.000	ug/L	97.2		80 - 120		
4-Bromofluorobenzene (Surrogate)	BYF1014-BS1	LCS	10.710	10.000	ug/L	107		80 - 120		

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Project Number: 351640
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Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYF0807	Used client sample: N										
Benzene	MS	1513811-05	ND	22.320	25.000	ug/L		89.3		70 - 130	
	MSD	1513811-05	ND	22.030	25.000	ug/L	1.3	88.1	20	70 - 130	
Toluene	MS	1513811-05	ND	23.620	25.000	ug/L		94.5		70 - 130	
	MSD	1513811-05	ND	23.380	25.000	ug/L	1.0	93.5	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1513811-05	ND	9.6400	10.000	ug/L		96.4		75 - 125	
	MSD	1513811-05	ND	9.5500	10.000	ug/L	0.9	95.5		75 - 125	
Toluene-d8 (Surrogate)	MS	1513811-05	ND	9.6600	10.000	ug/L		96.6		80 - 120	
	MSD	1513811-05	ND	9.6700	10.000	ug/L	0.1	96.7		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1513811-05	ND	9.3000	10.000	ug/L		93.0		80 - 120	
	MSD	1513811-05	ND	9.2300	10.000	ug/L	0.8	92.3		80 - 120	
QC Batch ID: BYF1006	Used client sample: N										
Benzene	MS	1513811-09	ND	21.880	25.000	ug/L		87.5		70 - 130	
	MSD	1513811-09	ND	21.540	25.000	ug/L	1.6	86.2	20	70 - 130	
Toluene	MS	1513811-09	ND	23.620	25.000	ug/L		94.5		70 - 130	
	MSD	1513811-09	ND	23.580	25.000	ug/L	0.2	94.3	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1513811-09	ND	9.4400	10.000	ug/L		94.4		75 - 125	
	MSD	1513811-09	ND	9.1900	10.000	ug/L	2.7	91.9		75 - 125	
Toluene-d8 (Surrogate)	MS	1513811-09	ND	9.6900	10.000	ug/L		96.9		80 - 120	
	MSD	1513811-09	ND	9.6900	10.000	ug/L	0	96.9		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1513811-09	ND	9.5500	10.000	ug/L		95.5		80 - 120	
	MSD	1513811-09	ND	9.4700	10.000	ug/L	0.8	94.7		80 - 120	
QC Batch ID: BYF1014	Used client sample: Y - Description: MW-A-W-150603, 06/03/2015 10:20										
Benzene	MS	1513740-02	ND	21.010	25.000	ug/L		84.0		70 - 130	
	MSD	1513740-02	ND	21.940	25.000	ug/L	4.3	87.8	20	70 - 130	
Toluene	MS	1513740-02	ND	23.110	25.000	ug/L		92.4		70 - 130	
	MSD	1513740-02	ND	22.970	25.000	ug/L	0.6	91.9	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1513740-02	ND	9.0700	10.000	ug/L		90.7		75 - 125	
	MSD	1513740-02	ND	9.3000	10.000	ug/L	2.5	93.0		75 - 125	
Toluene-d8 (Surrogate)	MS	1513740-02	ND	9.8000	10.000	ug/L		98.0		80 - 120	
	MSD	1513740-02	ND	9.6400	10.000	ug/L	1.6	96.4		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1513740-02	ND	11.100	10.000	ug/L		111		80 - 120	
	MSD	1513740-02	ND	10.900	10.000	ug/L	1.8	109		80 - 120	

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Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYF0597						
Gasoline Range Organics (C4 - C12)	BYF0597-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	**BYF0597-BLK1**	**103**	%	**70 - 130 (LCL - UCL)**		
QC Batch ID: BYF0753						
Gasoline Range Organics (C4 - C12)	BYF0753-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	**BYF0753-BLK1**	**94.3**	%	**70 - 130 (LCL - UCL)**		

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Purgeable Aromatics and 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: BYF0597										
Gasoline Range Organics (C4 - C12)	BYF0597-BS1	LCS	907.45	1000.0	ug/L	90.7		85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BYF0597-BS1	LCS	34.961	40.000	ug/L	87.4		70 - 130		
QC Batch ID: BYF0753										
Gasoline Range Organics (C4 - C12)	BYF0753-BS1	LCS	974.33	1000.0	ug/L	97.4		85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BYF0753-BS1	LCS	44.781	40.000	ug/L	112		70 - 130		

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Purgeable Aromatics and 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: BYF0597	Used client sample: N										
Gasoline Range Organics (C4 - C12)	MS	1511019-63	ND	1040.0	1000.0	ug/L		104		70 - 130	
	MSD	1511019-63	ND	941.80	1000.0	ug/L	9.9	94.2	20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1511019-63	ND	40.311	40.000	ug/L		101		70 - 130	
	MSD	1511019-63	ND	41.190	40.000	ug/L	2.2	103		70 - 130	
QC Batch ID: BYF0753	Used client sample: N										
Gasoline Range Organics (C4 - C12)	MS	1511019-65	ND	993.55	1000.0	ug/L		99.4		70 - 130	
	MSD	1511019-65	ND	1054.1	1000.0	ug/L	5.9	105	20	70 - 130	
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1511019-65	ND	37.805	40.000	ug/L		94.5		70 - 130	
	MSD	1511019-65	ND	39.206	40.000	ug/L	3.6	98.0		70 - 130	

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Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYF1897						
Diesel Range Organics (C12 - C24)	BYF1897-BLK1	ND	ug/L	50		
Tetracosane (Surrogate)	**BYF1897-BLK1**	**71.1**	%	**40 - 140 (LCL - UCL)**		
Capric acid (Reverse Surrogate)	BYF1897-BLK1	0	%	0 - 1 (LCL - UCL)		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

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: BYF1897										
Diesel Range Organics (C12 - C24)	BYF1897-BS1	LCS	279.38	500.00	ug/L	55.9		50 - 140		
Tetracosane (Surrogate)	BYF1897-BS1	LCS	10.347	20.000	ug/L	51.7		40 - 140		
Capric acid (Reverse Surrogate)	BYF1897-BS1	LCS	ND	100.00	ug/L	0		0 - 1		

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Total Petroleum Hydrocarbons (Silica Gel Treated)

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: BYF1897	Used client sample: N										
Diesel Range Organics (C12 - C24)	MS	**1506890-47**	**ND**	**242.09**	**500.00**	**ug/L**		**48.4**		**50 - 140**	**Q03**
	MSD	**1506890-47**	**ND**	**268.14**	**500.00**	**ug/L**	**10.2**	**53.6**	**30**	**50 - 140**	
Tetracosane (Surrogate)	MS	1506890-47	ND	8.8300	20.000	ug/L		44.2		40 - 140	
	MSD	1506890-47	ND	9.7640	20.000	ug/L	10.0	48.8		40 - 140	
Capric acid (Reverse Surrogate)	MS	1506890-47	ND	ND	100.00	ug/L		0		0 - 1	
	MSD	1506890-47	ND	ND	100.00	ug/L		0		0 - 1	

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Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A01	Detection and quantitation limits are raised due to sample dilution.
A52	Chromatogram not typical of diesel.
Q03	Matrix spike recovery(s) is(are) not within the control limits.
S09	The surrogate recovery on the sample for this compound was not within the control limits.