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By Alameda County Environmental Health at 2:02 pm, May 08, 2014



**Alexis Fischer**  
Project Manager  
Marketing Business Unit

**Chevron Environmental  
Management Company**  
6101 Bollinger Canyon Road  
San Ramon, CA 94583  
Tel (925) 790-6441  
afischer@chevron.com

Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Re: Chevron Service Station No. 91851  
451 Hegenberger Drive  
Oakland, CA

I have reviewed the attached report titled *First Semi-Annual 2014 Groundwater Monitoring and Sampling Report*.

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 Conestoga-Rovers & Associates, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

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

Sincerely,

A handwritten signature in blue ink that reads "Alexis Fischer".

Alexis Fischer  
Project Manager

Attachment: *First Semi-Annual 2014 Groundwater Monitoring and Sampling Report*



**CONESTOGA-ROVERS  
& ASSOCIATES**

5900 Hollis Street, Suite A  
Emeryville, California 94608  
Telephone: (510) 420-0700 Fax: (510) 420-9170  
<http://www.craworld.com>

May 6, 2014

Reference No. 311976

Mr. Mark Detterman  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: First Semi-Annual 2014  
Groundwater Monitoring and Sampling Report  
Chevron Service Station 91851  
451 Hegenberger Road  
Oakland, California  
Fuel Leak Case RO0000464

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Dear Mr. Detterman:

Conestoga-Rovers & Associates (CRA) is submitting this *First Semi-Annual 2014 Groundwater Monitoring and Sampling Report* for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company. Groundwater monitoring and sampling was performed by Blaine Tech Services (Blaine Tech) of San Jose, California. Blaine Tech's *First Quarter Monitoring* report is included as Attachment A. Current and historical groundwater monitoring and sampling data are presented in Table 1. Eurofins Lancaster Laboratory Environmental, LLCs' *Analytical Results* report is included as Attachment B.

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Equal  
Employment Opportunity  
Employer

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## FIGURES



**CONESTOGA-ROVERS  
& ASSOCIATES**

May 6, 2014

Reference No. 311976

- 2 -

Please contact Nathan Lee at (510) 420-3333 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

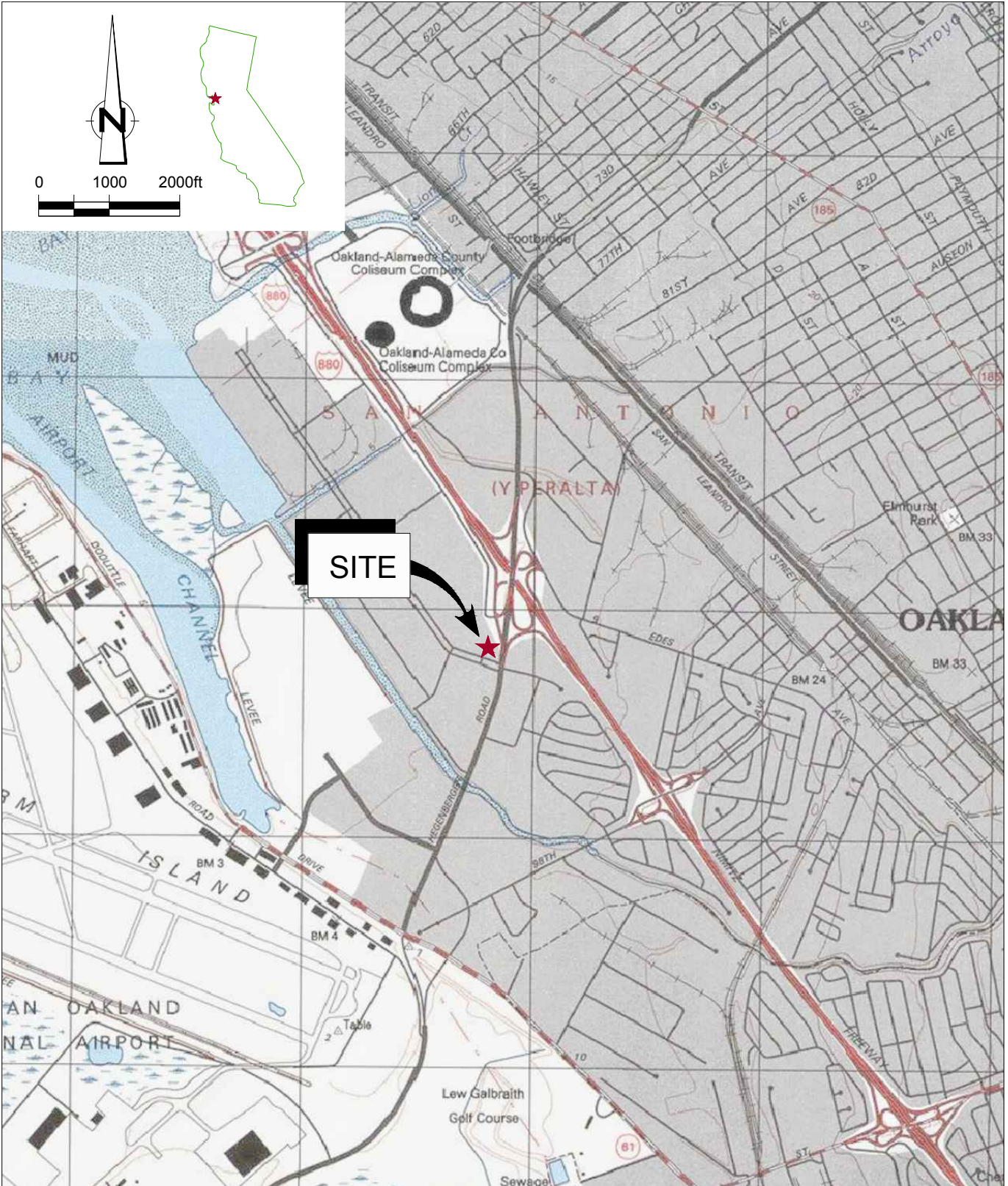


Brandon S. Wilken, PG 7564

NL/aa/24  
Encl.

Figure 1	Vicinity Map
Figure 2	Groundwater Elevation Contour and Hydrocarbon Concentration Map
Table 1	Groundwater Monitoring and Sampling Data
Attachment A	Monitoring Data Package
Attachment B	Laboratory Analytical Report

cc: Ms. Alexis Fischer, Chevron (*electronic copy*)  
Navdeep Singh Grewal, Property Owner



SOURCE: USGS QUADRANGLE MAP;  
 EAST OAKLAND, CALIFORNIA; DATE: 1997  
 SAN LEANDRO, CALIFORNIA; DATE: 1993

**Figure 1**  
**VICINITY MAP**  
**CHEVRON SERVICE STATION 91851**  
**451 HEGENBERGER ROAD**  
*Oakland, California*



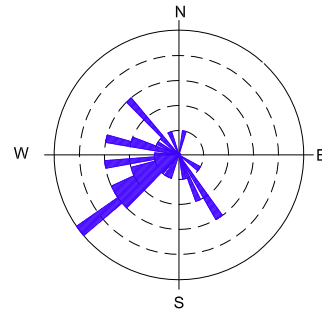


**LEGEND**

- MONITORING WELL LOCATION
- ⦿ DESTROYED MONITORING WELL LOCATION

<b>MW-1</b>	WELL DESIGNATION
<b>ELEV.</b>	GROUNDWATER ELEVATION (MSL)
<50	TPHmo CONCENTRATION (µg/L)
<50	TPHd CONCENTRATION (µg/L)
<0.50	TPHg CONCENTRATION (µg/L)
<0.50	BENZENE CONCENTRATION (µg/L)
<10	MTBE CONCENTRATION (µg/L)

- NA NOT AVAILABLE; WELL INACCESSIBLE
- NS NOT SAMPLED



HISTORICAL GROUNDWATER FLOW DIRECTION  
1995 - 1Q 2013

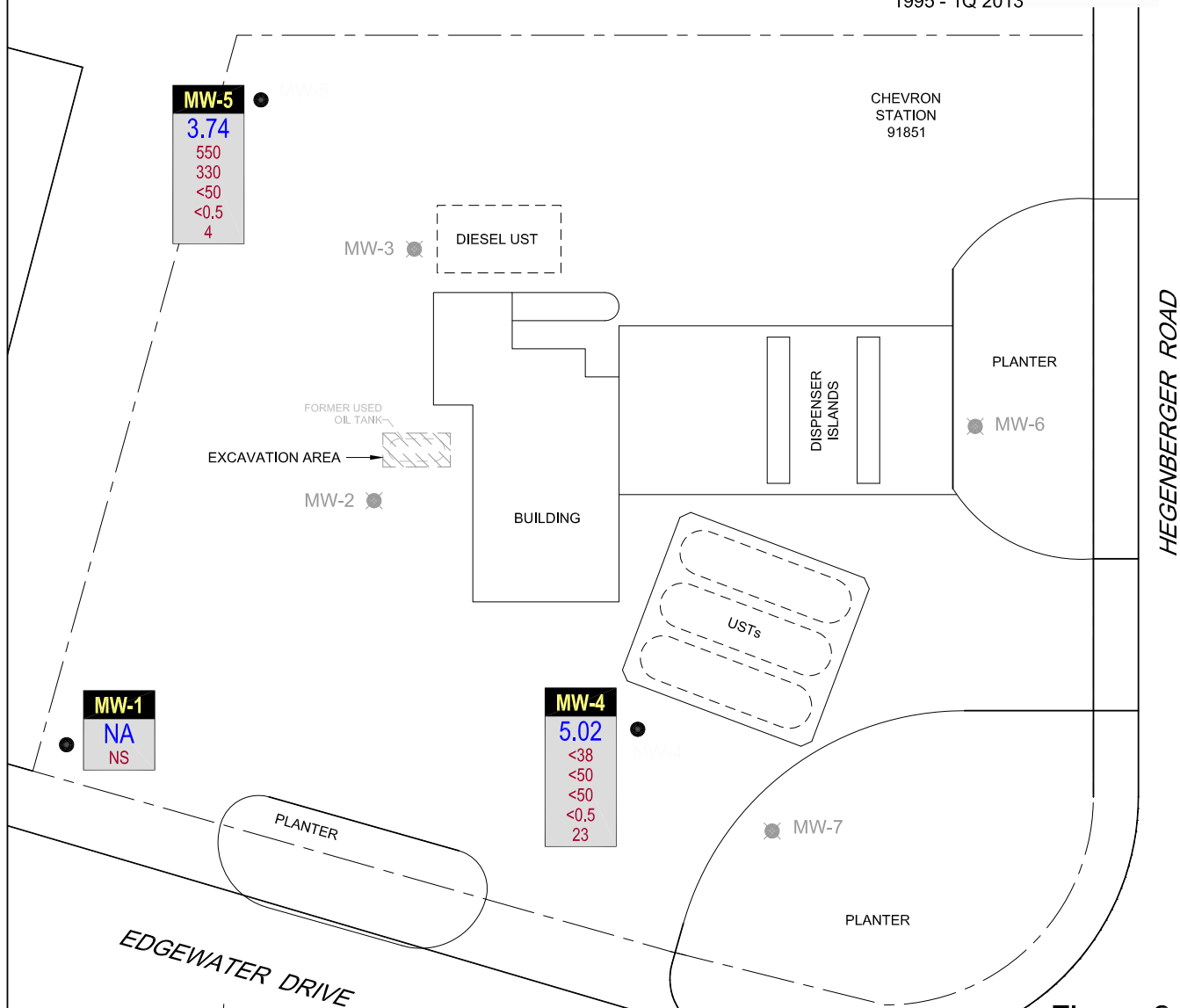
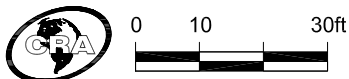


Figure 2

GROUNDWATER ELEVATION AND  
HYDROCARBON CONCENTRATION MAP  
CHEVRON SERVICE STATION 91851  
451 HEGENBERGER ROAD  
Oakland, California  
March 18, 2014



## TABLE

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENBERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCs					ADDITIONAL VOCs								
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	FAAME			
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1	10/17/1995	2.61	4.12	-1.51	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
MW-1	03/29/1996	2.61	3.33	-0.72	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	9.5	-	-	-	-	-	-	-	-	-
MW-1	06/26/1996	2.61	3.84	-1.23	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	46	-	-	-	-	-	-	-	-	-
MW-1	09/25/1996	2.61	4.02	-1.41	0.00	0.00	-	-	-	-	<250	<2.5	<2.5	<2.5	<2.5	940	-	-	-	-	-	-	-	-	-
MW-1	12/17/1996	2.61	3.57	-0.96	0.00	0.00	-	-	-	-	<50	0.9	<0.5	<0.5	<0.5	260	-	-	-	-	-	-	-	-	-
MW-1	03/20/1997	2.61	4.15	-1.54	0.00	0.00	-	-	-	-	<50	<2.0	<2.0	<2.0	<2.0	76	-	-	-	-	-	-	-	-	-
MW-1	06/20/1997	2.61	4.33	-1.72	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	64	-	-	-	-	-	-	-	-	-
MW-1	09/09/1997	2.61	4.35	-1.74	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	110	-	-	-	-	-	-	-	-	-
MW-1	12/12/1997	2.61	3.00	-0.39	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	27	-	-	-	-	-	-	-	-	-
MW-1	02/19/1998	2.61	1.83	0.78	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	14	-	-	-	-	-	-	-	-	-
MW-1	06/23/1998	2.61	3.34	-0.73	0.00	0.00	-	-	-	-	210	<0.5	<0.5	<0.5	<0.5	3,400	-	<50,000	<10,000	<200	<200	<200	<200	<200	<200
MW-1	08/31/1998	2.61	3.49	-0.88	0.00	0.00	-	-	-	-	1,400	630	<5.0	<5.0	<5.0	16,000	-	-	-	-	-	-	-	-	-
MW-1	12/29/1998	2.61	3.83	-1.22	0.00	0.00	-	-	-	-	<500	<5.0	<5.0	<5.0	<5.0	1,090	-	-	-	-	-	-	-	-	-
MW-1	03/11/1999	2.61	3.04	-0.43	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	33.9	-	-	-	-	-	-	-	-	-
MW-1	06/24/1999	2.61	3.38	-0.77	0.00	0.00	-	-	-	-	<500	65.7	<5.0	<5.0	<5.0	1,160	-	<10,000	<2,000	<20	<20	<20	<20	258	
MW-1	09/29/1999	2.61	3.62	-1.01	0.00	0.00	-	-	-	-	81.7	<0.5	<0.5	<0.5	<0.5	1,130	-	-	-	-	-	-	-	-	-
MW-1	12/08/1999	2.61	4.07	-1.46	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	233	-	-	-	-	-	-	-	-	-
MW-1	03/01/2000	2.61	1.95	0.66	0.00	0.00	-	-	-	-	100	<0.5	<0.5	<0.5	<0.5	37.9	-	-	-	-	-	-	-	-	-
MW-1	06/19/2000	2.61	3.41	-0.80	0.00	0.00	-	-	-	-	<50	3.8	<0.50	<0.50	<0.50	88	91 <sup>2</sup>	<500	<100	<2.0	<2.0	<2.0	<2.0	11	
MW-1	09/30/2000	2.61	3.84	-1.23	0.00	0.00	-	-	-	-	<130	<1.3	<1.3	<1.3	<1.3	460	530 <sup>2</sup>	-	-	-	-	-	-	-	-
MW-1	10/05/2000	2.61	3.93	-1.32	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	12/08/2000	8.61	4.20	4.41	0.00	0.00	-	-	-	-	<50.0	<0.500	<0.500	<0.500	<0.500	58.7	-	-	-	-	-	-	-	-	-
MW-1	03/03/2001 <sup>11</sup>	8.61	2.31	6.30	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	8.9	-	-	-	-	-	-	-	-	-
MW-1	06/19/2001	8.61	3.34	5.27	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	51	-	-	-	-	-	-	-	-	-
MW-1	09/05/2001	8.61	3.77	4.84	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	180	-	-	-	-	-	-	-	-	-
MW-1	12/10/2001	8.61	2.47	6.14	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	21	-	-	-	-	-	-	-	-	-
MW-1	03/04/2002	8.61	3.13	5.48	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	47	-	-	-	-	-	-	-	-	-
MW-1	06/03/2002	8.61	5.71	2.90	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	31	-	-	-	-	-	-	-	-	-
MW-1	09/14/2002	8.61	3.75	4.86	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	140	-	-	-	-	-	-	-	-	-
MW-1	12/13/2002	8.61	3.29	5.32	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-	-	-



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GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENBERGER ROAD  
 OAKLAND, CALIFORNIA

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							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	FAHE			
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1	03/14/2003	8.61	3.07	5.54	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	35	-	-	-	-	-	-	-	-	-
MW-1	06/09/2003 <sup>13</sup>	8.61	3.52	5.09	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	69	-	-	-	-	-	-	-	-
MW-1	09/03/2003 <sup>13</sup>	8.61	4.12	4.49	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	1	<50	-	-	-	-	-	-	-
MW-1	12/01/2003 <sup>13</sup>	8.61	3.27	5.34	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	100	<50	-	-	-	-	-	-	-
MW-1	03/01/2004 <sup>13</sup>	8.61	2.06	6.55	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	26	<50	-	-	-	-	-	-	-
MW-1	06/02/2004 <sup>13</sup>	8.61	3.30	5.31	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	93	<50	-	-	-	-	-	-	-
MW-1	09/03/2004 <sup>13</sup>	8.61	4.14	4.47	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	140	<50	-	-	-	-	-	-	-
MW-1	12/20/2004 <sup>13</sup>	8.61	3.62	4.99	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	37	<50	-	-	-	-	-	-	-
MW-1	03/12/2005 <sup>13</sup>	8.61	3.04	5.57	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	130	<50	-	-	-	-	-	-	-
MW-1	06/28/2005 <sup>13</sup>	8.61	3.28	5.33	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	93	<50	-	-	-	-	-	-	-
MW-1	09/01/2005 <sup>13</sup>	8.61	3.58	5.03	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	59	<50	-	-	-	-	-	-	-
MW-1	12/01/2005 <sup>13</sup>	8.61	3.05	5.56	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	62	<50	-	-	-	-	-	-	-
MW-1	03/04/2006 <sup>13</sup>	8.61	3.31	5.30	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	88	<50	-	-	-	-	-	-	-
MW-1	06/01/2006 <sup>13</sup>	8.61	3.44	5.17	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	36	<50	-	-	-	-	-	-	-
MW-1	09/01/2006 <sup>13</sup>	8.61	2.99	5.62	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	18	<50	-	-	-	-	-	-	-
MW-1	12/15/2006 <sup>13</sup>	8.61	2.91	5.70	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	8	<50	-	-	-	-	-	-	-
MW-1	03/15/2007 <sup>13</sup>	8.61	3.43	5.18	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	17	<50	-	-	-	-	-	-	-
MW-1	06/15/2007 <sup>13</sup>	8.61	3.67	4.94	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	8	<50	-	-	-	-	-	-	-
MW-1	09/06/2007 <sup>13</sup>	8.61	3.42	5.19	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	3	<50	-	-	-	-	-	-	-
MW-1	12/07/2007 <sup>13</sup>	8.61	3.31	5.30	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	7	<50	-	-	-	-	-	-	-
MW-1	03/07/2008 <sup>13</sup>	8.61	3.45	5.16	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	9	<50	-	-	-	-	-	-	-
MW-1	06/24/2008 <sup>13</sup>	8.61	3.76	4.85	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	3	<50	-	-	-	-	-	-	-
MW-1	09/11/2008 <sup>13</sup>	8.61	4.50	4.11	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	9	-	-	-	-	-	-	-	-
MW-1	12/19/2008 <sup>13</sup>	8.61	3.73	4.88	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	6	<50	-	-	-	-	-	-	-
MW-1	06/01/2009	8.61	4.77	3.84	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	3	<50	-	-	-	-	-	-	-
MW-1	09/30/2009	8.61	4.81	3.80	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	1	<50	-	-	-	-	-	-	-
MW-1	12/10/2009	8.61	3.95	4.66	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	4	<50	-	-	-	-	-	-	-
MW-1	12/11/2009	8.61	3.81	4.80	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	03/08/2010	8.61	2.90	5.71	0.00	0.00	-	-	-	-	<500	<0.5	<0.5	<0.5	<0.5	-	4	<50	-	-	-	-	-	-	-
MW-1	06/06/2010	8.61	3.40	5.21	0.00	0.00	280	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	2	<50	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENBERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCS						ADDITIONAL VOCS							
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	AME			
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1	09/02/2010	8.61	4.02	4.59	0.00	0.00	320	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	2	<50	-	-	-	-	-	-	-
MW-1	12/09/2010	8.61	3.23	5.38	0.00	0.00	320	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	3	<50	-	-	-	-	-	-	-
MW-1	03/23/2011	8.61	2.33	6.28	0.00	0.00	1,100	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	3	<50	-	-	-	-	-	-	-
MW-1	06/24/2011	8.61	3.06	5.55	0.00	0.00	-	85 J	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	1	<50	-	-	-	-	-	-	-
MW-1	09/30/2011	8.61	3.75	4.86	0.00	0.00	-	<39	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	1 J	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
MW-1	03/16/2012	8.61	3.32	5.29	0.00	0.00	-	<41	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	1	<50	-	-	-	-	-	-	-
MW-1	09/13/2012	8.61	3.52	5.09	0.00	0.00	-	<38	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	2	<50	-	-	-	-	-	-	-
MW-1	02/28/2013	8.61	3.45	5.16	0.00	0.00	-	<38	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	2	<50	-	-	-	-	-	-	-
MW-1	09/21/2013 <sup>24</sup>	8.61	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-1</b>	<b>03/18/2014<sup>24</sup></b>	<b>8.61</b>	<b>-</b>	<b>-</b>	<b>0.00</b>	<b>0.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
MW-2	10/17/1995 <sup>3</sup>	3.51	5.33	-1.82	0.00	0.00	-	-	1,600 <sup>4</sup>	-	170	3.5	<0.5	1.0	6.1	-	-	-	-	-	-	-	-	-	-
MW-2	03/29/1996	3.51	3.95	-0.44	0.00	0.00	-	-	3,000 <sup>4</sup>	-	89	11 / 4.7	<0.5	0.64	2.5 / 0.74	21	-	-	-	-	-	-	-	-	-
MW-2	06/26/1996	3.51	4.60	-1.09	0.00	0.00	-	-	2,000 <sup>4</sup>	-	80	8.7 / 11	<0.5	1.2	<2.0 / 1.3	31	-	-	-	-	-	-	-	-	-
MW-2	09/25/1996	3.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	12/17/1996	3.51	3.92	-0.41	0.00	0.00	-	-	2,400 <sup>4</sup>	-	110	<0.5 / 10	<0.5	0.75	<2.0 / 2.1	27	-	-	-	-	-	-	-	-	-
MW-2	03/20/1997	3.51	4.83	-1.32	0.00	0.00	-	-	3,400 <sup>4</sup>	-	140	8.2	<2.0	<2.0	<2.0	58	-	-	-	-	-	-	-	-	-
MW-2	06/20/1997	3.51	5.04	-1.53	0.00	0.00	-	-	1,600 <sup>4</sup>	-	62	7.7 / 7.2	<0.5	<0.5	<0.5 / <2.0	38	-	-	-	-	-	-	-	-	-
MW-2	09/09/1997	3.51	4.98	-1.47	0.00	0.00	-	-	82 <sup>4</sup>	-	190	9.4 / 11	<0.5	<0.5	<2.0 / 0.86	48	-	-	-	-	-	-	-	-	-
MW-2	12/12/1997	3.51	3.91	-0.40	0.00	0.00	-	-	8,500 <sup>4</sup>	-	180	<2.0 / 1.8	<0.5	<0.5	<2.0 / 3.2	34	-	-	-	-	-	-	-	-	-
MW-2	02/19/1998	3.51	2.96	0.55	0.00	0.00	-	-	3,800 <sup>4</sup>	-	<100	<3.3 / 1.8	<1.0	<1.0	<3.3 / <1.0	230	-	-	-	-	-	-	-	-	-
MW-2	06/23/1998	3.51	4.05	-0.54	0.00	0.00	-	-	-	-	60	<0.5	<0.5	<0.5	<0.5	55	-	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	
MW-2	08/31/1998	3.51	4.31	-0.80	0.00	0.00	-	-	-	-	61	2.2	<0.5	<0.5	1.1	53	-	-	-	-	-	-	-	-	-
MW-2	12/29/1998	3.51	4.63	-1.12	0.00	0.00	-	-	-	-	54	1.3	<0.5	<0.5	0.752	38.1	-	-	-	-	-	-	-	-	-
MW-2	03/11/1999	3.51	3.52	-0.01	0.00	0.00	-	-	-	-	648	2.9	<2.0	<2.0	<2.0	73.2	-	-	-	-	-	-	-	-	-
MW-2	06/24/1999	3.51	4.00	-0.49	0.00	0.00	-	-	-	-	264	0.58	<0.5	1.01	<0.5	44.1	-	<1,000	<200	<2.0	<2.0	<2.0	<2.0	<2.0	
MW-2	09/29/1999	3.51	4.44	-0.93	0.00	0.00	-	-	-	-	54.3	0.66	<0.5	<0.5	<0.5	35.7	-	-	-	-	-	-	-	-	
MW-2	12/08/1999	3.51	4.89	-1.38	0.00	0.00	-	-	-	-	<50	1.27	<0.5	<0.5	<0.5	56.9	-	-	-	-	-	-	-	-	
MW-2	03/01/2000	3.51	3.03	0.48	0.00	0.00	-	-	-	-	68	1.57	<0.5	<0.5	<0.5	110	-	-	-	-	-	-	-	-	
MW-2	06/19/2000	3.51	4.17	-0.66	0.00	0.00	-	-	-	-	58.00 <sup>1</sup>	1.5	<0.50	<0.50	<0.50	90	59 <sup>2</sup>	<500	<100	<2.0	<2.0	<2.0	4.0		

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENERBERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCS						ADDITIONAL VOCS									
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	FAAME					
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
MW-2	09/30/2000	3.51	4.66	-1.15	0.00	0.00	-	-	-	-	<50	<0.50	0.82	<0.50	1.1	48	50 <sup>2</sup>	-	-	-	-	-	-	-	-	-	-
MW-2	10/05/2000 <sup>8,9</sup>	3.51	4.71	-1.20	0.00	0.00	-	-	4,000 <sup>7</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	12/08/2000	9.52	4.97	4.55	0.00	0.00	-	-	-	-	<50.0	<0.500	<0.500	<0.500	<0.500	61.8	-	-	-	-	-	-	-	-	-	-	-
MW-2	03/03/2001 <sup>11</sup>	9.52	3.27	6.25	0.00	0.00	-	-	-	-	310 <sup>12</sup>	0.60	<0.50	<0.50	1.3	97	-	-	-	-	-	-	-	-	-	-	-
MW-2	06/19/2001	9.52	4.05	5.47	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	30	-	-	-	-	-	-	-	-	-	-	-
MW-2	09/05/2001	9.52	4.54	4.98	0.00	0.00	-	-	-	-	<50	<0.50	1.2	<0.50	<1.5	46	-	-	-	-	-	-	-	-	-	-	-
MW-2	12/10/2001	9.52	3.45	6.07	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	22	-	-	-	-	-	-	-	-	-	-	-
MW-2	03/04/2002	9.52	3.94	5.58	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	61	-	-	-	-	-	-	-	-	-	-	-
MW-2	06/03/2002	9.52	4.08	5.44	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	71	-	-	-	-	-	-	-	-	-	-	-
MW-2	09/14/2002	9.52	4.65	4.87	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	77	-	-	-	-	-	-	-	-	-	-	-
MW-2	12/13/2002	9.52	4.31	5.21	0.00	0.00	-	-	-	-	53	<0.50	<0.50	<0.50	<1.5	44	-	-	-	-	-	-	-	-	-	-	-
MW-2	03/14/2003	9.52	3.91	5.61	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	55	-	-	-	-	-	-	-	-	-	-	-
MW-2	06/09/2003 <sup>13</sup>	9.52	4.33	5.19	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	67	-	-	-	-	-	-	-	-	-	-
MW-2	09/03/2003 <sup>13</sup>	9.52	4.93	4.59	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	0.9	<50	-	-	-	-	-	-	-	-	-
MW-2	12/01/2003 <sup>13</sup>	9.52	4.15	5.37	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	72	<50	-	-	-	-	-	-	-	-	-
MW-2	03/01/2004 <sup>13</sup>	9.52	3.12	6.40	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	130	<50	-	-	-	-	-	-	-	-	-
MW-2	06/02/2004 <sup>13</sup>	9.52	4.21	5.31	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	46	<50	-	-	-	-	-	-	-	-	-
MW-2	09/03/2004 <sup>13</sup>	9.52	4.14	5.38	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	69	<50	-	-	-	-	-	-	-	-	-
MW-2	12/20/2004	9.52	4.60	4.96**	0.05	0.01 <sup>14</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	03/12/2005 <sup>13</sup>	9.52	3.90	5.62	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	57	<50	-	-	-	-	-	-	-	-	-
MW-2	06/28/2005 <sup>13</sup>	9.52	4.06	5.46	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	6	<50	-	-	-	-	-	-	-	-	-
MW-2	09/01/2005	9.52	4.52	5.03**	0.04	1.10 <sup>14</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	12/01/2005 <sup>13</sup>	9.52	4.01	5.51	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	3	<50	-	-	-	-	-	-	-	-	-
MW-2	03/04/2006 <sup>13</sup>	9.52	4.27	5.25	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	14	<50	-	-	-	-	-	-	-	-	-
MW-2	06/01/2006 <sup>13</sup>	9.52	4.40	5.12	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	35	<50	-	-	-	-	-	-	-	-	-
MW-2	09/01/2006 <sup>13</sup>	9.52	3.90	5.62	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	31	<50	-	-	-	-	-	-	-	-	-
MW-2	12/15/2006 <sup>13</sup>	9.52	3.88	5.64	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	25	<50	-	-	-	-	-	-	-	-	-
MW-2	03/15/2007 <sup>13</sup>	9.52	4.27	5.25	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	15	<50	-	-	-	-	-	-	-	-	-
MW-2	06/15/2007 <sup>16</sup>	9.52	4.49	5.03	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	09/06/2007 <sup>13</sup>	9.52	4.32	5.20	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	43	<50	-	-	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCs					ADDITIONAL VOCs						
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	AME	
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-2	12/07/2007 <sup>13</sup>	9.52	4.46	5.06	0.00	0.00	-	-	-	-	<250 <sup>17</sup>	<0.5	<0.5	<0.5	<0.5	-	28	<50	-	-	-	-	-
MW-2	03/07/2008 <sup>13</sup>	9.52	4.38	5.15**	0.01	0.01	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	19	<50	-	-	-	-	-
MW-2	06/24/2008	9.52	5.16	4.88**	0.65	0.73 <sup>14</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	09/11/2008	9.52	5.50	4.30**	0.35	0.13 <sup>14</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	12/19/2008	9.52	4.80	4.75**	0.04	0.50 <sup>18</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	06/01/2009	9.52	4.90	4.62	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	09/30/2009	9.52	4.82	4.70**	0.09	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	12/10/2009	9.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	12/11/2009	9.52	4.89	4.63**	0.10	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	03/08/2010	9.52	3.82	5.74**	0.05	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	06/06/2010	9.52	4.52	5.06**	0.07	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	09/02/2010 <sup>22</sup>	9.52	4.89	4.67**	0.05	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	12/09/2010 <sup>22</sup>	9.52	3.74	5.82**	0.05	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	03/23/2011 <sup>22</sup>	9.52	3.38	8.81**	0.04	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	06/24/2011 <sup>22</sup>	9.52	4.08	5.48**	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	09/30/2011 <sup>22</sup>	9.52	4.76	4.81**	0.06	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	03/16/2012 <sup>22</sup>	9.52	4.64	4.96**	0.10	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	09/13/2012 <sup>22</sup>	9.52	4.66	4.94**	0.10	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	02/28/2013 <sup>27</sup>										Monitoring well destroyed												
MW-3	10/17/1995 <sup>5</sup>	3.08	4.42	-1.34	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
MW-3	03/29/1996	3.08	3.00	0.08	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	26	-	-	-	-	-	-	-
MW-3	06/26/1996	3.08	3.60	-0.52	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	47	-	-	-	-	-	-	-
MW-3	09/25/1996	3.08	4.14	-1.06	0.00	0.00	-	-	-	-	<125	<1.2	<1.2	<1.2	<1.2	570	-	-	-	-	-	-	-
MW-3	12/17/1996	3.08	3.20	-0.12	0.00	0.00	-	-	-	-	<500	<5.0	<5.0	<5.0	<5.0	680	-	-	-	-	-	-	-
MW-3	03/20/1997	3.08	3.30	-0.22	0.00	0.00	-	-	-	-	<50	<5.7	<5.7	<5.7	<5.7	430	-	-	-	-	-	-	-
MW-3	06/20/1997	3.08	3.86	-0.78	0.00	0.00	-	-	-	-	<500	<5.0	<5.0	<5.0	<5.0	1,400	-	-	-	-	-	-	-
MW-3	09/09/1997	3.08	4.19	-1.11	0.00	0.00	-	-	-	-	76 <sup>4</sup>	22	<0.5	<0.5	<0.5	920	-	-	-	-	-	-	-
MW-3	12/12/1997	3.08	2.96	0.12	0.00	0.00	-	-	-	-	52	15	<0.5	<0.5	<0.5	710	-	-	-	-	-	-	-
MW-3	02/19/1998	3.08	2.22	0.86	0.00	0.00	-	-	-	-	<50	6.6	<0.5	<0.5	<0.5	380	-	-	-	-	-	-	-

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GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENBERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCS					ADDITIONAL VOCS					
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	AME
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-3	06/23/1998	3.08	3.25	-0.17	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	390	-	<5,000	<1,000	<20	<20	26
MW-3	08/31/1998	3.08	3.86	-0.78	0.00	0.00	-	-	-	-	<50	19	<0.5	<0.5	<0.5	830	-	-	-	-	-	-
MW-3	12/29/1998	3.08	3.53	-0.45	0.00	0.00	-	-	-	-	<250	<2.5	<2.5	<2.5	<2.5	416	-	-	-	-	-	-
MW-3	03/11/1999	3.08	3.35	-0.27	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	262	-	-	-	-	-	-
MW-3	06/24/1999	3.08	3.61	-0.53	0.00	0.00	-	-	-	-	<50	12.8	<0.5	<0.5	<0.5	620	-	<6,670	<1,330	<13.3	<13.3	<13.3
MW-3	09/29/1999	3.08	3.95	-0.87	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	2,840	-	-	-	-	-	-
MW-3	12/08/1999	3.08	3.54	-0.46	0.00	0.00	-	-	-	-	73.4	<0.5	<0.5	<0.5	<0.5	1,620	-	-	-	-	-	-
MW-3	03/01/2000	3.08	2.43	0.65	0.00	0.00	-	-	-	-	<200	<2.0	<2.0	<2.0	<2.0	1,880	-	-	-	-	-	-
MW-3	06/19/2000	3.08	3.38	-0.30	0.00	0.00	-	-	-	-	<250	20	<2.5	<2.5	<2.5	1,200	920 <sup>2</sup>	570	<100	<2.0	<2.0	65
MW-3	09/30/2000	3.08	4.00	-0.92	0.00	0.00	-	-	-	-	<250	<2.5	<2.5	<2.5	<2.5	730	2,100 <sup>2</sup>	-	-	-	-	-
MW-3	10/05/2000	3.08	4.02	-0.94	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-3	12/08/2000	9.08	3.70	5.38	0.00	0.00	-	-	-	-	<50.0	<0.500	<0.500	<0.500	<0.500	1,620	-	-	-	-	-	-
MW-3	03/03/2001 <sup>11</sup>	9.08	2.24	6.84	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	1,000	-	-	-	-	-	-
MW-3	06/19/2001	9.08	3.71	5.37	0.00	0.00	-	-	-	-	<120	4.8	<1.2	<1.2	<1.2	510	-	-	-	-	-	-
MW-3	09/05/2001	9.08	4.04	5.04	0.00	0.00	-	-	-	-	130	<0.50	<0.50	<0.50	<1.5	1,400	-	-	-	-	-	-
MW-3	12/10/2001	9.08	2.54	6.54	0.00	0.00	-	-	-	-	130	<0.50	<0.50	<0.50	<1.5	1,000	-	-	-	-	-	-
MW-3	03/04/2002	9.08	2.84	6.24	0.00	0.00	-	-	-	-	120	<0.50	<0.50	<0.50	<1.5	720	-	-	-	-	-	-
MW-3	06/03/2002	9.08	3.28	5.80	0.00	0.00	-	-	-	-	130	<0.50	<0.50	<0.50	<1.5	710	-	-	-	-	-	-
MW-3	09/14/2002	9.08	4.15	4.93	0.00	0.00	-	-	-	-	590	<20	<1.0	<1.0	<3.0	2,600	-	-	-	-	-	-
MW-3	12/13/2002	9.08	3.85	5.23	0.00	0.00	-	-	-	-	430	<0.50	<0.50	<0.50	<1.5	2,000	-	-	-	-	-	-
MW-3	03/14/2003	9.08	2.99	6.09	0.00	0.00	-	-	-	-	310	<0.50	<0.50	<0.50	<1.5	1,600	-	-	-	-	-	-
MW-3	06/09/2003 <sup>13</sup>	9.08	3.34	5.74	0.00	0.00	-	-	-	-	330	<0.5	<0.5	<0.5	<0.5	-	1,800	-	-	-	-	-
MW-3	09/03/2003 <sup>13</sup>	9.08	3.97	5.11	0.00	0.00	-	-	-	-	720	<3	<3	<3	<3	-	4,100	<250	-	-	-	-
MW-3	12/01/2003 <sup>13</sup>	9.08	3.76	5.32	0.00	0.00	-	-	-	-	520	<1	<1	<1	<1	-	2,400	<130	-	-	-	-
MW-3	03/01/2004 <sup>13</sup>	9.08	2.11	6.97	0.00	0.00	-	-	-	-	140	<0.5	<0.5	<0.5	<0.5	-	850	<50	-	-	-	-
MW-3	06/02/2004 <sup>13</sup>	9.08	3.65	5.43	0.00	0.00	-	-	-	-	220	<0.5	<0.5	<0.5	<0.5	-	1,500	<50	-	-	-	-
MW-3	09/03/2004 <sup>13</sup>	9.08	5.01	4.07	0.00	0.00	-	-	-	-	300	<1	<1	<1	<1	-	1,800	<100	-	-	-	-
MW-3	12/20/2004 <sup>13</sup>	9.08	4.85	4.23	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	86	<50	-	-	-	-
MW-3	03/12/2005 <sup>13</sup>	9.08	4.39	4.69	0.00	0.00	-	-	-	-	<50	0.6	<0.5	<0.5	<0.5	-	110	<50	-	-	-	-
MW-3	06/28/2005 <sup>13</sup>	9.08	4.56	4.52	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	23	<50	-	-	-	-



TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCS					ADDITIONAL VOCS								
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	FAME			
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
MW-4	03/29/1996	3.48	4.61	-1.13	0.00	0.00	-	-	-	-	<1,000	<10	<10	<10	<10	6,700	-	-	-	-	-	-	-	-	-
MW-4	06/26/1996	3.48	4.30	-0.82	0.00	0.00	-	-	-	-	<2,000	<20	<20	<20	<20	7,200	-	-	-	-	-	-	-	-	-
MW-4	09/25/1996	3.48	5.33	-1.85	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-	-
MW-4	12/17/1996	3.48	2.81	0.67	0.00	0.00	-	-	-	-	<2,000	120	<20	<20	<20	11,000	-	-	-	-	-	-	-	-	-
MW-4	03/20/1997	3.48	4.50	-1.02	0.00	0.00	-	-	-	-	250 <sup>4</sup>	<2.0	<2.0	<2.0	<2.0	10,000	8,600 <sup>6</sup>	-	-	-	-	-	-	-	-
MW-4	06/20/1997	3.48	5.68	-2.20	0.00	0.00	-	-	-	-	<2,500	<25	<25	<25	<25	9,300	-	-	-	-	-	-	-	-	-
MW-4	09/09/1997	3.48	5.50	-2.02	0.00	0.00	-	-	-	-	460 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	6,600	-	-	-	-	-	-	-	-	-
MW-4	12/12/1997	3.48	5.03	-1.55	0.00	0.00	-	-	-	-	430 <sup>4</sup>	120	<2.5	<2.5	<2.5	7,800	-	-	-	-	-	-	-	-	-
MW-4	02/19/1998	3.48	3.35	0.13	0.00	0.00	-	-	-	-	510 <sup>4</sup>	130	<0.5	<0.5	<0.5	6,600	-	-	-	-	-	-	-	-	-
MW-4	06/23/1998	3.48	4.98	-1.50	0.00	0.00	-	-	-	-	550 <sup>4</sup>	<0.5	<0.5	<0.5	<0.5	6,800	-	<50,000	<10,000	<200	<200	860	-	-	-
MW-4	08/31/1998	3.48	5.42	-1.94	0.00	0.00	-	-	-	-	<500	450	<5.0	<5.0	<5.0	14,000	-	-	-	-	-	-	-	-	-
MW-4	12/29/1998	3.48	5.06	-1.58	0.00	0.00	-	-	-	-	<5,000	<50	<50	<50	<50	16,100	-	-	-	-	-	-	-	-	-
MW-4	03/11/1999	3.48	3.78	-0.30	0.00	0.00	-	-	-	-	979	<5.0	<5.0	<5.0	<5.0	15,100	-	-	-	-	-	-	-	-	-
MW-4	06/24/1999	3.48	4.31	-0.83	0.00	0.00	-	-	-	-	<2,500	715	<25	<25	<25	12,400	-	<125,000	<25,000	<250	<250	2,600	-	-	-
MW-4	09/29/1999	3.48	5.58	-2.10	0.00	0.00	-	-	-	-	1,380	<5.0	<5.0	<5.0	<5.0	11,700	-	-	-	-	-	-	-	-	-
MW-4	12/08/1999	3.48	5.33	-1.85	0.00	0.00	-	-	-	-	318	<0.5	<0.5	<0.5	<0.5	11,100	-	-	-	-	-	-	-	-	-
MW-4	03/01/2000	3.48	5.20	-1.72	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	9,940	-	-	-	-	-	-	-	-	-
MW-4	06/19/2000	3.48	5.36	-1.88	0.00	0.00	-	-	-	-	<1,000	220	<10	<10	<10	7,300	9,500 <sup>2</sup>	<25,000	<5,000	<100	<100	1,100	-	-	-
MW-4	09/30/2000	3.48	3.77	-0.29	0.00	0.00	-	-	-	-	740 <sup>1</sup>	<2.5	<2.5	<2.5	<2.5	6,000	7,800 <sup>2</sup>	-	-	-	-	-	-	-	-
MW-4	10/05/2000	3.48	3.86	-0.38	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-4	12/08/2000	9.48	4.45	5.03	0.00	0.00	-	-	-	-	<50.0	<0.500	<0.500	<0.500	<0.500	6,230	-	-	-	-	-	-	-	-	-
MW-4	03/03/2001 <sup>11</sup>	9.48	3.83	5.65	0.00	0.00	-	-	-	-	<250	<2.5	<2.5	<2.5	<2.5	3,600	-	-	-	-	-	-	-	-	-
MW-4	06/19/2001	9.48	3.37	6.11	0.00	0.00	-	-	-	-	<500	140	<5.0	<5.0	<5.0	2,500	-	-	-	-	-	-	-	-	-
MW-4	09/05/2001	9.48	3.96	5.52	0.00	0.00	-	-	-	-	400	<0.50	<0.50	<0.50	<1.5	2,800	-	-	-	-	-	-	-	-	-
MW-4	12/10/2001	9.48	5.05	4.43	0.00	0.00	-	-	-	-	700	<0.50	<0.50	<0.50	<1.5	3,400	-	-	-	-	-	-	-	-	-
MW-4	03/04/2002	9.48	3.67	5.81	0.00	0.00	-	-	-	-	660	<0.50	<0.50	<0.50	<1.5	2,900	-	-	-	-	-	-	-	-	-
MW-4	06/03/2002	9.48	5.24	4.24	0.00	0.00	-	-	-	-	610	<0.50	<0.50	<0.50	<1.5	3,000	-	-	-	-	-	-	-	-	-
MW-4	09/14/2002	9.48	5.22	4.26	0.00	0.00	-	-	-	-	490	<10	<1.0	<1.0	<3.0	2,400	-	-	-	-	-	-	-	-	-
MW-4	12/13/2002	9.48	4.67	4.81	0.00	0.00	-	-	-	-	440	<0.50	<0.50	<0.50	<1.5	2,200	-	-	-	-	-	-	-	-	-
MW-4	03/14/2003	9.48	4.64	4.84	0.00	0.00	-	-	-	-	490	<0.50	<0.50	<0.50	<1.5	2,600	-	-	-	-	-	-	-	-	-



TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENBERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCs					ADDITIONAL VOCs									
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	AME				
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
MW-4	06/09/2003 <sup>13</sup>	9.48	5.03	4.45	0.00	0.00	-	-	-	-	340	<0.5	<0.5	<0.5	<0.5	-	1,700	-	-	-	-	-	-	-	-	-
MW-4	09/03/2003 <sup>13</sup>	9.48	5.65	3.83	0.00	0.00	-	-	-	-	320	<1	<1	<1	<1	-	1,600	<130	-	-	-	-	-	-	-	-
MW-4	12/01/2003 <sup>13</sup>	9.48	4.97	4.51	0.00	0.00	-	-	-	-	350	<1	<1	<1	<1	-	1,700	<100	-	-	-	-	-	-	-	-
MW-4	03/01/2004 <sup>13</sup>	9.48	4.68	4.80	0.00	0.00	-	-	-	-	240	<0.5	<0.5	<0.5	<0.5	-	1,200	<50	-	-	-	-	-	-	-	-
MW-4	06/02/2004 <sup>13</sup>	9.48	4.93	4.55	0.00	0.00	-	-	-	-	240	<0.5	<0.5	<0.5	<0.5	-	1,600	<50	-	-	-	-	-	-	-	-
MW-4	09/03/2004 <sup>13</sup>	9.48	4.99	4.49	0.00	0.00	-	-	-	-	270	<1	<1	<1	<1	-	1,500	<100	-	-	-	-	-	-	-	-
MW-4	12/20/2004 <sup>13</sup>	9.48	4.18	5.30	0.00	0.00	-	-	-	-	230	<3	<3	<3	<3	-	1,900	<250	-	-	-	-	-	-	-	-
MW-4	03/12/2005 <sup>13</sup>	9.48	5.32	4.16	0.00	0.00	-	-	-	-	180	<1	<1	<1	<1	-	1,200	<100	-	-	-	-	-	-	-	-
MW-4	06/28/2005 <sup>13</sup>	9.48	5.26	4.22	0.00	0.00	-	-	-	-	180	<0.5	<0.5	<0.5	<0.5	-	920	<50	-	-	-	-	-	-	-	-
MW-4	09/01/2005 <sup>13</sup>	9.48	4.91	4.57	0.00	0.00	-	-	-	-	250	<1	<1	<1	<1	-	1,500	<100	-	-	-	-	-	-	-	-
MW-4	12/01/2005 <sup>13</sup>	9.48	4.88	4.60	0.00	0.00	-	-	-	-	61	<0.5	<0.5	<0.5	<0.5	-	260	<50	-	-	-	-	-	-	-	-
MW-4	03/04/2006 <sup>13</sup>	9.48	5.02	4.46	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	80	<50	-	-	-	-	-	-	-	-
MW-4	06/01/2006 <sup>13</sup>	9.48	4.23	5.25	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	51	<50	-	-	-	-	-	-	-	-
MW-4	09/01/2006 <sup>13</sup>	9.48	5.36	4.12	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	29	<50	-	-	-	-	-	-	-	-
MW-4	12/15/2006 <sup>13</sup>	9.48	4.94	4.54	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	19	<50	-	-	-	-	-	-	-	-
MW-4	03/15/2007 <sup>13</sup>	9.48	5.02	4.46	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	18	<50	-	-	-	-	-	-	-	-
MW-4	06/15/2007 <sup>13</sup>	9.48	5.00	4.48	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	16	<50	-	-	-	-	-	-	-	-
MW-4	09/06/2007 <sup>13</sup>	9.48	4.97	4.51	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	9	<50	-	-	-	-	-	-	-	-
MW-4	12/07/2007 <sup>13</sup>	9.48	4.51	4.97	0.00	0.00	-	-	-	-	<250 <sup>17</sup>	<0.5	<0.5	<0.5	<0.5	-	15	<50	-	-	-	-	-	-	-	-
MW-4	03/07/2008 <sup>13</sup>	9.48	4.85	4.63	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	15	<50	-	-	-	-	-	-	-	-
MW-4	06/24/2008 <sup>13</sup>	9.48	3.73	5.75	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	15	<50	-	-	-	-	-	-	-	-
MW-4	09/11/2008 <sup>13</sup>	9.48	5.71	3.77	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	34	<50	-	-	-	-	-	-	-	-
MW-4	12/19/2008 <sup>13</sup>	9.48	4.89	4.59	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	33	<50	-	-	-	-	-	-	-	-
MW-4	06/01/2009	9.48	4.45	5.03	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	23	<50	-	-	-	-	-	-	-	-
MW-4	09/30/2009	9.48	4.37	5.11	0.00	0.00	-	-	-	-	<500	<0.5	<0.5	<0.5	<0.5	-	22	<50	-	-	-	-	-	-	-	-
MW-4	12/10/2009	9.48	9.04	0.44	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	33	<50	-	-	-	-	-	-	-	-
MW-4	03/08/2010	9.48	4.93	4.55	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	30	<50	-	-	-	-	-	-	-	-
MW-4	06/06/2010	9.48	4.60	4.88	0.00	0.00	400	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	21	<50	-	-	-	-	-	-	-	-
MW-4	09/02/2010	9.48	5.00	4.48	0.00	0.00	500	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	17	<50	-	-	-	-	-	-	-	-
MW-4	12/09/2010	9.48	4.91	4.57	0.00	0.00	370	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	48	<50	-	-	-	-	-	-	-	-

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GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENBERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCs					ADDITIONAL VOCs								
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	FAHE			
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-4	03/23/2011	9.48	5.12	4.36	0.00	0.00	500	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	16	<50	-	-	-	-	-	-	-
MW-4	06/24/2011	9.48	5.33	4.15	0.00	0.00	-	94 J	-	90 J	<50	<0.5	<0.5	<0.5	<0.5	-	16	<50	-	-	-	-	-	-	-
MW-4	09/30/2011	9.48	5.31	4.17	0.00	0.00	-	<39	-	<50	<50	<5	<5	<5	<5	-	13 J	<500	680 J	<5	<5	<5	<5	<5	<5
MW-4	03/16/2012	9.48	4.45	5.03	0.00	0.00	-	<38	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	18	<50	-	-	-	-	-	-	-
MW-4	09/13/2012	9.48	5.00	4.48	0.00	0.00	-	260	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	31	<50	-	-	-	-	-	-	-
MW-4	02/28/2013	9.48	5.30	4.18	0.00	0.00	-	<38	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	15	<50	-	-	-	-	-	-	-
MW-4	09/21/2013	9.48	4.52	4.96	0.00	0.00	-	<38	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	28	<50	-	-	-	-	-	-	-
<b>MW-4</b>	<b>03/18/2014</b>	<b>9.48</b>	<b>4.46</b>	<b>5.02</b>	<b>0.00</b>	<b>0.00</b>	-	<b>&lt;38</b>	-	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	-	<b>23</b>	<b>&lt;50</b>	-	-	-	-	-	-	-
MW-5	10/23/2000 <sup>10</sup>	8.77	4.59	4.18	0.00	0.00	-	-	-	-	<50	<0.500	<0.500	<0.500	<0.500	4.34	-	<1,000	<100	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
MW-5	12/08/2000	8.77	3.43	5.34	0.00	0.00	-	-	-	-	<50.0	<0.500	<0.500	<0.500	<0.500	11.0	-	-	-	-	-	-	-	-	-
MW-5	03/03/2001 <sup>11</sup>	8.77	2.40	6.37	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	24	-	-	-	-	-	-	-	-	-
MW-5	06/19/2001	8.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	09/05/2001	8.77	3.75	5.02	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	31	-	-	-	-	-	-	-	-	-
MW-5	12/10/2001	8.77	2.79	5.98	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	45	-	-	-	-	-	-	-	-	-
MW-5	03/04/2002	8.77	2.52	6.25	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	29	-	-	-	-	-	-	-	-	-
MW-5	06/03/2002	8.77	3.20	5.57	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	40	-	-	-	-	-	-	-	-	-
MW-5	09/14/2002	8.77	3.85	4.92	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	92	-	-	-	-	-	-	-	-	-
MW-5	12/13/2002	8.77	3.45	5.32	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	32	-	-	-	-	-	-	-	-	-
MW-5	03/14/2003	8.77	2.95	5.82	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	71	-	-	-	-	-	-	-	-	-
MW-5	06/09/2003 <sup>13</sup>	8.77	3.19	5.58	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	79	-	-	-	-	-	-	-	-
MW-5	09/03/2003 <sup>13</sup>	8.77	3.79	4.98	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	2	<50	-	-	-	-	-	-	-
MW-5	12/01/2003 <sup>13</sup>	8.77	3.34	5.43	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	52	<50	-	-	-	-	-	-	-
MW-5	03/01/2004 <sup>13</sup>	8.77	2.48	6.29	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	120	<50	-	-	-	-	-	-	-
MW-5	06/02/2004 <sup>13</sup>	8.77	3.11	5.66	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	110	<50	-	-	-	-	-	-	-
MW-5	09/03/2004 <sup>13</sup>	8.77	5.11	3.66	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	80	<50	-	-	-	-	-	-	-
MW-5	12/20/2004 <sup>13</sup>	8.77	5.10	3.67	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	62	<50	-	-	-	-	-	-	-
MW-5	03/12/2005 <sup>13</sup>	8.77	4.71	4.06	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	58	<50	-	-	-	-	-	-	-
MW-5	06/28/2005 <sup>13</sup>	8.77	4.93	3.84	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	64	<50	-	-	-	-	-	-	-
MW-5	09/01/2005 <sup>13</sup>	8.77	4.92	3.85	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	61	<50	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENBERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCs						ADDITIONAL VOCs						
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	AME		
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-5	12/01/2005 <sup>13</sup>	8.77	4.81	3.96	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	50	<50	-	-	-	-	-	-
MW-5	03/04/2006 <sup>13</sup>	8.77	4.78	3.99	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	49	<50	-	-	-	-	-	-
MW-5	06/01/2006 <sup>13</sup>	8.77	4.89	3.88	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	38	<50	-	-	-	-	-	-
MW-5	09/01/2006 <sup>13</sup>	8.77	4.94	3.83	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	32	<50	-	-	-	-	-	-
MW-5	12/15/2006 <sup>13</sup>	8.77	4.68	4.09	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	26	<50	-	-	-	-	-	-
MW-5	03/15/2007 <sup>13</sup>	8.77	4.88	3.89	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	23	<50	-	-	-	-	-	-
MW-5	06/15/2007 <sup>13</sup>	8.77	4.87	3.90	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	22	<50	-	-	-	-	-	-
MW-5	09/06/2007 <sup>13</sup>	8.77	4.77	4.00	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	17	<50	-	-	-	-	-	-
MW-5	12/07/2007 <sup>13</sup>	8.77	4.99	3.78	0.00	0.00	-	-	-	-	<250 <sup>17</sup>	<0.5	<0.5	<0.5	<0.5	-	22	<50	-	-	-	-	-	-
MW-5	03/07/2008 <sup>13</sup>	8.77	4.89	3.88	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	18	<50	-	-	-	-	-	-
MW-5	06/24/2008 <sup>13</sup>	8.77	5.12	3.65	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	18	<50	-	-	-	-	-	-
MW-5	09/11/2008 <sup>13</sup>	8.77	5.21	3.56	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	18	<50	-	-	-	-	-	-
MW-5	12/19/2008 <sup>13</sup>	8.77	4.98	3.79	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	17	<50	-	-	-	-	-	-
MW-5	06/01/2009	8.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	09/30/2009	8.77	3.45	5.32	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	14	<50	-	-	-	-	-	-
MW-5	12/10/2009	8.77	4.76	4.01	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	06/06/2010	8.77	4.93	3.84	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	09/02/2010	8.77	5.30	3.47	0.00	0.00	190	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	12	<50	-	-	-	-	-	-
MW-5	12/09/2010 <sup>23,24</sup>	8.77	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	03/23/2011	8.77	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	06/24/2011	8.77	4.88	3.89	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-5	09/30/2011	8.77	5.22	3.55	0.00	0.00	-	43 J	-	<50	<50	<5	<5	<5	<5	-	8 J	<500	<50	<5	<5	<5	<5	<5
MW-5	03/16/2012	8.77	4.73	4.04	0.00	0.00	-	-	-	58 J	<50	<0.5	<0.5	<0.5	<0.5	-	5	<50	-	-	-	-	-	-
MW-5	09/13/2012	8.77	4.90	3.87	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	6	<50	-	-	-	-	-	-
MW-5	02/28/2013	8.77	5.08	3.69	0.00	0.00	-	<43	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	6	<50	-	-	-	-	-	-
MW-5	09/21/2013	8.77	5.44	3.33	0.00	0.00	-	2,100	-	11,000	<50	<0.5	<0.5	<0.5	<0.5	-	3	<50	-	-	-	-	-	-
MW-5	03/18/2014	8.77	5.03	3.74	0.00	0.00	-	550	-	330	<50	<0.5	<0.5	<0.5	<0.5	-	4	<50	-	-	-	-	-	-
MW-6	10/23/2000 <sup>10</sup>	11.45	7.15	4.30	0.00	0.00	-	-	-	-	<50	<0.500	<0.500	<0.500	<0.500	5.96	-	<1,000	<100	<2.00	<2.00	<2.00	<2.00	<2.00
MW-6	12/08/2000	11.45	6.84	4.61	0.00	0.00	-	-	-	-	<50.0	<0.500	<0.500	<0.500	<0.500	8.80	-	-	-	-	-	-	-	-

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							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	AME	
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-6	03/03/2001 <sup>11</sup>	11.45	6.13	5.32	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	9.0	-	-	-	-	-	-	-
MW-6	06/19/2001	11.45	5.80	5.65	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-	-
MW-6	09/05/2001	11.45	5.16	6.29	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
MW-6	12/10/2001	11.45	4.81	6.64	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
MW-6	03/04/2002	11.45	4.16	7.29	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
MW-6	06/03/2002	11.45	5.71	5.74	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
MW-6	09/14/2002	11.45	6.65	4.80	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
MW-6	12/13/2002	11.45	6.39	5.06	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
MW-6	03/14/2003	11.45	6.47	4.98	0.00	0.00	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
MW-6	06/09/2003 <sup>13</sup>	11.45	6.78	4.67	0.00	0.00	-	-	-	-	<50	<0.5	0.7	<0.5	<0.5	-	1	-	-	-	-	-	-
MW-6	09/03/2003 <sup>13</sup>	11.45	7.08	4.37	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	0.8	<50	-	-	-	-	-
MW-6	12/01/2003 <sup>13</sup>	11.45	3.57	7.88	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-
MW-6	03/01/2004 <sup>13</sup>	11.45	3.18	8.27	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	25	<50	-	-	-	-	-
MW-6	06/02/2004 <sup>13</sup>	11.45	3.50	7.95	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-
MW-6	09/03/2004 <sup>13</sup>	11.45	2.17	9.28	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	0.6	<50	-	-	-	-	-
MW-6	12/20/2004 <sup>13</sup>	11.45	6.03	5.42	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	0.6	<50	-	-	-	-	-
MW-6	03/12/2005 <sup>13</sup>	11.45	5.05	6.40	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-
MW-6	06/28/2005 <sup>13</sup>	11.45	2.36	9.09	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-
MW-6	09/01/2005 <sup>13</sup>	11.45	2.87	8.58	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	1	<50	-	-	-	-	-
MW-6	12/01/2005 <sup>13</sup>	11.45	2.90	8.55	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-
MW-6	03/04/2006 <sup>13</sup>	11.45	3.71	7.74	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-
MW-6	06/01/2006 <sup>13</sup>	11.45	2.57	8.88	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-
MW-6	09/01/2006 <sup>13</sup>	11.45	2.36	9.09	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	1	<50	-	-	-	-	-
MW-6	12/15/2006 <sup>13</sup>	11.45	3.16	8.29	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-
MW-6	03/15/2007 <sup>13</sup>	11.45	2.42	9.03	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-
MW-6	06/15/2007 <sup>13</sup>	11.45	3.32	8.13	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-
MW-6	09/06/2007 <sup>13</sup>	11.45	5.41	6.04	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	0.6	<50	-	-	-	-	-
MW-6	12/07/2007 <sup>13</sup>	11.45	5.94	5.51	0.00	0.00	-	-	-	-	<250 <sup>17</sup>	<0.5	<0.5	<0.5	<0.5	-	1	<50	-	-	-	-	-
MW-6	03/07/2008 <sup>13</sup>	11.45	6.22	5.23	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-
MW-6	06/24/2008 <sup>13</sup>	11.45	2.48	8.97	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENERBERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCS					ADDITIONAL VOCS							
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	AME		
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-6	09/11/2008 <sup>13</sup>	11.45	2.57	8.88	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	1	<50	-	-	-	-	-	-
MW-6	12/19/2008 <sup>13</sup>	11.45	3.67	7.78	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	1	<50	-	-	-	-	-	-
MW-6	06/01/2009	11.45	5.32	6.13	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	0.9 J	<50	-	-	-	-	-	-
MW-6	09/30/2009	11.45	5.32	6.13	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	4	<50	-	-	-	-	-	-
MW-6	12/10/2009	11.45	2.54	8.91	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	03/08/2010	11.45	3.30	8.15	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	3	<50	-	-	-	-	-	-
MW-6	06/06/2010	11.45	2.42	9.03	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	09/02/2010	11.45	3.03	8.42	0.00	0.00	110 J	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-	-
MW-6	12/09/2010 <sup>23</sup>	11.45	2.34	9.11	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	03/23/2011	11.45	2.62	8.83	0.00	0.00	180	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	2	<50	-	-	-	-	-	-
MW-6	06/24/2011	11.45	5.11	6.34	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	09/30/2011	11.45	3.86	7.59	0.00	0.00	-	51 J	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	4 J	<50	<5	<0.5	<0.5	<0.5	0.6 J	-
MW-6	03/16/2012 <sup>26</sup>	11.45	3.69	7.76	0.00	0.00	-	190/66 J	-	78 J/<50	<50/<50	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	-	3/<0.5	<50/<50	-	-	-	-	-	-
MW-6	09/13/2012	11.45	4.31	7.14	0.00	0.00	-	180	-	180	<50	<0.5	<0.5	<0.5	<0.5	-	6	<50	-	-	-	-	-	-
MW-6	02/28/2013	11.45	4.25	7.20	0.00	0.00	-	70 J	-	110 J	<50	<0.5	<0.5	<0.5	<0.5	-	6	<50	-	-	-	-	-	-
MW-6	09/21/2013 <sup>28,29</sup>	11.45	-	-	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-6</b>	<b>03/18/2014<sup>27</sup></b>	<b>11.45</b>	<b>-</b>	<b>-</b>	<b>0.00</b>	<b>0.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
MW-7	10/23/2000 <sup>10</sup>	10.58	6.25	4.33	0.00	0.00	-	-	-	-	<50	<0.500	<0.500	<0.500	<0.500	1,210	-	<6,670	<667	13.3	13.3	199	-	-
MW-7	12/08/2000	10.58	7.23	3.35	0.00	0.00	-	-	-	-	<50.0	<0.500	<0.500	<0.500	<0.500	338	-	-	-	-	-	-	-	-
MW-7	03/03/2001 <sup>11</sup>	10.58	6.27	4.31	0.00	0.00	-	-	-	-	72 <sup>12</sup>	<0.50	<0.50	<0.50	<0.50	460	-	-	-	-	-	-	-	-
MW-7	06/19/2001	10.58	5.82	4.76	0.00	0.00	-	-	-	-	110 <sup>1</sup>	18	<0.50	<0.50	<0.50	440	-	-	-	-	-	-	-	-
MW-7	09/05/2001	10.58	6.54	4.04	0.00	0.00	-	-	-	-	180	<0.50	<0.50	<0.50	<1.5	640	-	-	-	-	-	-	-	-
MW-7	12/10/2001	10.58	5.54	5.04	0.00	0.00	-	-	-	-	110	<0.50	<0.50	<0.50	<1.5	390	-	-	-	-	-	-	-	-
MW-7	03/04/2002	10.58	6.90	3.68	0.00	0.00	-	-	-	-	220	1.1	<0.50	3.0	<1.5	460	-	-	-	-	-	-	-	-
MW-7	06/03/2002	10.58	5.64	4.94	0.00	0.00	-	-	-	-	130	<0.50	<0.50	<0.50	<1.5	350	-	-	-	-	-	-	-	-
MW-7	09/14/2002	10.58	7.03	3.55	0.00	0.00	-	-	-	-	120	<2.0	<0.50	<0.50	<1.5	340	-	-	-	-	-	-	-	-
MW-7	12/13/2002	10.58	5.59	4.99	0.00	0.00	-	-	-	-	57	<0.50	<0.50	<0.50	<1.5	150	-	-	-	-	-	-	-	-
MW-7	03/14/2003	10.58	5.98	4.60	0.00	0.00	-	-	-	-	77	<0.50	<0.50	<0.50	<1.5	240	-	-	-	-	-	-	-	-
MW-7	06/09/2003 <sup>13</sup>	10.58	6.26	4.32	0.00	0.00	-	-	-	-	79	<0.5	<0.5	<0.5	<0.5	-	210	-	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENERBERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCs					ADDITIONAL VOCs							
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	FAHE		
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-7	09/03/2003 <sup>13</sup>	10.58	6.86	3.72	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	0.8	<50	-	-	-	-	-	-
MW-7	12/01/2003 <sup>13</sup>	10.58	5.47	5.11	0.00	0.00	-	-	-	-	58	<0.5	<0.5	<0.5	<0.5	-	130	<50	-	-	-	-	-	-
MW-7	03/01/2004 <sup>13</sup>	10.58	5.98	4.60	0.00	0.00	-	-	-	-	71	<0.5	<0.5	<0.5	<0.5	-	180	<50	-	-	-	-	-	-
MW-7	06/02/2004 <sup>13</sup>	10.58	4.81	5.77	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	87	<50	-	-	-	-	-	-
MW-7	09/03/2004 <sup>13</sup>	10.58	6.42	4.16	0.00	0.00	-	-	-	-	55	<0.5	<0.5	<0.5	<0.5	-	140	<50	-	-	-	-	-	-
MW-7	12/20/2004 <sup>13</sup>	10.58	6.22	4.36	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	130	<50	-	-	-	-	-	-
MW-7	03/12/2005 <sup>13</sup>	10.58	5.79	4.79	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	110	<50	-	-	-	-	-	-
MW-7	06/28/2005 <sup>13</sup>	10.58	4.62	5.96	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	30	<50	-	-	-	-	-	-
MW-7	09/01/2005 <sup>13</sup>	10.58	4.78	5.80	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	70	<50	-	-	-	-	-	-
MW-7	12/01/2005 <sup>13</sup>	10.58	4.01	6.57	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	35	<50	-	-	-	-	-	-
MW-7	03/04/2006 <sup>13</sup>	10.58	5.89	4.69	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	49	<50	-	-	-	-	-	-
MW-7	06/01/2006 <sup>13</sup>	10.58	5.10	5.48	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	35	<50	-	-	-	-	-	-
MW-7	09/01/2006 <sup>13</sup>	10.58	5.31	5.27	0.00	0.00	-	-	-	-	<50	0.5	5	<0.5	5	-	17	<50	-	-	-	-	-	-
MW-7	12/15/2006 <sup>13</sup>	10.58	5.89	4.69	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	20	<50	-	-	-	-	-	-
MW-7	03/15/2007 <sup>13</sup>	10.58	5.67	4.91	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	19	<50	-	-	-	-	-	-
MW-7	06/15/2007 <sup>13</sup>	10.58	5.05	5.53	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	12	<50	-	-	-	-	-	-
MW-7	09/06/2007 <sup>13</sup>	10.58	5.42	5.16	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	14	<50	-	-	-	-	-	-
MW-7	12/07/2007 <sup>13</sup>	10.58	5.38	5.20	0.00	0.00	-	-	-	-	<250 <sup>17</sup>	<0.5	<0.5	<0.5	<0.5	-	8	<50	-	-	-	-	-	-
MW-7	03/07/2008 <sup>13</sup>	10.58	5.54	5.04	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	8	<50	-	-	-	-	-	-
MW-7	06/24/2008 <sup>13</sup>	10.58	6.10	4.48	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	9	<50	-	-	-	-	-	-
MW-7	09/11/2008 <sup>13</sup>	10.58	6.86	3.72	0.00	0.00	-	-	-	-	99	<0.5	<0.5	<0.5	<0.5	-	16	<50	-	-	-	-	-	-
MW-7	12/19/2008 <sup>13</sup>	10.58	6.54	4.04	0.00	0.00	-	-	-	-	<50	<0.5	0.7	<0.5	1	-	9	<50	-	-	-	-	-	-
MW-7	06/01/2009	10.58	4.10	6.48	0.00	0.00	-	-	-	-	70 J	<0.5	<0.5	<0.5	<0.5	-	9	<50	-	-	-	-	-	-
MW-7	09/30/2009	10.58	3.11	7.47	0.00	0.00	-	-	-	-	110	<0.5	<0.5	<0.5	<0.5	-	11	<50	-	-	-	-	-	-
MW-7	12/10/2009	10.58	6.93	3.65	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	03/08/2010	10.58	5.70	4.88	0.00	0.00	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	7	<50	-	-	-	-	-	-
MW-7	06/06/2010	10.58	5.56	5.02	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	09/02/2010	10.58	5.87	4.71	0.00	0.00	390	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	7	<50	-	-	-	-	-	-
MW-7	12/09/2010 <sup>23</sup>	10.58	5.44	5.14	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	03/23/2011	10.58	4.64	5.94	0.00	0.00	480	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	4	<50	-	-	-	-	-	-

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCS					ADDITIONAL VOCS						
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	AME	
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
MW-7	06/24/2011	10.58	5.70	4.88	0.00	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	09/30/2011	10.58	6.60	3.98	0.00	0.00	-	48 J	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	6	<50	81	<0.5	<0.5	0.7 J	-
MW-7	03/16/2012	10.58	5.93	4.65	0.00	0.00	-	<38	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	5	<50	-	-	-	-	-
MW-7	09/13/2012	10.58	6.16	4.42	0.00	0.00	-	54 J	-	<50	<50	<0.5	<0.5	<0.5	<0.5	-	3	<50	-	-	-	-	-
MW-7	02/28/2013 <sup>27</sup>											Monitoring well destroyed											
QA	12/10/2001	-	-	-	-	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
QA	03/04/2002	-	-	-	-	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
QA	06/03/2002	-	-	-	-	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
QA	09/14/2002	-	-	-	-	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
QA	12/13/2002	-	-	-	-	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
QA	03/14/2003	-	-	-	-	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-	-
QA	06/09/2003 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	09/03/2003 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	12/01/2003 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	03/01/2004 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	06/02/2004 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	09/03/2004 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	12/20/2004 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	03/12/2005 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	06/28/2005 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	09/01/2005 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	315 <sup>15</sup>	<0.5	215 <sup>15</sup>	-	<0.5	-	-	-	-	-	-
QA	12/01/2005 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	03/04/2006 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	06/01/2006 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	09/01/2006 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	12/15/2006 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	03/15/2007 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	06/15/2007 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-
QA	09/06/2007 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-



TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENERBERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCS					ADDITIONAL VOCS							
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	AME		
	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
QA	12/07/2007 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	03/07/2008 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	06/24/2008 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	09/11/2008 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	12/19/2008 <sup>13</sup>	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	06/01/2009	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	09/30/2009	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	12/10/2009	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	03/08/2010	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	06/06/2010	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	09/02/2010	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	12/09/2010	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	03/23/2011	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	06/24/2011	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	09/30/2011	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	03/16/2012	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	09/13/2012	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	02/28/2013	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	<50	-	-	-	-	-	-
QA	09/21/2013	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-
QA	03/18/2014	-	-	-	-	-	-	-	-	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-
Trip Blank	03/29/1996	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
Trip Blank	06/26/1996	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-
Trip Blank	09/25/1996	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-
Trip Blank	12/17/1996	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-
Trip Blank	03/20/1997	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-
Trip Blank	06/20/1997	-	-	-	-	-	-	-	-	-	<50	<2.0	<2.0	<2.0	<2.0	-	-	-	-	-	-	-	-	-
Trip Blank	09/09/1997	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-
Trip Blank	12/12/1997	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-
Trip Blank	02/19/1998	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-	-	-

**GROUNDWATER MONITORING AND SAMPLING DATA  
CHEVRON SERVICE STATION 91851  
451 HEGENBERGER ROAD  
OAKLAND, CALIFORNIA**

Location	Date	TOC	DTW	GWE	LNAPLT	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCS					ADDITIONAL VOCS					
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	TAME
Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Trip Blank	06/23/1998	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-
Trip Blank	08/31/1998	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-
Trip Blank	12/29/1998	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.0	-	-	-	-	-	-
Trip Blank	03/11/1999	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-	-	-	-	-
Trip Blank	06/24/1999	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-	-	-	-	-
Trip Blank	09/29/1999	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-
Trip Blank	12/08/1999	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-	-	-	-	-	-
Trip Blank	03/01/2000	-	-	-	-	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<2.5	-	-	-	-	-	-
Trip Blank	06/19/2000	-	-	-	-	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-
Trip Blank	09/30/2000	-	-	-	-	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-
Trip Blank	10/05/2000	-	-	-	-	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-
Trip Blank	12/08/2000	-	-	-	-	-	-	-	-	-	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	-	-	-	-	-	-
Trip Blank	03/03/2001 <sup>11</sup>	-	-	-	-	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-
Trip Blank	06/19/2001	-	-	-	-	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<0.50	<2.5	-	-	-	-	-	-
Trip Blank	09/05/2001	-	-	-	-	-	-	-	-	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	-	-	-	-	-	-

**Abbreviations and Notes:**

- TOC = Top of casing.
- DTW = Depth to water.
- GWE = Groundwater Elevation.
- LNAPLT = Light non-aqueous phase liquid thickness.
- TPH-DRO = Total petroleum hydrocarbons - diesel range organics.
- TPH-GRO = Total petroleum hydrocarbons - gasoline range organics.
- VOCS = Volatile Organic Compounds
- BTEX = Benzene, toluene, ethylbenzene, xylenes.
- MTBE = Methyl tertiary butyl ether.
- TBA = Tertiary butyl alcohol.
- DIPE = Di-isopropyl ether.
- ETBE = Ethyl tertiary butyl ether.
- TAME = Tert amyl methyl ether.
- Ft = Feet.
- Ft-amsl = Feet above mean sea level.
- Gal = Gallons.
- µg/L = Micrograms per liter.
- = Not analyzed/not applicable.

TABLE 1

GROUNDWATER MONITORING AND SAMPLING DATA  
 CHEVRON SERVICE STATION 91851  
 451 HEGENBERGER ROAD  
 OAKLAND, CALIFORNIA

Location	Date	TOC	DTW	GWE	LNAPL	LNAPL REMOVED	HYDROCARBONS					PRIMARY VOCS					ADDITIONAL VOCS								
							Motor Oil	Motor Oil w/ Si Gel	TPH-DRO	TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE	MTBE by SW8260	Ethanol	TBA	DIPE	ETBE	FAAME			
Units	Units	ft	ft	ft-amsl	ft	gal	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

<x = Not detected above laboratory method detection limit x.

J = Estimated value.

- \* TOC elevations were surveyed on November 15, 2000, by Virgil Chavez Land Surveying. The benchmark for the survey was the letter "O" in Oakland on an inlet in the westerly curb of Oakport Road, 150' southerly of the end of curve. (Benchmark Elevation = 7.82 feet, msl).
- \*\* GWE was corrected for the presence of LNAPL; correction factor: [(TOC - DTW) + (LNAPL x 0.80)].
- 1 Laboratory report indicates gasoline C6-C12.
- 2 MTBE by EPA Method 8260.
- 3 Results of EPA 8010 test indicates that the detection of 1,1-Dichloroethane (1,1-DCA) was detected at 1.7 ppb.
- 4 Chromatogram pattern indicates an unidentified hydrocarbon.
- 5 Results of EPA 8015 test indicates that levels of Methanol and Methyl ethyl ketone are respectively <1000 and <200 ppb.
- 6 Confirmation run.
- 7 Laboratory report indicates unidentified hydrocarbons >C16.
- 8 Sample analyzed for Total Metals by EPA 200 Series Methods. All Analytes were less then the reporting limit except for Nickel was detected at 0.067 ppm and Zinc was detected at 0.024 ppm.
- 9 Laboratory report indicates that Semi-Volatile Organic Compounds
- 10 Data was provided by Delta Environmental Consultants, Inc.
- 11 Laboratory report indicates sample was analyzed outside the EPA recommended holding time.
- 12 Laboratory report indicates unidentified hydrocarbons C6-C12.
- 13 BTEX and MTBE by EPA Method 8260.
- 14 LNAPL + Water removed.
- 15 Analytical result confirmed.
- 16 Probe did not detect LNAPL but was covered with product; LNAPL was confirmed with bailer.
- 17 Laboratory report indicates due to excessive foaming of the sample, normal reporting limits were not attained.
- 18 Water plus 15 milliliters of product removed from well.
- 19 The vial submitted for volatile analysis did not have a pH<2 at the time of analysis, pH = 7.
- 20 Due to excessive foaming of the sample, normal reporting limits were not attained.
- 21 Laboratory report indicates the result reported for xylene (total) is possibly the result of carryover from the sample injected prior to this sample. Since only one vial was submitted, a repeat analysis without headspace could not be performed to confirm the results.
- 22 Not sampled due to presence of LNAPL.
- 23 Sampled semi-annually.
- 24 Inaccessible - Well covered.
- 25 Monitoring and sampling occurred on 06/10/2010; however, the sample collection date was incorrectly written on the COC.
- 26 Pre-purge / post purge samples.
- 27 Monitoring well destroyed.
- 28 Dry.
- 29 Well damaged.

ATTACHMENT A

MONITORING DATA PACKAGE



March 20, 2014

Chevron Environmental Management Company  
Brian Waite  
6111 Bollinger Canyon Rd.  
San Ramon, CA 94583

First Quarter 2014 Monitoring at  
Chevron Service Station 91851  
451 Hegenberger Rd.  
Oakland, CA

Monitoring performed on March 18, 2014

---

**Blaine Tech Services, Inc. Groundwater Monitoring Event 140318-BW3**

This submission covers the routine monitoring of groundwater wells conducted on March 18, 2014 at this location. Two monitoring wells were measured for depth to groundwater (DTW). Two monitoring wells were sampled. Well MW-1 was not sampled due to being covered by a construction trench plate and MW-6 was unable to be located. All sampling activities were performed in accordance with local, state and federal guidelines.

Water levels measurements were collected using an electronic slope indicator. All sampled wells were purged of three case volumes, depending on well recovery, or until water temperature, pH and conductivity stabilized. Purging was accomplished using electric submersible pumps, positive air displacement pumps, or stainless steel, Teflon, or disposable bailers. Subsequent sample collection and sample handling was performed in accordance with EPA protocols. Alternately, where applicable, wells were sampled utilizing no-purge methodology. All reused equipment was decontaminated in an integrated stainless steel sink with de-ionized water supplied Hotsy pressure washer and Liquinox or equivalent.

First Quarter Groundwater Monitoring at Chevron 91851, 451 Hegenberger Rd., Oakland, CA

SAN JOSE

SACRAMENTO

LOS ANGELES

SAN DIEGO

1680 ROGERS AVENUE

SAN JOSE, CA 95112-1105

(408) 573-0555

FAX (408) 573-7771

LIC. 746684

[www.blainetech.com](http://www.blainetech.com)

Samples were delivered under chain-of-custody to Lancaster Laboratories of Lancaster, Pennsylvania, for analysis. Monitoring well purgewater and equipment rinsate water was collected and transported under bill-of-lading to Blaine Tech of San Jose, California.

Enclosed documentation from this event includes copies of the Well Gauging Sheet, Well Monitoring Data Sheets, and Chain-of-Custody.

Blaine Tech Services, Inc.'s activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrogeologic conditions or formulation of recommendations was performed.

Please call if you have any questions.

Sincerely,



Dustin Becker  
Blaine Tech Services, Inc.  
Senior Project Manager

attachments: SOP  
Well Gauging Sheet  
Individual Well Monitoring Data Sheets  
Wellhead Inspection Form  
Bill of Lading  
Calibration Log

cc: CRA  
Attn: Nathan Lee  
2300 Clayton Rd., Suite 920  
Concord, CA 94520

First Quarter Groundwater Monitoring at Chevron 91851, 451 Hegenberger Rd., Oakland, CA

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# BLAINE TECH SERVICES, INC. METHODS AND PROCEDURES FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS AT CHEVRON SITES

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. We specialize in groundwater monitoring assignments and intentionally limit the scope of our services to those centered on the generation of objective information.

To avoid conflicts of interest, Blaine Tech Services, Inc. personnel do not evaluate or interpret the information we collect. As a state licensed contractor (C-57 well drilling –water – 746684) performing strictly technical services, we do not make any professional recommendations and perform no consulting of any kind.

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## **SAMPLING PROCEDURES OVERVIEW**

### **SAFETY**

All groundwater monitoring assignments performed for Chevron comply with Chevron's safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40-hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any Chevron site.

### **INSPECTION AND GAUGING**

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic water level indicators that are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of immiscibles. When free product is suspected, its presence is confirmed using an electronic interface probe (e.g. GeoTech). No samples are collected from a well containing product.

### **TRADITIONAL PURGING & SAMPLING**

#### **Evacuation**

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.

Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well.



## **Parameter Stabilization**

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

## **Sample Collection**

All samples are collected using disposable bailers.

## **Sample Containers**

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory that will analyze the samples. The transfer of sample material from the bailer to the sample container conforms to specifications contained in the USEPA T.E.G.D. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

## **Dewatered Wells**

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewateres and does not immediately recharge.

## **Measuring Recharge**

Upon completion of well purging, a depth to water measurement is collected and notated to ensure that the well has recharged to within 80% of its static, pre-purge level prior to sampling.

Wells that do not immediately show 80% recharge or dewatered wells will be allowed approximately 2 hours to recharge prior to sampling or will be sampled at site departure. All wells requiring off-site traffic control in the public right-of-way, the 80% recharge rule may be disregarded in the interests of Health and Safety. The sample may be collected as soon as there is sufficient water. The water level at time of sampling will be noted.

## **Dissolved Oxygen Measurements**

Dissolved Oxygen readings are taken pre- and/or post-purge using YSI meters (e.g. YSI Model 550) or HACH field test kits.

The YSI meters are able to collect accurate in-situ readings. The probe allows downhole measurements to be taken from wells with diameters as small as two inches. The probe and reel is decontaminated between wells as described above. The meter is calibrated

as per the instructions in the operating manual. The probe is lowered into the water column and the reading is allowed to stabilize prior to collection.

### **Oxidation Reduction Potential Measurements (ORP)**

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual.

## **LOW FLOW SAMPLING USING SAMPLE-PRO BLADDER PUMP**

### **Calibration**

Calibrate YSI Flow Cell as per manufacturer's specifications. Thoroughly rinse probe and cup between parameters. Calibration order as follows:

1. pH (use 3-point calibration of 7, 4, 10)
2. Oxygen Reduction Potential (ORP)
3. Specific Conductance
4. Dissolved Oxygen (DO) (calibrate simulating 100% oxygen saturation)

### **Purging & Sampling Collection**

1. Insert new bladder into Sample-Pro pump housing.
2. Remove dedicated PE tubing from the well or start with new PE tubing cut to the required length.
3. Attach the PE tubing to the Sample-Pro Bladder Pump.
4. Gently lower the Sample-Pro Bladder Pump, and PE tubing into the well, placing the Sample-Pro Bladder Pump intake at the center of the screened interval. Take care to minimize disturbance to the water column.
5. Direct effluent line into YSI 556 Flow Cell.
6. Set Sample-Pro Bladder Pump speed at 100 - 500 ml/min.
7. Collect water quality parameter measurements for temperature, pH, conductivity, turbidity, DO and ORP every 3-5 minutes.
8. Monitor drawdown during purging with electronic water level meter. Record water level with each parameter measurement. **MAXIMUM DRAWDOWN IS 0.33 FEET.**
9. Collect parameter measurements until stability is achieved. Stability is defined as three consecutive measurements where:

Temp	± 1 ° Celsius
pH	± 0.1
Conductivity	± 3%
Turbidity	± 10% NTU
DO	± 0.3 mg/l
ORP	± 10 Mv

10. Sample may be collected once stability is achieved and at least one system volume of water removed from the well.
11. Disconnect effluent line from YSI 556 Flow Cell.
12. Sample through effluent line while maintaining constant flow rate.
13. Remove Sample-Pro Bladder Pump, and PE tubing from well.
14. Detach and reinstall dedicated PE tubing in well.

## **PURGEWATER CONTAINMENT**

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non-hazardous purgewater is transported under standard Bill of Lading or Non-Hazardous Waste Manifest to a Blaine Tech Services, Inc. facility before being transported to a Chevron approved disposal facility

## **TRIP BLANKS**

Trip Blanks, if requested, are taken to the site and kept inside the sample cooler for the duration of the event. They are turned over to the laboratory for analysis with the samples from that site.

## **DUPLICATES**

Duplicates, if requested, may be collected at a site.

## **SAMPLE STORAGE**

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the designated analytical laboratory. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

## **DOCUMENTATION CONVENTIONS**

A label must be affixed to all sample containers. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time and date of sample collection along with the initials of the person who collects the sample are handwritten onto the label. Field documentation is contemporaneous.

## **DECONTAMINATION**

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment such as hose reels, pumps and bailers is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is de-tuned to function as a hot pressure washer that is then operated with high quality deionized water that is produced at our facility and stored onboard our sampling vehicle. Cleaning is

facilitated by the use of proprietary fixtures and devices included in the patented workstation (U.S. Patent 5,535,775) that is incorporated in each sampling vehicle.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, water level indicator, etc.) that cannot be washed using the high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

## **FERROUS IRON MEASUREMENTS**

All field measurements are collected at time of sampling with a HACH test kit.

## WELL GAUGING DATA

Project # 140318-BW3 Date 3/18/14 Client Chevron

Site 451 Hegenberger Rd. Oakland

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1										* Well Covered by Trench Plate *
MW-4	1412	2					4.46	14.23	TOC	
MW-5	1406	2					5.03	8.04	TOC	
MW-6										* Well Destroyed *

## CHEVRON WELL MONITORING DATA SHEET

Project #: 140318-BW3	Station #: 1851
Sampler: BW	Date: 3/18/14
Weather: Clear	Ambient Air Temperature: 68°F
Well I.D.: MW-1	Well Diameter: 2 3 4 6 8 _____
Total Well Depth:	Depth to Water:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____
Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: _____	

_____ (Gals.) X _____ = _____ Gals. 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
* Well Covered by trench plate from construction *						
* No Sample Collected *						

Did well dewater? Yes      No	Gallons actually evacuated: _____	
Sampling Date: _____	Sampling Time: _____	Depth to Water: _____
Sample I.D.: _____	Laboratory: Lancaster      Other _____	
Analyzed for: TPH-G    BTEX    MTBE    OXYS    Other: _____		
Duplicate I.D.: _____      Analyzed for: TPH-G    BTEX    MTBE    OXYS    Other: _____		
D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

## CHEVRON WELL MONITORING DATA SHEET

Project #: 140318-BW3	Station #: 1851
Sampler: BW	Date: 3/18/14
Weather: Clear	Ambient Air Temperature: 70°F
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth: 14.23	Depth to Water: 4.46
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.41	

Purge Method:	Sampling Method: Bailer
<input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	<input type="checkbox"/> Waterra <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump <input type="checkbox"/> Other _____
	<input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing <input type="checkbox"/> Other: _____

1.6 (Gals.) X	3	= 4.8 Gals.
I Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1430	66.8	6.94	5349	642	1.6	
1432	67.3	6.78	7043	802	3.2	
1434	67.6	6.71	12.49 mg/cm	71000	4.8	

Did well dewater? Yes  No  Gallons actually evacuated: 4.8

Sampling Date: 3/18/14    Sampling Time: 1440    Depth to Water: 6.36

Sample I.D.: MW-4    Laboratory: Lancaster    Other: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.:    Analyzed for: TPH-G BTEX MTBE OXYS Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

## CHEVRON WELL MONITORING DATA SHEET

Project #: 140318-BW3	Station #: 1851
Sampler: BW	Date: 3/18/14
Weather: Clear	Ambient Air Temperature: 70°F
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth: 8.04	Depth to Water: 5.03
Depth to Free Product: -	Thickness of Free Product (feet): -
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.63	

Purge Method: Bailer Waterra Sampling Method: Bailer  
X Disposable Bailer Peristaltic X Disposable Bailer  
Positive Air Displacement Extraction Pump Extraction Port  
Electric Submersible Other \_\_\_\_\_ Dedicated Tubing  
Other: \_\_\_\_\_

0.5 (Gals.) X	3	= 1.5 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or (μS))	Turbidity (NTUs)	Gals. Removed	Observations
1418	62.3	6.77	4145	71000	0.5	
X Dewatered @ 0.7 gallons *						
1510	69.0	8.70	2810	41	-	

Did well dewater? (Yes) No Gallons actually evacuated: 0.7

Sampling Date: 3/18/14 Sampling Time: 1510 Depth to Water: 5.31

Sample I.D.: MW-5 Laboratory: Lancaster Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV



## CHEVRON WELL MONITORING DATA SHEET

Project #: 140318-BW3	Station #: 1851
Sampler: BW	Date: 3/18/14
Weather: Clear	Ambient Air Temperature: 68°F
Well I.D.: MW-6	Well Diameter: 2 3 4 6 8 _____
Total Well Depth:	Depth to Water:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC                  Grade	D.O. Meter (if req'd):                  YSI                  HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method:	Sampling Method:
Bailer	Bailer
Disposable Bailer	Disposable Bailer
Positive Air Displacement	Extraction Port
Electric Submersible	Dedicated Tubing
Waterra	Other: _____
Peristaltic	
Extraction Pump	
Other: _____	

	(Gals.) X _____ = _____ Gals.	
I Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
* Well Destroyed *						
* No Sample Collected *						

Did well dewater?      Yes                  No                  Gallons actually evacuated:

Sampling Date:                  Sampling Time:                  Depth to Water:

Sample I.D.:                  Laboratory:                  Lancaster    Other \_\_\_\_\_

Analyzed for:    TPH-G    BTEX    MTBE    OXYS    Other:

Duplicate I.D.:                  Analyzed for:    TPH-G    BTEX    MTBE    OXYS    Other:

D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV



# WELLHEAD INSPECTION CHECKLIST

Page 1 of 1

Client Chevron Date 3/18/14  
 Site Address 451 Hegenberger Rd. Oakland  
 Job Number 140318-BW3 Technician BW

Well ID	Well Inspected - No Corrective Action Required	WELL IS SECURABLE BY DESIGN (12" or less)	WELL IS CLEARLY MARKED WITH THE WORDS "MONITORING WELL" (12" or less)	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-1								X		
MW-4								X		
MW-5								X		
MW-6								X		

NOTES: MW-1: Well Covered by trench plate, MW-4: 2/2 Tabs Stripped  
 MW-5: No box, bare casing.  
 MW-6: Well Destroyed

SOURCE RECORD **BILL OF LADING**

FOR PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT CHEVRON FACILITIES IN THE STATE OF CALIFORNIA. THE PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR AND HAULED TO THEIR FACILITY IN SAN JOSE, CALIFORNIA FOR TEMPORARILY HOLDING PENDING TRANSPORT BY OTHERS TO FINAL DESTINATION.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BLAINE TECH), 1680 Rogers Ave. San Jose CA (408) 573-0555). BLAINE TECH. is authorized by Chevron Environmental Management Company (CHEVRON EMC) to recover, collect, apportion into loads, and haul the purgewater that is drawn from wells at the CHEVRON EMC facility indicated below and to deliver that purgewater to BLAINE TECH for temporarily holding. Transport routing of the purgewater may be direct from one CHEVRON EMC facility to BLAINE TECH; from one CHEVRON EMC facility to BLAINE TECH via another CHEVRON EMC facility; or any combination thereof. The well purgewater is and remains the property of CHEVRON EMC.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the Chevron facility described below:

<u>9-1851</u>	<u>Brian Waite</u>
CHEVRON #	Chevron Engineer
<u>451 Hegenberger Rd.</u>	<u>Oakland, CA</u>
street number	street name city state

WELL I.D.	GALS.	WELL I.D.	GALS.
<u>MW-4</u>	<u>5</u>	<u>/</u>	<u>/</u>
<u>MW-5</u>	<u>1</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>

added equip. \_\_\_\_\_  
 rinse water 1 \_\_\_\_\_  
 any other adjustments / \_\_\_\_\_

**TOTAL GALS. RECOVERED** 7 loaded onto BTS vehicle # 29

BTS event # 140318-BW3 time 1530 date 31/18/14

Transporter signature *Brian Waite*

\*\*\*\*\*  
**REC'D AT** BTS-SJ time 1615 date 31/18/14

Unloaded/received by signature *Brian Waite*



ATTACHMENT B

LABORATORY ANALYTICAL REPORT

## ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

Chevron  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

April 01, 2014

Project: 91851

Submittal Date: 03/20/2014  
Group Number: 1461018  
PO Number: 0015119899  
Release Number: HOPKINS/WAITE  
State of Sample Origin: CA

### Client Sample Description

MW-4-W-140318 NA Groundwater  
MW-5-W-140318 NA Groundwater  
QA-T-140318 NA Water

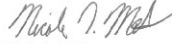
### Lancaster Labs (LL) #

7401557  
7401558  
7401559

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Chevron c/o CRA	Attn: Report Contact
ELECTRONIC COPY TO	Blaine Tech Services, Inc.	Attn: Dustin Becker
ELECTRONIC COPY TO	Chevron	Attn: Anna Avina
ELECTRONIC COPY TO	CRA	Attn: Ian Hull
ELECTRONIC COPY TO	CRA	Attn: Nathan Lee

Respectfully Submitted,



Nicole L. Maljovec  
Principal Specialist Group Leader

(717) 556-7259



Sample Description: MW-4-W-140318 NA Groundwater  
Facility# 91851 BTST  
451 Hegenberger-Oakland T0600102238

LL Sample # WW 7401557  
LL Group # 1461018  
Account # 10991

Project Name: 91851

Collected: 03/18/2014 14:40 by BW

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 03/20/2014 16:50

Reported: 04/01/2014 16:24

HRO04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>						
10943	Benzene	71-43-2	N.D.	0.5	1	1
10943	Ethanol	64-17-5	N.D.	50	250	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	23	0.5	1	1
10943	Toluene	108-88-3	N.D.	0.5	1	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
<b>GC Volatiles SW-846 8015B</b>						
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1
<b>GC Petroleum SW-846 8015B</b>						
<b>Hydrocarbons w/Si</b>						
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	100	1
The reverse surrogate, capric acid, is present at <1%.						
<b>GC Petroleum SW-846 8015B modified</b>						
<b>Hydrocarbons w/Si</b>						
10006	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	38	110	1
10006	Total TPH w/Si Gel	n.a.	N.D.	38	110	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	UST VOCs by 8260B - Water	SW-846 8260B	1	F140892AA	03/30/2014 17:26	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F140892AA	03/30/2014 17:26	Brett W Kenyon	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14084A20A	03/26/2014 14:38	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14084A20A	03/26/2014 14:38	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	140800005A	03/28/2014 13:02	Glorines Suarez-Rivera	1
10006	TPH Fuels water w/Si Gel	SW-846 8015B modified	1	140800038A	03/25/2014 11:33	Heather E Williams	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	140800005A	03/22/2014 07:00	Roman Kuropatkin	1

\*=This limit was used in the evaluation of the final result

Sample Description: MW-4-W-140318 NA Groundwater  
Facility# 91851 BTST  
451 Hegenberger-Oakland T0600102238

LL Sample # WW 7401557  
LL Group # 1461018  
Account # 10991

Project Name: 91851

Collected: 03/18/2014 14:40 by BW

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 03/20/2014 16:50

Reported: 04/01/2014 16:24

HRO04

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11195	TPH w/ Silica Gel Waters Ext.	SW-846 3510C	1	140800038A	03/24/2014 07:35	Olivia Arosemena	1

\*=This limit was used in the evaluation of the final result

Sample Description: MW-5-W-140318 NA Groundwater  
Facility# 91851 BTST  
451 Hegenberger-Oakland T0600102238

LL Sample # WW 7401558  
LL Group # 1461018  
Account # 10991

Project Name: 91851

Collected: 03/18/2014 15:10 by BW

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 03/20/2014 16:50

Reported: 04/01/2014 16:24

HRO05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles SW-846 8260B</b>						
10943	Benzene	71-43-2	N.D.	0.5	1	1
10943	Ethanol	64-17-5	N.D.	50	250	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	4	0.5	1	1
10943	Toluene	108-88-3	N.D.	0.5	1	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
<b>GC Volatiles SW-846 8015B</b>						
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1
<b>GC Petroleum SW-846 8015B</b>						
<b>Hydrocarbons w/Si</b>						
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	330	50	100	1
The reverse surrogate, capric acid, is present at <1%.						
<b>GC Petroleum SW-846 8015B modified</b>						
<b>Hydrocarbons w/Si</b>						
10006	Motor Oil C16-C36 w/Si Gel	n.a.	550	38	110	1
10006	Total TPH w/Si Gel	n.a.	550	38	110	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	UST VOCs by 8260B - Water	SW-846 8260B	1	F140892AA	03/30/2014 17:48	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F140892AA	03/30/2014 17:48	Brett W Kenyon	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14084A20A	03/26/2014 15:22	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14084A20A	03/26/2014 15:22	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	140800005A	03/28/2014 13:24	Glorines Suarez-Rivera	1
10006	TPH Fuels water w/Si Gel	SW-846 8015B modified	1	140800038A	03/25/2014 11:54	Heather E Williams	1
11180	Low Vol Ext (W) w/SG	SW-846 3510C	1	140800005A	03/22/2014 07:00	Roman Kuropatkin	1

\*=This limit was used in the evaluation of the final result

Sample Description: MW-5-W-140318 NA Groundwater  
 Facility# 91851 BTST  
 451 Hegenberger-Oakland T0600102238

LL Sample # WW 7401558  
 LL Group # 1461018  
 Account # 10991

Project Name: 91851

Collected: 03/18/2014 15:10 by BW

Chevron

6001 Bollinger Canyon Rd L4310  
 San Ramon CA 94583

Submitted: 03/20/2014 16:50

Reported: 04/01/2014 16:24

HRO05

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11195	TPH w/ Silica Gel Waters Ext.	SW-846 3510C	1	140800038A	03/24/2014 07:35	Olivia Arosemena	1

\*=This limit was used in the evaluation of the final result

Sample Description: QA-T-140318 NA Water  
Facility# 91851 BTST  
451 Hegenberger-Oakland T0600102238

LL Sample # WW 7401559  
LL Group # 1461018  
Account # 10991

Project Name: 91851

Collected: 03/18/2014 13:50

Chevron

Submitted: 03/20/2014 16:50

6001 Bollinger Canyon Rd L4310

Reported: 04/01/2014 16:24

San Ramon CA 94583

HROQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
<b>GC Volatiles</b>						
	<b>SW-846 8015B</b>		ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

### General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14084A20A	03/26/2014 11:19	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14084A20A	03/26/2014 11:19	Laura M Krieger	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: Chevron Group Number: 1461018  
Reported: 04/01/14 at 04:24 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: F140892AA	Sample number(s): 7401557-7401558								
Benzene	N.D.	0.5	1	ug/l	95		78-120		
Ethanol	N.D.	50.	250	ug/l	90		54-149		
Ethylbenzene	N.D.	0.5	1	ug/l	96		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	1	ug/l	101		75-120		
Toluene	N.D.	0.5	1	ug/l	96		80-120		
Xylene (Total)	N.D.	0.5	1	ug/l	90		80-120		
Batch number: 14084A20A	Sample number(s): 7401557-7401559								
TPH-GRO N. CA water C6-C12	N.D.	50.	100	ug/l	101	99	80-139	2	30
Batch number: 140800005A	Sample number(s): 7401557-7401558								
TPH-DRO CA C10-C28 w/ Si Gel	N.D.	32.	100	ug/l	83	76	43-120	9	20
Batch number: 140800038A	Sample number(s): 7401557-7401558								
Motor Oil C16-C36 w/Si Gel	N.D.	40.	120	ug/l					
Total TPH w/Si Gel	N.D.	40.	120	ug/l	57	46	35-120	21*	20

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: F140892AA	Sample number(s): 7401557-7401558 UNSPK: 7401558								
Benzene	98	105	72-134	7	30				
Ethanol	85	99	53-146	14	30				
Ethylbenzene	99	108	71-134	8	30				
Methyl Tertiary Butyl Ether	97	108	72-126	9	30				
Toluene	101	109	80-125	7	30				
Xylene (Total)	94	101	79-125	7	30				

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: Chevron  
Reported: 04/01/14 at 04:24 PM

Group Number: 1461018

### Surrogate Quality Control

Analysis Name: UST VOCs by 8260B - Water  
Batch number: F140892AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7401557	90	99	107	105
7401558	89	97	108	105
Blank	90	96	109	102
LCS	90	96	108	107
MS	92	98	108	106
MSD	89	100	107	108

Limits: 80-116                      77-113                      80-113                      78-113

Analysis Name: TPH-GRO N. CA water C6-C12  
Batch number: 14084A20A  
Trifluorotoluene-F

7401557	73
7401558	77
7401559	80
Blank	80
LCS	83
LCSD	81

Limits: 63-135

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel  
Batch number: 140800005A  
Orthoterphenyl

7401557	90
7401558	78
Blank	77
LCS	90
LCSD	78

Limits: 46-131

Analysis Name: TPH Fuels water w/Si Gel  
Batch number: 140800038A  
Chlorobenzene                      Orthoterphenyl

7401557	54	64
7401558	61	76
Blank	50	68
LCS	62	83
LCSD	50	66

Limits: 29-107                      43-114

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.





# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>µg</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>mL</b>	milliliter(s)	<b>L</b>	liter(s)
<b>m<sup>3</sup></b>	cubic meter(s)	<b>µL</b>	microliter(s)
		<b>pg/L</b>	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

**ppm** parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

**ppb** parts per billion

**Dry weight basis** Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

*Data Qualifiers:*

**C** – result confirmed by reanalysis.

**J** - estimated value – The result is  $\geq$  the Method Detection Limit (MDL) and  $<$  the Limit of Quantitation (LOQ).

*U.S. EPA CLP Data Qualifiers:*

**Organic Qualifiers**

**Inorganic Qualifiers**

<b>A</b>	TIC is a possible aldol-condensation product	<b>B</b>	Value is $<$ CRDL, but $\geq$ IDL
<b>B</b>	Analyte was also detected in the blank	<b>E</b>	Estimated due to interference
<b>C</b>	Pesticide result confirmed by GC/MS	<b>M</b>	Duplicate injection precision not met
<b>D</b>	Compound quantitated on a diluted sample	<b>N</b>	Spike sample not within control limits
<b>E</b>	Concentration exceeds the calibration range of the instrument	<b>S</b>	Method of standard additions (MSA) used for calculation
<b>N</b>	Presumptive evidence of a compound (TICs only)	<b>U</b>	Compound was not detected
<b>P</b>	Concentration difference between primary and confirmation columns $>$ 25%	<b>W</b>	Post digestion spike out of control limits
<b>U</b>	Compound was not detected	<b>*</b>	Duplicate analysis not within control limits
<b>X,Y,Z</b>	Defined in case narrative	<b>+</b>	Correlation coefficient for MSA $<$ 0.995

**Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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