



Olivia Skance  
Team Lead  
Marketing Business Unit

**Chevron Environmental  
Management Company**  
6101 Bollinger Canyon Road  
San Ramon, CA 94583  
Tel (925) 790-6521

November 21, 2011

**RECEIVED**

**8:25 am, Nov 23, 2011**

Alameda County  
Environmental Health

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

Re: Chevron Facility # 9-6991

Address: 2920 Castro Valley Boulevard, Castro Valley, California

I have reviewed the attached report titled Second Semi-Annual 2011 Groundwater Monitoring Report and dated November 21, 2011.

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.

Sincerely,

Olivia Skance  
Project Manager

Enclosure: Report



**CONESTOGA-ROVERS  
& ASSOCIATES**

10969 Trade Center Drive  
Rancho Cordova, California 95670  
Telephone: (916) 889-8900 Fax: (916) 889-8999  
[www.CRAworld.com](http://www.CRAworld.com)

November 21, 2011

Reference No. 611633

Mr. Mark Detterman, P.G., C.E.G.  
Alameda County Environmental Health (ACEH)  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: Second Semi-Annual 2011 Groundwater Monitoring Report  
Chevron Service Station 9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California  
Case No. RO0000475

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Dear Mr. Detterman:

Conestoga-Rovers & Associates (CRA) is submitting the attached *Groundwater Monitoring and Sampling Report* (report) to ACEH on behalf of Chevron Environmental Management Company (Chevron) for the site referenced above. The report (prepared by Gettler-Ryan Inc. and dated October 12, 2011) presents the results of the sampling of wells MW-2, MW-6, and MW-7 during third quarter 2011. Wells MW-1 and MW-4 are sampled annually during the first quarter, and wells MW-2, MW-6, and MW-7 are sampled semi-annually during the first and third quarters. Also attached are Figure 1 (Vicinity Map) showing the site location, and Figure 2 (Concentration Map) presenting the second semi-annual 2011 analytical results along with a rose diagram. The monitoring results during 2011 are discussed below.

During 2011, petroleum hydrocarbon concentrations in the wells were similar to or less than those observed during 2010. Low concentrations of total petroleum hydrocarbons as diesel (TPHd) (up to 360 micrograms per liter [ $\mu\text{g}/\text{L}$ ]) and gasoline (TPHg) (up to 420  $\mu\text{g}/\text{L}$ ) were detected in MW-7; the detected concentrations were significantly lower than those during 2010 and the lowest since at least the late-1990s. Low concentrations of methyl tertiary butyl ether (MTBE) (up to 14  $\mu\text{g}/\text{L}$ ) were also detected in MW-7; benzene, toluene, ethylbenzene, and xylenes (BTEX) were not detected. Until 2011, the TPHd and TPHg concentrations in MW-7 had remained relatively stable, while the MTBE concentrations continue to decrease overall and only low concentrations remain.

Only a low concentration of TPHd (180  $\mu\text{g}/\text{L}$ ) was detected in MW-1; the TPHd concentrations have fluctuated in this well. Low concentrations of TPHd (up to 570  $\mu\text{g}/\text{L}$ ) were also detected in MW-2; the concentrations were consistent with historical fluctuations. MTBE was detected in MW-2 up to 91  $\mu\text{g}/\text{L}$ ; the detected concentrations were slightly higher than those during 2010, but are decreasing overall. TPHg and BTEX generally have not been detected in MW-2 for

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November 21, 2011

Reference No. 611633

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several years. No petroleum hydrocarbons were detected in MW-4. Low concentrations of TPHd (150 µg/L), TPHg (340 µg/L), ethylbenzene (0.9 µg/L), xylenes (3 µg/L), and MTBE (1 µg/L) were detected in downgradient well MW-6. The detected TPHd, TPHg, and BTEX concentrations in MW-6 were consistent with historical fluctuations and have remained relatively stable and low, while the MTBE concentrations have steadily decreased.

Based on the analytical results, petroleum hydrocarbons remain in groundwater beneath the site in the area of the former and existing underground storage tanks (USTs) and former dispensers. However, the residual concentrations are low and are stable or decreasing. Only low concentrations are present in downgradient well MW-6, thus the plume appears adequately defined.

Based on the site conditions and analytical results, the site appears to be a good candidate for low-risk case closure. On July 29, 2011, CRA submitted a *Case Closure Request* and we are awaiting a response from ACEH to this document. In the meantime, monitoring and sampling will continue to further evaluate groundwater quality and concentration trends.



**CONESTOGA-ROVERS  
& ASSOCIATES**

November 21, 2011

Reference No. 611633

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Please contact Mr. James Kiernan at (916) 889-8917 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES



James P. Kiernan, P.E.

JK/aa/12

Encl.

Figure 1            Vicinity Map  
Figure 2            Concentration Map

Attachment A      Groundwater Monitoring and Sampling Report

cc:    Ms. Olivia Skance, Chevron (*electronic copy*)  
       K&K Petroleum, LLC

## FIGURES



SOURCE: TOPO! MAPS.

Figure 1

VICINITY MAP  
 CHEVRON SERVICE STATION 9-6991  
 2920 CASTRO VALLEY BOULEVARD  
*Castro Valley, California*



**LEGEND**

- SITE MONITORING WELL LOCATION
- 1990 EXCAVATION LIMITS
- WELL**
- TPHD CONCENTRATION (µg/L)
- TPHG CONCENTRATION (µg/L)
- BENZENE CONCENTRATION (µg/L)
- MTBE CONCENTRATION (µg/L)
- NS NOT SAMPLED
- SA SAMPLED ANNUALLY

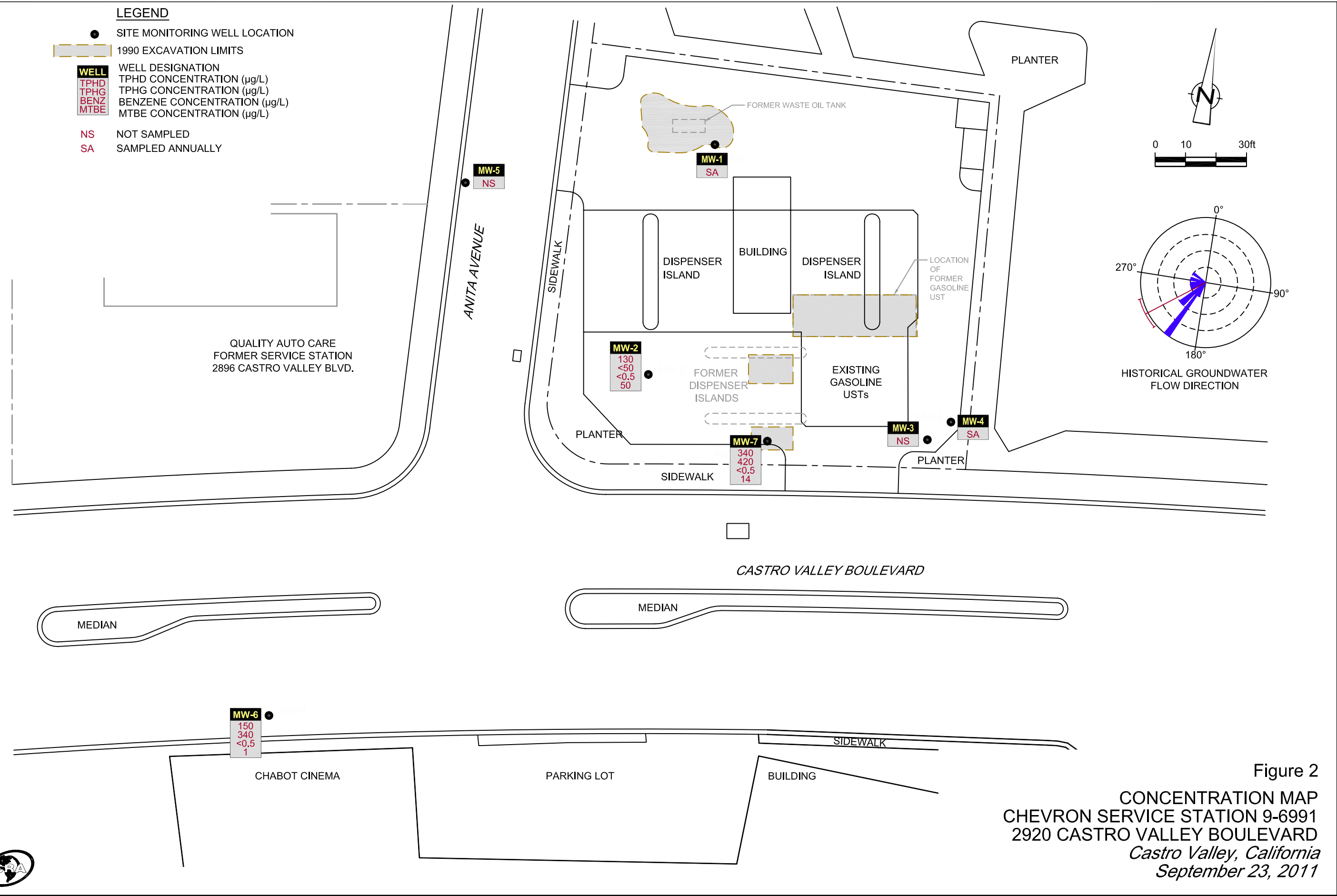


Figure 2  
 CONCENTRATION MAP  
 CHEVRON SERVICE STATION 9-6991  
 2920 CASTRO VALLEY BOULEVARD  
 Castro Valley, California  
 September 23, 2011



ATTACHMENT A

GROUNDWATER MONITORING AND SAMPLING REPORT





# GETTLER-RYAN INC.



October 12, 2011  
G-R Job #385296

Ms. Olivia Skance  
Chevron Environmental Management Company  
6101 Bollinger Canyon Road  
San Ramon, CA 94583

**RE: Second Semi-Annual Event of September 23, 2011**  
Groundwater Monitoring & Sampling Report  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

Dear Ms. Skance:

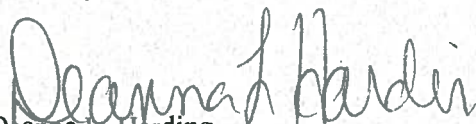
This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

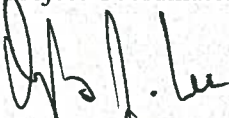
Static groundwater levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevations, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and the laboratory analytical reports are also attached. All groundwater and decontamination water generated during sampling activities was removed from the site, per the Standard Operating Procedure.

Please call if you have any questions or comments regarding this report. Thank you.

Sincerely,

  
Deanna L. Harding  
Project Coordinator

  
Douglas J. Lee  
Senior Geologist, P.G. No. 6882

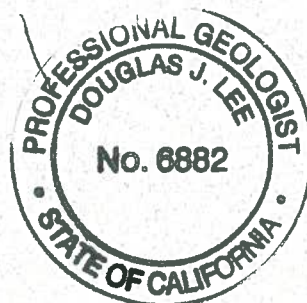
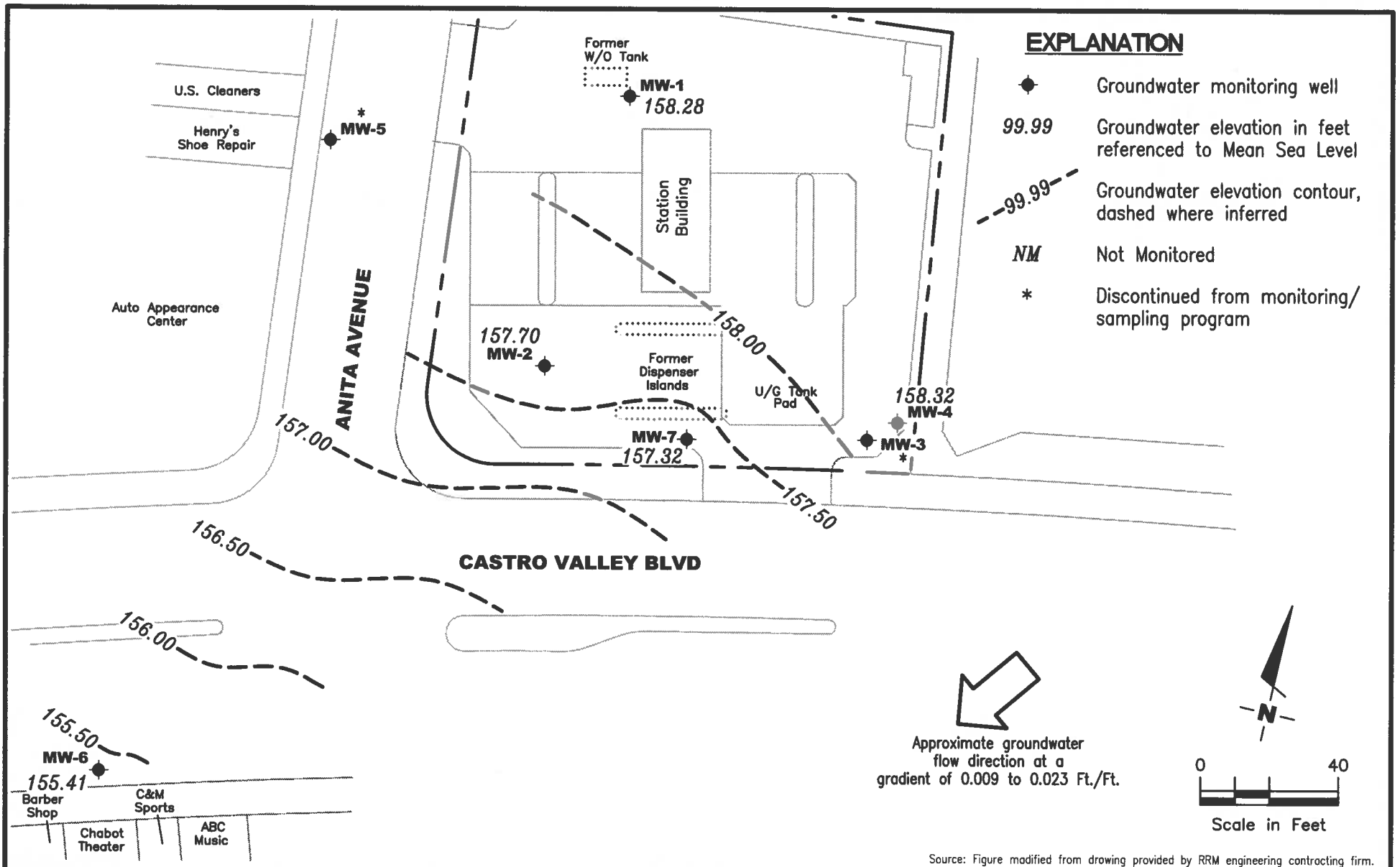


Figure 1: Potentiometric Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Table 2: Field Measurements and Analytical Results  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports



**GETTLER - RYAN INC.**  
 6747 Sierra Court, Suite J  
 Dublin, CA 94568 (925) 551-7555

**POTENTIOMETRIC MAP**  
 Chevron Service Station #9-6991  
 2920 Castro Valley Boulevard  
 Castro Valley, California

FIGURE  
**1**

PROJECT NUMBER  
**385296**

REVIEWED BY

DATE  
 September 23, 2011

REVISED DATE

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
<b>MW-1</b>												
10/08/91	169.30	158.20	11.10	--	230	45	<0.5	0.9	9.1	--	<5,000	--
11/04/91	169.30	158.27	11.03	--	340	120	<0.5	<0.5	6.1	--	--	--
12/04/91	169.30	158.25	11.05	170	<50	3.9	<0.5	<0.5	<0.5	--	<5,000	--
06/05/92	169.30	158.26	11.04	<50	100	26	0.6	0.5	1.0	--	--	--
10/27/92	169.30	158.20	11.10	54	<50	11	<0.5	<0.5	<0.5	--	--	--
12/30/92	169.30	--	--	170	<50	24	<0.5	<0.5	<0.5	--	--	--
01/27/93	169.30	158.67	10.63	--	--	--	--	--	--	--	--	--
03/05/93	169.30	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/17/93	169.30	158.59	10.71	--	--	--	--	--	--	--	--	--
06/18/93	169.30	158.29	11.01	<50	<50	0.6	<0.5	<0.5	<1.5	--	--	--
09/28/93	169.30	157.35	11.95	<50	<50	0.8	<0.5	<0.5	<1.5	--	--	--
12/30/93	169.30	158.34	10.96	<50	<50	8.5	<0.5	<0.5	<0.5	--	--	--
04/07/94	169.30	158.49	10.81	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/31/94	169.30	158.38	10.92	<50	<50	1.0	<0.5	<0.5	<0.5	--	--	--
09/23/94	169.30	158.40	10.90	<50	<50	1.3	<0.5	<0.5	<0.5	--	--	--
11/30/94	169.30	158.76	10.54	570 <sup>2</sup>	<50	8.9	<0.5	<0.5	<0.5	--	--	--
03/30/95	169.30	158.60	10.70	110 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/06/95	169.30	158.38	10.92	570 <sup>1</sup>	61	15	<0.5	<0.5	<0.5	--	--	--
09/25/95	169.30	158.30	11.00	550 <sup>1</sup>	<50	4.7	<0.5	<0.5	<0.5	--	--	--
12/28/95	169.30	158.50	10.80	330 <sup>1</sup>	72	9.1	0.65	<0.5	<0.5	6.0	--	--
03/05/96	169.30	159.20	10.10	780 <sup>1</sup>	<50	7.8	<0.5	<0.5	<0.5	<2.5	--	--
09/13/96	169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--	--
12/19/96	169.30	158.08	11.22	--	--	--	--	--	--	--	--	--
03/20/97	169.30	158.40	10.90	350 <sup>1</sup>	<50	2.2	<0.5	<0.5	<0.5	<2.5	--	--
06/27/97	169.30	158.27	11.03	--	--	--	--	--	--	--	--	--
09/19/97	169.30	158.34	10.96	--	--	--	--	--	--	--	--	--
12/05/97	169.30	158.62	10.68	--	--	--	--	--	--	--	--	--
03/31/98	169.30	158.67	10.63	760 <sup>1</sup>	<50	6.7	<0.5	<0.5	<0.5	<2.5	--	--
06/19/98	169.30	159.62	9.68	--	--	--	--	--	--	--	--	--
08/13/98	169.30	157.67	11.63	--	--	--	--	--	--	--	--	--
12/17/98	169.30	158.25	11.05	--	--	--	--	--	--	--	--	--
03/19/99	169.30	158.35	10.95	890 <sup>1</sup>	124	14.8	<0.5	<0.5	<0.5	6.49/<2.5 <sup>13</sup>	--	--
06/23/99	169.30	158.23	11.07	--	--	--	--	--	--	--	--	--
09/16/99	169.30	158.41	10.89	--	--	--	--	--	--	--	--	--
12/16/99	169.30	158.46	10.84	--	--	--	--	--	--	--	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
<b>MW-1 (cont)</b>												
03/02/00	169.30	158.83	10.47	2,300 <sup>1</sup>	155	10.4	<0.5	<0.5	<0.5	10.3	--	--
06/30/00	169.30	159.04	10.26	--	--	--	--	--	--	--	--	--
09/30/00	NP	169.30	158.30	11.00	--	--	--	--	--	--	--	--
12/19/00		169.30	158.44	10.86	--	--	--	--	--	--	--	--
03/13/01	NP	169.30	158.45	10.85	-- <sup>14</sup>	50.4	4.50	0.553	0.522	2.10	1.65	--
06/12/01		169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--
09/18/01		169.30	158.23	11.07	SAMPLED ANNUALLY		--	--	--	--	--	--
12/17/01		169.30	158.59	10.71	SAMPLED ANNUALLY		--	--	--	--	--	--
03/21/02		169.30	158.54	10.76	-- <sup>14</sup>	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
06/08/02		169.30	158.33	10.97	SAMPLED ANNUALLY		--	--	--	--	--	--
09/13/02		169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--
12/13/02		169.30	158.47	10.83	SAMPLED ANNUALLY		--	--	--	--	--	--
03/17/03		169.30	158.60	10.70	250	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
06/16/03		169.30	158.34	10.96	SAMPLED ANNUALLY		--	--	--	--	--	--
09/15/03		169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--
12/15/03		169.30	158.71	10.59	SAMPLED ANNUALLY		--	--	--	--	--	--
03/01/04		169.30	158.78	10.52	NOT SAMPLED DUE TO INSUFFICIENT WATER			--	--	--	--	--
06/28/04		169.30	158.27	11.03	SAMPLED ANNUALLY		--	--	--	--	--	--
09/13/04		169.30	156.96	12.34	SAMPLED ANNUALLY		--	--	--	--	--	--
12/22/04		169.30	158.38	10.92	SAMPLED ANNUALLY		--	--	--	--	--	--
03/04/05		169.30	158.81	10.49	NOT SAMPLED DUE TO INSUFFICIENT WATER			--	--	--	--	--
06/30/05		169.30	158.54	10.76	SAMPLED ANNUALLY		--	--	--	--	--	--
09/16/05		169.30	158.33	10.97	SAMPLED ANNUALLY		--	--	--	--	--	--
12/21/05		169.30	158.70	10.60	--	--	--	--	--	--	--	--
03/21/06 <sup>16</sup>		169.30	158.93	10.37	1,100	<50	0.6	<0.5	<0.5	<0.5	1	<50
06/21/06		169.30	158.37	10.93	SAMPLED ANNUALLY		--	--	--	--	--	--
09/05/06		169.30	158.32	10.98	SAMPLED ANNUALLY		--	--	--	--	--	--
12/28/06		169.30	157.52	11.78	SAMPLED ANNUALLY		--	--	--	--	--	--
03/26/07 <sup>16</sup>		169.30	158.39	10.91	730	<50	0.6	<0.5	<0.5	<0.5	<0.5	<50
06/26/07		169.30	158.30	11.00	SAMPLED ANNUALLY		--	--	--	--	--	--
09/26/07		169.30	158.26	11.04	SAMPLED ANNUALLY		--	--	--	--	--	--
12/20/07		169.30	158.66	10.64	SAMPLED ANNUALLY		--	--	--	--	--	--
02/29/08 <sup>16</sup>	PER	169.30	158.57	10.73	64	87	4	<0.5	<0.5	<0.5	1	<50
05/09/08		169.30	158.38	10.92	SAMPLED ANNUALLY		--	--	--	--	--	--
09/19/08		169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
<b>MW-1 (cont)</b>												
12/04/08	169.30	158.28	11.02	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/05/09 <sup>16</sup>	PER-NP <sup>23</sup>	169.30	159.10	10.20	77	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50
06/23/09		169.30	158.36	10.94	SAMPLED ANNUALLY		--	--	--	--	--	--
09/01/09		169.30	158.26	11.04	SAMPLED ANNUALLY		--	--	--	--	--	--
03/16/10 <sup>16</sup>	PER	169.30	158.75	10.55	1,200	70	3	<0.5	<0.5	<0.5	1	--
09/21/10		169.30	158.20	11.10	SAMPLED ANNUALLY		--	--	--	--	--	--
03/23/11 <sup>16</sup>	PER	169.30	159.02	10.28	180	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
<b>09/23/11</b>		<b>169.30</b>	<b>158.28</b>	<b>11.02</b>	<b>SAMPLED ANNUALLY</b>		--	--	--	--	--	--
<b>MW-2</b>												
10/08/91	169.15	157.20	11.95	--	110	5.1	1.1	0.8	26	--	--	--
11/19/91	169.15	157.40	11.75	--	120	11	1.1	<0.5	17	--	--	--
12/04/91	169.15	157.35	11.80	130	440	30	2.5	<0.5	52	--	--	--
06/05/92	169.15	157.35	11.80	130	80	13	<0.5	<0.5	1.0	--	--	--
10/27/92	169.15	157.15	12.00	110	54	13	<0.5	<0.5	<0.5	--	--	--
12/30/92	169.15	--	--	92	180	30	<0.5	<0.5	1.0	--	--	--
01/27/93	169.15	158.24	10.91	--	--	--	--	--	--	--	--	--
03/05/93	169.15	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/17/93	169.15	158.26	10.89	--	--	--	--	--	--	--	--	--
06/18/93	169.15	157.41	11.74	<50	<50	1.4	<0.5	<0.5	<1.5	--	--	--
09/28/93	169.15	157.97	11.18	<50	<50	0.6	<0.5	<0.5	<1.5	--	--	--
12/30/93	169.15	158.34	21.00	<50	<50	0.9	<0.5	<0.5	<0.5	--	--	--
04/07/94	169.15	158.40	10.75	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/31/94	169.15	158.35	10.80	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/23/94	169.15	157.50	11.65	120	<50	0.7	<0.5	<0.5	<0.5	--	--	--
11/30/94	169.15	158.41	10.74	570 <sup>4</sup>	55	2.9	<0.5	1.4	0.94	--	--	--
03/30/95	169.15	158.25	10.90	430 <sup>1</sup>	91	4.5	<0.5	3.8	<0.5	--	--	--
06/06/95	169.15	157.73	11.42	410 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/25/95	169.15	157.52	11.63	220 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/28/95	169.15	157.98	11.17	120 <sup>1</sup>	<2,000	<20	<20	<20	<20	5,000	--	--
03/05/96	169.15	159.09	10.06	860 <sup>1</sup>	<2,000	<20	<20	<20	<20	10,000	--	--
09/13/96	169.15	157.37	11.78	1,300	1,100	25	<10	<10	<10	20,000	--	--
12/19/96	169.15	158.30	10.85	SAMPLED SEMI-ANNUALLY		--	--	--	--	--	--	--
03/20/97	169.15	157.75	11.40	190 <sup>1</sup>	2400	<10	<10	46	<10	6,200	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TOC ( <i>fl.</i> )	GWE ( <i>mst.</i> )	DTW ( <i>fl.</i> )	TPH-DRO ( <i>ug/L.</i> )	TPH-GRO ( <i>ug/L.</i> )	B ( <i>ug/L.</i> )	T ( <i>ug/L.</i> )	E ( <i>ug/L.</i> )	X ( <i>ug/L.</i> )	MTBE ( <i>ug/L.</i> )	TOG ( <i>ug/L.</i> )	ETHANOL ( <i>ug/L.</i> )
<b>MW-2 (cont)</b>												
06/27/97	169.15	157.35	11.80	--	--	--	--	--	--	--	--	--
09/19/97	169.15	157.43	11.72	60 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	280	--	--
12/08/97	169.15	158.27	10.88	--	--	--	--	--	--	--	--	--
03/31/98	169.15	158.46	10.69	220 <sup>1</sup>	110	30	0.74	0.74	0.59	1,000	--	--
06/19/98	169.15	159.31	9.84	--	--	--	--	--	--	--	--	--
08/31/98	169.15	157.43	11.72	380 <sup>1</sup>	<100	3.4	<1.0	<1.0	<1.0	980	--	--
12/17/98	169.15	157.60	11.55	--	--	--	--	--	--	480	--	--
03/19/99	169.15	158.63	10.52	107 <sup>4</sup>	<250	12.7	<2.5	<2.5	<2.5	1,040/819 <sup>13</sup>	--	--
06/23/99	169.15	159.61	9.54	--	--	--	--	--	--	--	--	--
09/16/99	169.15	157.54	11.61	84.9	<100	<1.0	<1.0	<1.0	<1.0	216	--	--
12/16/99	169.15	157.86	11.29	--	--	--	--	--	--	--	--	--
03/02/00	169.15	158.70	10.45	<50	84.8	21.5	<0.5	<0.5	0.636	413	--	--
06/30/00	169.15	159.08	10.07	--	--	--	--	--	--	--	--	--
09/30/00	NP	169.15	157.54	11.61	100 <sup>11</sup>	<50	<0.50	0.57	<0.50	1.0	2,800	--
12/19/00		169.15	158.04	11.11	--	--	--	--	--	--	--	--
03/13/01	NP	169.15	158.22	10.93	-- <sup>14</sup>	179	11.6	2.01	0.856	3.66	1,290	--
06/12/01		169.15	157.52	11.63	--	--	--	--	--	--	--	--
09/18/01	NP	169.15	157.37	11.78	100	<50	<0.50	<0.50	<0.50	<1.5	670	--
12/17/01		169.15	158.29	10.86	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
09/13/02		169.15	157.50	11.65	200	<50	<0.50	<0.50	<0.50	<1.5	260	--
12/13/02		169.15	158.07	11.08	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
03/17/03		169.15	158.38	10.77	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--
06/16/03		169.15	157.77	11.38	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
09/15/03 <sup>16,17</sup>		169.15	157.55	11.60	110	<50	<0.5	<0.5	<0.5	0.6	400	--
12/15/03		169.15	158.40	10.75	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
03/01/04		169.15	158.49	10.66	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--
06/28/04		169.15	157.63	11.52	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
09/13/04		169.15	156.27	12.88	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--
12/22/04		169.15	157.93	11.22	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
03/04/05		169.15	158.58	10.57	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--
06/30/05		169.15	158.08	11.07	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
09/16/05 <sup>16</sup>	NP	169.15	156.64	12.51	130	<50	<0.5	<0.5	<0.5	<0.5	140	<50
12/21/05		169.15	158.41	10.74	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
03/21/06 <sup>16</sup>		169.15	158.74	10.41	72	<50	<0.5	<0.5	<0.5	<0.5	530	<50
06/21/06		169.15	157.64	11.51	SAMPLED SEMI-ANNUALLY			--	--	--	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
<b>MW-2 (cont)</b>												
09/05/06 <sup>16</sup>	169.15	157.51	11.64	620	<50	<0.5	<0.5	<0.5	<0.5	150	--	<50
12/28/06	169.15	158.19	10.96	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
03/26/07 <sup>16</sup>	169.15	157.74	11.41	86	<50	<0.5	<0.5	<0.5	<0.5	160	--	<50
06/26/07	169.15	157.60	11.55	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
09/26/07 <sup>16</sup>	169.15	157.52	11.63	140	<50	<0.5	<0.5	<0.5	<0.5	69	--	<50
12/20/07	169.15	158.50	10.65	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
02/29/08 <sup>16</sup>	PER	169.15	158.18	10.97	73	<50	<0.5	<0.5	<0.5	54	--	<50
05/09/08		169.15	157.74	11.41	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
09/19/08	PER	169.15	157.48	11.67	120	<50	<0.5	<0.5	<0.5	12	--	<50
12/04/08		169.15	157.67	11.48	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
03/05/09 <sup>16</sup>	PER-NP <sup>23</sup>	169.15	158.65	10.50	<50	<50	<0.5	<0.5	<0.5	55	--	<50
06/23/09		169.15	157.65	11.50	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
09/01/09 <sup>16</sup>	PER	169.15	157.55	11.60	75	<50	<0.5	<0.5	<0.5	10	--	--
03/16/10 <sup>16</sup>	PER	169.15	158.50	10.65	120 <sup>24</sup>	<50	<0.5	<0.5	<0.5	23	--	--
09/21/10 <sup>16</sup>	PER	169.15	157.67	11.48	84	<50	1	<0.5	<0.5	32	--	--
03/23/11 <sup>16</sup>	PER	169.15	158.97	10.18	570	<50	<0.5	<0.5	<0.5	91	--	--
09/23/11 <sup>16</sup>	PER	169.15	157.70	11.45	130	<50	<0.5	<0.5	<0.5	50	--	--
<b>MW-4</b>												
10/27/92	169.18	157.79	11.39	<50	<50	<0.5	0.6	0.5	4.3	--	--	--
12/30/92	169.18	159.05	10.13	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
01/27/93	169.18	160.09	9.09	--	--	--	--	--	--	--	--	--
03/05/93	169.18	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/17/93	169.18	159.28	9.90	--	--	--	--	--	--	--	--	--
06/18/93	169.18	158.50	10.68	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--	--
09/28/93	169.18	159.82	9.36	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--	--
12/30/93	169.18	159.91	9.27	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
04/07/94	169.18	160.37	8.81	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/31/94	169.18	160.27	8.91	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/23/94	169.18	158.79	10.39	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
11/30/94	169.18	160.08	9.10	58 <sup>2</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/30/95	169.18	160.66	8.52	61 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/06/95	169.18	158.70	10.48	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/25/95	169.18	158.38	10.80	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--

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Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TOC (fl.)	GWE (msl)	DTW (fl.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
<b>MW-4 (cont)</b>												
12/28/95	169.18	159.23	9.95	<50	<50	<0.5	<0.5	<0.5	<0.5	9.9	--	--
12/21/05 <sup>16</sup>	169.18	159.65	9.53	76 <sup>18</sup>	<50	<0.5	<0.5	<0.5	<0.5	0.7	--	<50
03/21/06 <sup>16</sup>	169.18	160.35	8.83	<50	<50	<0.5	<0.5	<0.5	<0.5	0.5	--	<50
06/21/06 <sup>16</sup>	169.18	158.55	10.63	<50	<50	<0.5	<0.5	<0.5	<0.5	0.8	--	<50
09/05/06 <sup>16</sup>	169.18	158.24	10.94	170	<50	<0.5	<0.5	<0.5	<0.5	1	--	<50
12/28/06 <sup>16</sup>	169.18	159.06	10.12	120	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50
03/26/07 <sup>16</sup>	169.18	158.73	10.45	290	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50
06/26/07 <sup>16</sup>	169.18	158.22	10.96	<50	<50	<0.5	<0.5	<0.5	<0.5	1	--	<50
09/26/07 <sup>16</sup>	169.18	157.98	11.20	<50	<50	<0.5	<0.5	<0.5	<0.5	0.8	--	<50
12/20/07 <sup>16</sup>	169.18	159.01	10.17	62	<50	<0.5	<0.5	<0.5	<0.5	0.5	--	<50
02/29/08 <sup>16</sup>	169.18	159.32	9.86	180	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50
05/09/08 <sup>16</sup>	169.18	158.41	10.77	80	<50	<0.5	<0.5	<0.5	<0.5	0.6	--	<50
09/19/08 <sup>16</sup>	169.18	157.97	11.21	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50
12/04/08 <sup>16</sup>	169.18	158.20	10.98	58	<50	<0.5	<0.5	<0.5	<0.5	0.8	--	<50
03/05/09 <sup>16</sup>	169.18	159.36	9.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50
06/23/09	169.18	158.45	10.73	SAMPLED ANNUALLY		--	--	--	--	--	--	--
09/01/09	169.18	158.10	11.08	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/16/10 <sup>16</sup>	169.18	159.81	9.37	60 <sup>25</sup>	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/21/10	169.18	158.06	11.12	SAMPLED ANNUALLY		--	--	--	--	--	--	--
03/23/11 <sup>16</sup>	169.18	160.39	8.79	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
<b>09/23/11</b>	<b>169.18</b>	<b>158.32</b>	<b>10.86</b>	<b>SAMPLED ANNUALLY</b>		--	--	--	--	--	--	--
<b>MW-6</b>												
10/27/92	166.46	153.92	12.54	<50	600	22	22	24	130	--	--	--
12/30/92	166.46	156.26	10.20	470	1,700	170	16	46	160	--	--	--
01/27/93	166.46	156.44	10.02	--	--	--	--	--	--	--	--	--
03/05/93	166.46	--	--	150	480	76	0.9	3.1	7.1	--	--	--
03/17/93	166.46	155.79	10.67	--	--	--	--	--	--	--	--	--
06/18/93	166.46	154.63	11.83	51	240	37	3.4	2.9	18	--	--	--
09/28/93	166.46	154.90	11.56	120	150	11	1.2	1.3	4.3	--	--	--
12/30/93	166.46	154.81	11.65	290	680	77	5.1	5.5	13	--	--	--
04/07/94	166.46	155.34	11.12	<10	190	24	2.9	1.9	8.0	--	--	--
05/31/94	166.46	--	--	--	--	--	--	--	--	--	--	--
09/23/94	166.46	155.05	11.41	--	--	--	--	--	--	--	--	--



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WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)	
<b>MW-6 (cont)</b>													
11/30/94	166.46	156.58	9.88	150 <sup>2</sup>	320	49	0.58	1.4	1.2	--	--	--	
12/15/03 <sup>16</sup>	166.46	156.60	9.86	71	210	0.5	0.9	0.7	2	14	--	<50	
03/01/04 <sup>16,21</sup>	166.46	157.16	9.30	<250	150	<0.5	4	3	18	10	--	<50	
06/28/04 <sup>16,21</sup>	166.46	155.13	11.33	66	100	<0.5	<0.5	<0.5	<0.5	18	--	--	
09/13/04 <sup>16,21</sup>	166.46	154.88	11.58	<50	<50	<0.5	<0.5	<0.5	<0.5	17	--	<50	
12/22/04 <sup>16,21</sup>	166.46	155.75	10.71	300	440	1	1	2	3	10	--	<50	
03/04/05 <sup>16,21</sup>	166.46	157.25	9.21	75	65	<0.5	<0.5	<0.5	1	8	--	<50	
06/30/05 <sup>16,21</sup>	166.46	155.49	10.97	73	<50	<0.5	<0.5	<0.5	<0.5	7	--	<50	
09/16/05 <sup>16,21</sup>	166.46	155.02	11.44	58 <sup>17</sup>	<50	<0.5	<0.5	<0.5	<0.5	13	--	<50	
12/21/05 <sup>16,21</sup>	166.46	156.66	9.80	120 <sup>19</sup>	140	<0.5	<0.5	<0.5	1	8	--	<50	
03/21/06 <sup>16,21</sup>	166.46	157.54	8.92	75	52	<0.5	<0.5	0.9	3	8	--	<50	
06/21/06 <sup>16,21</sup>	166.46	155.38	11.08	56	92	<0.5	<0.5	0.5	2	10	--	<50	
09/05/06 <sup>16,21</sup>	166.46	155.07	11.39	67	62	<0.5	<0.5	<0.5	<0.5	9	--	<50	
12/28/06 <sup>16,21</sup>	166.46	156.32	10.14	300	260	<0.5	0.5	<0.5	1	3	--	<50	
03/26/07 <sup>21</sup>	166.46	INACCESSIBLE - VEHICLE PARKED OVER WELL					--	--	--	--	--	--	--
06/26/07 <sup>16</sup>	166.46	155.32	11.14	67	<50	<0.5	<0.5	<0.5	<0.5	8	--	<50	
09/26/07 <sup>16</sup>	166.46	155.02	11.44	84	180	<0.5	0.5	3	5	6	--	--	
12/20/07 <sup>16</sup>	166.46	156.41	10.05	220	530	<0.5	0.7	1	7	2	--	-- <sup>22</sup>	
02/29/08 <sup>16</sup>	166.46	156.49	9.97	110	110	<0.5	<0.5	1	4	4	--	<50	
05/09/08 <sup>16</sup>	166.46	155.19	11.27	100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	<50	
09/19/08 <sup>16</sup>	166.46	154.85	11.61	<50	<50	<0.5	<0.5	<0.5	<0.5	5	--	<50	
12/04/08 <sup>16</sup>	166.46	155.08	11.38	<50	<50	<0.5	<0.5	<0.5	<0.5	5	--	<50	
03/05/09 <sup>16</sup>	166.46	157.57	8.89	140	160	<0.5	<0.5	1	7	2	--	<50	
06/23/09	166.46	155.14	11.32	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--	
09/01/09 <sup>16</sup>	166.46	154.82	11.64	52	<50	<0.5	<0.5	<0.5	<0.5	5	--	--	
03/16/10 <sup>16</sup>	166.46	156.78	9.68	76 <sup>25</sup>	100	<0.5	<0.5	0.7	7	0.7	--	--	
09/21/10 <sup>16</sup>	166.46	154.98	11.48	51	<50	<0.5	<0.5	<0.5	<0.5	3	--	--	
03/23/11	166.46	INACCESSIBLE - VEHICLE PARKED OVER WELL					--	--	--	--	--	--	--
<b>09/23/11<sup>16</sup></b>	<b>166.46</b>	<b>155.41</b>	<b>11.05</b>	<b>150</b>	<b>340</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>0.9</b>	<b>3</b>	<b>1</b>	--	--	
<b>MW-7</b>													
09/25/95	168.80	157.20	11.60	1,400 <sup>1</sup>	220	0.79	<0.5	0.67	<0.5	--	--	--	
12/28/95	168.80	158.14	10.66	590 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	
03/05/96	168.80	159.74	9.06	320 <sup>1</sup>	1,400	<10	<10	47	<10	5,300	--	--	

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Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TQC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
<b>MW-7 (cont)</b>												
06/27/96	168.80	157.27	11.53	630 <sup>1</sup>	<2,500	<25	<25	<25	<25	14,000	--	--
09/13/96	168.80	156.88	11.92	1,400	1,100	26	<10	24	<10	20,000	--	--
12/19/96	168.80	158.29	10.51	1,100 <sup>3</sup>	<5,000	<50	<50	<50	<50	12,000	--	--
03/20/97	168.80	157.84	10.96	1,600 <sup>3</sup>	<1,000	<10	<10	<10	<10	2,100/2,000 <sup>13</sup>	--	--
06/27/97	168.80	157.02	11.78	1,600 <sup>1</sup>	2,000	<20	<20	<20	<20	11,000	--	--
09/19/97	168.80	156.87	11.93	1,900 <sup>1</sup>	<1,000	35	<10	<10	<10	13,000	--	--
12/05/97	168.80	158.40	10.40	1,100 <sup>1</sup>	2,100	47	2.7	28	<2.5	15,000	--	--
03/31/98	168.80	158.89	9.91	780 <sup>1</sup>	410	4.0	0.61	2.2	<0.5	<2.5	--	--
06/19/98	168.80	159.09	9.71	480 <sup>1</sup>	1,100	16	<10	17	<10	12,000	--	--
08/31/98	168.80	157.11	11.69	580 <sup>1</sup>	<500	350	22	<5.0	<5.0	47,000	--	--
12/17/98	168.80	157.70	11.10	970	1,800	<10	<10	24	<10	13,000/14,000 <sup>13</sup>	--	--
03/19/99	168.80	158.51	10.29	615 <sup>1</sup>	1,280	<5.0	5.0	16.3	<5.0	2,240/2,910 <sup>13</sup>	--	--
06/23/99	168.80	157.25	11.55	1,240 <sup>1</sup>	<5,000	<50	<50	<50	<50	18,000	--	--
09/16/99	168.80	157.31	11.49	2,230	<5,000	<50	<50	<50	<50	13,700	--	--
12/16/99	168.80	158.27	10.53	973 <sup>1</sup>	1,330	<1.0	6.44	14	5.17	10,800	--	--
03/02/00	168.80	159.25	9.55	880 <sup>1</sup>	1,980	7.22	<5.0	6.11	<5.0	4,230	--	--
06/30/00	168.80	157.68	11.12	620 <sup>7</sup>	2,500 <sup>6</sup>	6.0	8.5	16	72	6,900	--	--
09/30/00	NP	157.23	11.57	1,600 <sup>7</sup>	1,700 <sup>10</sup>	750	<5.0	<5.0	<5.0	7,300	--	--
12/19/00		158.26	10.54	1,100 <sup>12</sup>	1,800 <sup>10</sup>	<10	<10	<10	<10	4,900	--	--
03/13/01		158.74	10.06	1,500 <sup>12</sup>	1,470	9.34	5.09	6.08	2.69	2,920	--	--
06/12/01		157.45	11.35	910 <sup>15</sup>	920 <sup>10</sup>	260	4.2	9.7	2.8	4,500	--	--
09/18/01		156.87	11.93	3,000	2,000	<0.50	<0.50	<0.50	<1.5	5,300	--	--
12/17/01		157.99	10.81	7,000	1,700	<5.0	<0.50	7.1	<1.5	4,100	--	--
03/21/02		158.56	10.24	13,000	3,200	<5.0	<0.50	24	<1.5	980	--	--
06/08/02		157.32	11.48	3,500	1,500	3.6	<0.50	8.5	<1.5	2,800	--	--
09/13/02		157.02	11.78	2,400	1,200	1.8	<1.0	2.8	<1.5	3,300	--	--
12/13/02		157.97	10.83	3,400	1,100	2.4	<0.50	2.3	<1.5	2,000	--	--
03/17/03		158.71	10.09	3,700	1,600	<10	<0.50	5.1	<1.5	1,000	--	--
06/16/03 <sup>16</sup>		157.81	10.99	4,400	2,500	1	0.5	14	<0.5	260	--	--
09/15/03 <sup>16</sup>		157.38	11.42	4,700	1,700	1	<0.5	6	0.5	790	--	<50
12/15/03 <sup>16</sup>		158.58	10.22	3,200	610	<0.5	<0.5	1	<0.5	780	--	<50
03/01/04 <sup>16</sup>		159.19	9.61	2,200	1,500	<0.5	<0.5	4	<0.5	16	--	<50
06/28/04 <sup>16</sup>		157.38	11.42	3,700	2,500	2	<0.5	8	<0.5	300	--	--
09/13/04 <sup>16</sup>		156.78	12.02	2,000	2,000	1	<1	4	<1	700	--	<100
12/22/04 <sup>16</sup>		158.39	10.41	1,300	970	0.8	<0.5	5	<0.5	370	--	<50

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TOC (fl.)	GWE (mst)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
<b>MW-7 (cont)</b>												
03/04/05 <sup>16</sup>	168.80	159.12	9.68	890	790	<0.5	<0.5	1	<0.5	5	--	<50
06/30/05 <sup>16</sup>	168.80	157.63	11.17	2,600	1,300	<0.5	<0.5	3	<0.5	68	--	<50
09/16/05 <sup>16</sup>	168.80	157.29	11.51	1,300	1,200	<0.5	<0.5	1	<0.5	380	--	<50
12/21/05 <sup>16</sup>	168.80	158.74	10.06	1,600 <sup>20</sup>	1,300	<0.5	<0.5	2	<0.5	170	--	<50
03/21/06 <sup>16</sup>	168.80	159.28	9.52	2,800	810	<0.5	<0.5	<0.5	<0.5	200	--	<50
06/21/06 <sup>16</sup>	168.80	157.35	11.45	1,100	1,800	0.5	<0.5	2	<0.5	260	--	<50
09/05/06 <sup>16</sup>	168.80	157.01	11.79	2,100	910	<0.5	<0.5	<0.5	<0.5	370	--	<50
12/28/06 <sup>16</sup>	168.80	158.34	10.46	7,200	2,700	0.5	<0.5	3	<0.5	140	--	<50
03/26/07 <sup>16</sup>	168.80	157.46	11.34	6,500	1,300	<0.5	<0.5	1	<0.5	150	--	<50
06/26/07 <sup>16</sup>	168.80	157.15	11.65	2,100	1,900	0.6	<0.5	2	<0.5	170	--	<50
09/26/07 <sup>16</sup>	168.80	156.98	11.82	2,200	670	<0.5	<0.5	<0.5	<0.5	420	--	<50
12/20/07 <sup>16</sup>	168.80	158.23	10.57	4,300	2,600	0.8	<0.5	4	<0.5	130	--	<50
02/29/08 <sup>15</sup>	168.80	158.56	10.24	2,400	1,400	<0.5	<0.5	2	<0.5	35	--	<50
05/09/08 <sup>16</sup>	168.80	157.27	11.53	1,700	2,200	0.6	0.6	2	<0.5	76	--	<50
09/19/08 <sup>16</sup>	168.80	156.86	11.94	10,000	610	<0.5	<0.5	<0.5	<0.5	430	--	<50
12/04/08 <sup>16</sup>	168.80	157.16	11.64	3,000	1,100	<0.5	<0.5	<0.5	<0.5	440	--	<50
03/05/09 <sup>16</sup>	168.80	159.46	9.34	1,000	2,100	<0.5	<0.5	3	<0.5	57	--	<50
06/23/09 <sup>16</sup>	168.80	157.41	11.39	2,300	1,800	<0.5	<0.5	1	<0.5	100	--	--
09/01/09 <sup>16</sup>	168.80	156.88	11.92	6,800	2,100	<0.5	<0.5	1	<0.5	150	--	--
03/16/10 <sup>16</sup>	168.80	158.99	9.81	5,500	1,700	<0.5	<0.5	2	<0.5	9	--	--
09/21/10 <sup>16</sup>	168.80	157.19	11.61	1,200	2,800	<0.5	<0.5	0.7	<0.5	16	--	--
03/23/11 <sup>16</sup>	168.80	159.59	9.21	360	76	<0.5	<0.5	<0.5	<0.5	0.6	--	--
<b>09/23/11<sup>16</sup></b>	<b>168.80</b>	<b>157.32</b>	<b>11.48</b>	<b>340</b>	<b>420</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>14</b>	<b>--</b>	<b>--</b>
<b>MW-3</b>												
10/08/91	169.11	160.84	8.27	--	81	1.9	0.7	0.8	2.4	--	--	--
11/04/91	169.11	158.26	10.85	--	60	<0.5	<0.5	<0.5	<0.5	--	--	--
12/04/91	169.11	158.06	11.05	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/05/92	169.11	157.96	11.15	170	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
10/27/92	169.11	157.51	11.60	120	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/30/92	169.11	--	--	170	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
01/27/93	169.11	160.00	9.11	--	--	--	--	--	--	--	--	--
03/05/93	169.11	--	--	--	--	--	--	--	--	--	--	--
03/17/93	169.11	159.16	9.95	--	--	--	--	--	--	--	--	--

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Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (mst)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)	
<b>MW-3 (cont)</b>													
06/18/93	169.11	158.22	10.89	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--	--	
09/28/93	169.11	159.49	9.62	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--	--	
12/30/93	169.11	159.80	9.31	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
04/07/94	169.11	160.30	8.81	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
05/31/94	169.11	160.21	8.90	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
09/23/94	169.11	158.48	10.63	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
11/30/94	169.11	160.19	8.92	--	--	--	--	--	--	--	--	--	
03/30/95	169.11	160.01	9.10	290 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
06/06/95	169.11	158.79	10.32	150 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
09/25/95	169.11	158.11	11.00	260 <sup>1</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
12/28/95	169.11	158.96	10.15	200 <sup>1</sup>	<250	<2.5	<2.5	<2.5	<2.5	1,400	--	--	
12/17/98	169.11	158.86	10.25	130 <sup>1</sup>	<250	<2.5	<2.5	<2.5	<2.5	62,000	--	--	
03/19/99	169.11	159.37	9.74	139 <sup>1</sup>	<1,000	<10	<10	<10	<10	5,650/5,850 <sup>13</sup>	--	--	
06/23/99	169.11	158.40	10.71	61.6 <sup>1</sup>	<2,000	<20	<20	<20	<20	6,700	--	--	
09/16/99	169.11	157.44	11.67	122	<1,000	<10	<10	<10	<10	1,910	--	--	
12/16/99	169.11	158.79	10.32	--	--	--	--	--	--	5,850	--	--	
12/20/00	169.11	158.91	10.20	96.8 <sup>1</sup>	65.2	<0.5	<0.5	<0.5	<0.5	1,790	--	--	
03/02/00	169.11	160.26	8.85	<50	<50	<0.5	<0.5	<0.5	<0.5	5,600	--	--	
06/30/00	169.11	158.81	10.30	<50	360 <sup>5</sup>	<0.50	<0.50	<0.50	<0.50	1,300	--	--	
09/30/00	NP	169.11	158.07	11.04	--	150 <sup>9</sup>	75	<1.3	<1.3	<1.3	8,200	--	--
12/19/00	NP	169.11	159.06	10.05	-- <sup>14</sup>	<1,000	<10	<10	<10	<10	4,600	--	--
03/13/01	NP	169.11	159.76	9.35	-- <sup>14</sup>	284	0.601	1.00	<0.500	1.27	3,670	--	--
06/12/01	NP	169.11	158.08	11.03	<50	140 <sup>9</sup>	67	<0.50	<0.50	<0.50	2,600	--	--
09/18/01	NP	169.11	157.96	11.15	100	240	<0.50	<0.50	<0.50	<1.5	3,200	--	--
12/17/01	169.11	159.22	9.89	270	55	<0.50	<0.50	<0.50	<1.5	930	--	--	
03/21/02	169.11	159.38	9.73	290	190	<0.50	<0.50	<0.50	<1.5	2,600	--	--	
06/08/02	169.11	158.21	10.90	110	110	<0.50	<0.50	<0.50	<1.5	2,200	--	--	
09/13/02	169.11	158.26	10.85	<50	<50	<0.50	<0.50	<0.50	<1.5	650	--	--	
12/13/02	169.11	159.11	10.00	120	<50	<0.50	<0.50	<0.50	<1.5	450	--	--	
03/17/03	169.11	159.66	9.45	370	80	<0.50	<0.50	<0.50	<1.5	1,600	--	--	
06/16/03	169.11	158.98	10.13	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--	
09/15/03	169.11	157.85	11.26	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--	
12/15/03 <sup>16</sup>	169.11	159.78	9.33	-- <sup>14</sup>	<50	<0.5	3	0.6	4	220	--	<50	
03/01/04	169.11	159.22	9.89	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--	
06/28/04 <sup>16</sup>	169.11	158.26	10.85	95	<50	<0.5	<0.5	<0.5	<0.5	980	--	--	

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WELL ID/ DATE	TOC (ft.)	GWE (mst)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)	
<b>MW-3 (cont)</b>													
09/13/04	169.11	DRY AT 12.96 FEET		--	--	--	--	--	--	--	--	--	
12/22/04 <sup>16</sup>	NP	169.11	159.14	9.97	-- <sup>14</sup>	53	<0.5	<0.5	<0.5	<0.5	110	--	<50
03/04/05 <sup>16</sup>	NP	169.11	159.68	9.43	<50	<50	<0.5	<0.5	<0.5	<0.5	460	--	<50
06/30/05 <sup>16</sup>	NP	169.11	158.66	10.45	58 <sup>17</sup>	<50	<0.5	<0.5	<0.5	<0.5	600	--	<50
09/16/05 <sup>16</sup>	NP	169.11	158.26	10.85	-- <sup>14</sup>	<50	<0.5	<0.5	<0.5	<0.5	530	--	<50
NOT MONITORED/SAMPLED													
<b>MW-5</b>													
10/27/92	167.41	157.46	9.95	<50	74	<0.5	<0.5	0.6	7.1	--	--	--	
12/30/92	167.41	158.21	9.20	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
01/27/93	167.41	157.80	9.61	--	--	--	--	--	--	--	--	--	
03/05/93	167.41	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
03/17/93	167.41	157.90	9.51	--	--	--	--	--	--	--	--	--	
06/18/93	167.41	157.56	9.85	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
09/28/93	167.41	157.55	9.86	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
12/30/93	167.41	157.08	10.33	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
04/07/94	167.41	157.69	9.72	<10	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
05/31/94	167.41	157.68	9.73	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
09/23/94	167.41	157.56	9.85	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
11/30/94	167.41	157.73	9.68	79 <sup>2</sup>	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
03/30/95	167.41	157.79	9.62	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
06/06/95	167.41	157.55	9.86	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
09/25/95	167.41	157.56	9.85	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
12/28/95	167.41	157.67	9.74	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--	
NOT MONITORED/SAMPLED													
<b>TRIP BLANK</b>													
10/08/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
11/04/91	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
12/04/91	--	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
06/05/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
12/30/92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	
01/27/93	--	--	--	<50	--	--	--	--	--	--	--	--	
03/05/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	

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Chevron Service Station #9-6991  
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Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
<b>TRIP BLANK (cont)</b>												
03/17/93	--	--	--	--	--	--	--	--	--	--	--	--
06/18/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--	--
09/28/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/30/93	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
04/07/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/31/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/23/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
11/30/94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/30/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/06/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/25/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/28/95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
03/05/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
06/27/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
09/13/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/19/96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
03/20/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
06/27/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
09/19/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
12/05/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
03/31/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
06/19/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
08/31/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
03/19/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0	--	--
09/16/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
12/16/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
12/20/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
03/02/00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
06/30/00 <sup>8</sup>	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
09/30/00	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
12/19/00	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
03/13/01	--	--	--	--	<50.0	<0.500	0.534	<0.500	1.25	<0.500	--	--
06/12/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
09/18/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (ug/L)	TPH-GRO (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	ETHANOL (ug/L)
QA												
12/17/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
03/21/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
06/08/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
09/13/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
12/13/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
03/17/03	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	--
06/16/03 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/15/03 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
12/15/03 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
03/01/04 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
06/28/04 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/13/04 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
12/22/04 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
03/04/05 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
06/30/05 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/16/05 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
12/21/05 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
03/21/06 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
06/21/06 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/05/06 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
12/28/06 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
03/26/07 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
06/26/07 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/26/07 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
12/20/07 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
02/29/08 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
05/09/08 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/19/08 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
12/04/08 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
03/05/09 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
06/23/09 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
09/01/09 <sup>16</sup>	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
DISCONTINUED												

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to June 30, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of Casing  
(ft.) = Feet

GWE = Groundwater Elevation  
(msl) = Mean sea level

DTW = Depth to Water

TPH = Total Petroleum Hydrocarbons

DRO = Diesel Range Organics

GRO = Gasoline Range Organics

TPH-D = Total Petroleum Hydrocarbons as Diesel

TOG = Total Oil and Grease

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl Tertiary Butyl Ether

(µg/L) = Micrograms per liter

-- = Not Measured/Not Analyzed

NP = No Purge

PER = Peristaltic Pump

QA = Quality Assurance/Trip Blank

- 1 Chromatogram pattern indicates an unidentified hydrocarbon.
- 2 Chromatogram pattern indicates a non-diesel mix.
- 3 Chromatogram pattern indicates an unidentified hydrocarbon and weathered diesel.
- 4 Chromatogram pattern indicates a non-diesel mix + discrete peaks.
- 5 Laboratory report indicates unidentified hydrocarbons C6-C12.
- 6 Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons C6-C12.
- 7 Laboratory report indicates unidentified hydrocarbons C9-C24.
- 8 Laboratory report indicates this sample was analyzed outside of the EPA recommended holding time.
- 9 Laboratory report indicates discrete peaks.
- 10 Laboratory report indicates gasoline C6-C12.
- 11 Laboratory report indicates unidentified hydrocarbons >C16.
- 12 Laboratory report indicates diesel C9-C24 + unidentified hydrocarbons <C16.
- 13 Confirmation run.
- 14 Insufficient water to obtain sample for TPH-D.
- 15 Laboratory report indicates unidentified hydrocarbons C9-C17.
- 16 BTEX and MTBE by EPA Method 8260.
- 17 Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. The reported result is due to individual peak(s) eluting in the DRO range.
- 18 Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. It elutes in the DRO range later than #2 fuel and contains individual peaks eluting in the DRO range.
- 19 Laboratory report indicates the observed sample pattern includes #2 fuel/diesel, an additional pattern which elutes later in the DRO range, and individual peaks eluting in the DRO range.
- 20 Laboratory report indicates the observed sample pattern includes #2 fuel/diesel and additional patterns which elute earlier and later in the DRO range.
- 21 Incorrect TOC elevation (168.80) was used in past reports. Correct TOC and GWE are shown.
- 22 Analysis inadvertently missed in the field.
- 23 No Purge due to insufficient water.
- 24 Laboratory report indicates DRO was detected in the method blank at a concentration of 38 µg/L. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.
- 25 Laboratory report indicates DRO was detected in the method blank at a concentration of 38 µg/L. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. The DRO result for the reextract is ND.



**Table 2**  
**Field Measurements and Analytical Results**  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

WELL ID	DATE	D.O. (mg/L)	ORP (mV)	ALKALINITY (ug/L)	SULFATE (ug/L)	NITRATE as NITROGEN (ug/L)	FERROUS IRON (ug/L)
MW-1	12/21/05	3.7	151	581,000	184,000	6,400	29
	03/21/06	4.7	32	546,000	147,000	5,800	600
	06/21/06	SAMPLED ANNUALLY		--	--	--	--
	09/05/06	SAMPLED ANNUALLY		--	--	--	--
	12/28/06	SAMPLED ANNUALLY		--	--	--	--
	03/26/07	3.4	47	844,000 <sup>3</sup>	112,000	3,600	22,400
	02/29/08	2.6	153	<sup>1</sup> <460/584,000 <sup>2</sup>	158,000	4,500	730
MW-4	12/21/05	1.4	89	396,000	137,000	2,300	<8.0
	03/21/06	3.0	82	407,000	139,000	2,200	<8.0
	06/21/06	0.3	86	<sup>1</sup> 710/403,000 <sup>2</sup>	136,000	2,700	12
	09/05/06	2.1	106	<sup>1</sup> <460/412,000 <sup>2</sup>	147,000	2,700	210
	12/28/06	1.1	114	<sup>1</sup> <460/396,000 <sup>2</sup>	175,000	2,500	<8.0
	03/26/07	1.2	188	393,000 <sup>3</sup>	151,000	1,800	190
	06/26/07	1.9	31	392,000	179,000	2,900	<8.0
	09/26/07	2.3	110	<sup>1</sup> <460/412,000 <sup>2</sup>	182,000	1,600	<8.0
	12/20/07	2.1	76	<sup>1</sup> <460/402,000 <sup>2</sup>	169,000	1,400	<8.0
	02/29/08	1.6	88	<sup>1</sup> <460/396,000 <sup>2</sup>	193,000	1,500	15
	05/09/08	1.1	77	<sup>1</sup> <460/399,000 <sup>2</sup>	165,000	1,500	23
	09/19/08	1.7	43	<sup>1</sup> <460/420,000 <sup>2</sup>	167,000	2,500	<8.0
	MW-7	12/21/05	1.4	53	475,000	2,700	<400
03/21/06		2.5	12	439,000	3,800	<400	3,800
06/21/06		0.1	-62	<sup>1</sup> 1,400/480,000 <sup>2</sup>	1,600	<250	5,000
09/05/06		1.2	-23	<sup>1</sup> <460/419,000 <sup>2</sup>	1,700	<250	3,500
12/28/06		0.80	-36	<sup>1</sup> <460/498,000 <sup>2</sup>	2,100	<250	1,000
03/26/07		1.1	-24	490,000 <sup>3</sup>	2,000	<250	2,200
06/26/07		1.0	-72	426,000	1,800	<250	4,700
09/26/07		.90	26	<sup>1</sup> <460/423,000 <sup>2</sup>	2,400	<250	3,800
12/20/07		1.3	-8	<sup>1</sup> <460/539,000 <sup>2</sup>	3,200	<250	910
02/29/08		1.2	80	<sup>1</sup> <460/510,000 <sup>2</sup>	8,100	<250	690
05/09/08		1.0	65	<sup>1</sup> <460/157,000 <sup>2</sup>	2,700	<250	1,800
09/19/08		1.7	25	<sup>1</sup> <460/403,000 <sup>2</sup>	8,100	<250	8,000

**Table 2**  
**Field Measurements and Analytical Results**  
Chevron Service Station #9-6991  
2920 Castro Valley Boulevard  
Castro Valley, California

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**EXPLANATIONS:**

D.O. = Dissolved Oxygen  
(mg/L) = milligrams per liter  
ORP = Oxidation Reduction Potential  
(mV) = millivolts  
-- = Not Analyzed  
(µg/L) = Micrograms per liter

- <sup>1</sup> pH 8.3.
- <sup>2</sup> pH 4.5.
- <sup>3</sup> Laboratory report indicates this sample was analyzed past the 14-day hold time.

**ANALYTICAL METHODS:**

Alkalinity by EPA Method SM20 2320 B for Alkalinity to pH 8.3  
Alkalinity by EPA Method SM20 2320 B for Alkalinity to pH 4.5  
Sulfate by EPA Method 300.0  
Nitrate as Nitrogen by EPA Method 300.00  
Ferrous Iron by EPA Method SM20 3500-Fe B

## STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

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

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

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

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

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

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by IWM to Chemical Waste Management located in Kettleman Hills, California.



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-6991 Job Number: 385296  
 Site Address: 2920 Castro Valley Blvd Event Date: 9/23/11 (inclusive)  
 City: Castro Valley, CA Sampler: JH

Well ID: MW-1 Date Monitored: 9/23/11  
 Well Diameter: 3/4" 2 in.  
 Total Depth: 17.71 ft.  
 Depth to Water: 11.02 ft.

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

Check if water column is less than 0.50 ft.

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

### Purge Equipment:

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

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

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

Start Time (purge): \_\_\_\_\_ Weather Conditions: \_\_\_\_\_  
 Sample Time/Date: \_\_\_\_\_ / \_\_\_\_\_ Water Color: \_\_\_\_\_ Odor: Y / N  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: \_\_\_\_\_

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	x 500ml ambers	YES	NO	LANCASTER	TPH-DRO (8015)

COMMENTS: M/C

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-6991 Job Number: 385296  
 Site Address: 2920 Castro Valley Blvd Event Date: 9/23/11 (inclusive)  
 City: Castro Valley, CA Sampler: JH

Well ID: MW-2 Date Monitored: 9/23/11  
 Well Diameter: 3 1/2 in.  
 Total Depth: 14.69 ft.  
 Depth to Water: 11.45 ft.  Check if water column is less than 0.50 ft.  
3.24 xVF .02 = .06 x3 case volume = Estimated Purge Volume: .19 gal.

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.09

### Purge Equipment:

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

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Peristaltic Pump X  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

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

Start Time (purge): 0900 Weather Conditions: Clear  
 Sample Time/Date: 0940 / 9/23/11 Water Color: Cloudy Odor: Y 10  
 Approx. Flow Rate: - gpm. Sediment Description: L. 5H  
 Did well de-water? No If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 12.02

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - US)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0903</u>	<u>.6</u>	<u>7.42</u>	<u>566</u>	<u>22.9</u>		
<u>0906</u>	<u>.12</u>	<u>7.31</u>	<u>589</u>	<u>22.8</u>		
<u>0909</u>	<u>.19</u>	<u>7.19</u>	<u>607</u>	<u>22.7</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8260)</u>
	<u>2</u> x 500ml ambers	<u>YES</u>	<u>NO</u>	<u>LANCASTER</u>	<u>TPH-DRO (8015)</u>

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

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



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-6991 Job Number: 385296  
 Site Address: 2920 Castro Valley Blvd Event Date: 9/23/11 (inclusive)  
 City: Castro Valley, CA Sampler: JH

Well ID: MW-4  
 Well Diameter: 3/4 (2) in.  
 Total Depth: 19.74 ft.  
 Depth to Water: 10.86 ft.  
8.88 xVF = \_\_\_\_\_

Date Monitored: 9/23/11

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

Check if water column is less than 0.50 ft.

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

### Purge Equipment:

- Disposable Bailer
- Stainless Steel Bailer
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other: \_\_\_\_\_

### Sampling Equipment:

- Disposable Bailer
- Pressure Bailer
- Discrete Bailer
- Peristaltic Pump
- QED Bladder Pump
- Other: \_\_\_\_\_

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

Start Time (purge): \_\_\_\_\_ Weather Conditions: \_\_\_\_\_  
 Sample Time/Date: \_\_\_\_\_ / \_\_\_\_\_ Water Color: \_\_\_\_\_ Odor: Y / N  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: \_\_\_\_\_

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)
	x 500ml ambers	YES	NO	LANCASTER	TPH-DRO (8015)

COMMENTS: M/O

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



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-6991 Job Number: 385296  
 Site Address: 2920 Castro Valley Blvd Event Date: 9/23/11 (inclusive)  
 City: Castro Valley, CA Sampler: JH

Well ID: MW-6  
 Well Diameter: 3/4 (2) in.  
 Total Depth: 23.38 ft.  
 Depth to Water: 11.05 ft.

Date Monitored: 9/23/11

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.51  
 xVF .17 = 2.09 x3 case volume = Estimated Purge Volume: 6.28 gal.

### Purge Equipment:

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

### Sampling Equipment:

Disposable Bailer X  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

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

Start Time (purge): 1010 Weather Conditions: Clear  
 Sample Time/Date: 1050 / 9/23/11 Water Color: Clear Odor: Y 10  
 Approx. Flow Rate: - gpm. Sediment Description: Light  
 Did well de-water? No If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 12.97

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - <u>CS</u> )	Temperature (° / F)	D.O. (mg/L)	ORP (mV)
<u>1016</u>	<u>2</u>	<u>7.36</u>	<u>698</u>	<u>22.8</u>	_____	_____
<u>1022</u>	<u>4</u>	<u>7.58</u>	<u>703</u>	<u>22.6</u>	_____	_____
<u>1029</u>	<u>6</u>	<u>7.63</u>	<u>717</u>	<u>22.5</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8260)</u>
	<u>2</u> x 500ml ambers	<u>YES</u>	<u>NO</u>	<u>LANCASTER</u>	<u>TPH-DRO (8015)</u>

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

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-6991 Job Number: 385296  
 Site Address: 2920 Castro Valley Blvd Event Date: 9/23/11 (inclusive)  
 City: Castro Valley, CA Sampler: JH

Well ID: MW-7 Date Monitored: 9/23/11  
 Well Diameter: 3/4 (2) in.  
 Total Depth: 19.68 ft.  
 Depth to Water: 11.48 ft.

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

Check if water column is less than 0.50 ft.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.12  
 xVF .17 = 1.39 x3 case volume = Estimated Purge Volume: 4.18 gal.

### Purge Equipment:

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

### Sampling Equipment:

Disposable Bailer X  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

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

Start Time (purge): 0750 Weather Conditions: Clear  
 Sample Time/Date: 0830 / 9/23/11 Water Color: cloudy Odor: Y 10  
 Approx. Flow Rate: — gpm. Sediment Description: L.s.H.  
 Did well de-water? N If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 12.92

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - $\mu S$ )	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0754</u>	<u>1.5</u>	<u>7.37</u>	<u>567</u>	<u>23.6</u>	_____	_____
<u>0758</u>	<u>3.0</u>	<u>7.62</u>	<u>594</u>	<u>23.1</u>	_____	_____
<u>0803</u>	<u>4.5</u>	<u>7.55</u>	<u>628</u>	<u>23.2</u>	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>6</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8260)</u>
	<u>2</u> x 500ml ambers	<u>YES</u>	<u>NO</u>	<u>LANCASTER</u>	<u>TPH-DRO (8015)</u>

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

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



# Chevron California Region Analysis Request/Chain of Custody



092711-05

Acct. #: 12099

For Lancaster Laboratories use only

Sample # 6422632-34

Group #: 008101

CRA MTI Project #: 61H-1633

C# 1268924

Facility #: SS#9-699T GFR#385296 GlobalID#T0600T00324  
 Site Address: 2920 CASTRO VALLEY BLVD, CASTRO VALLEY, CA  
 Site Address: MTI  
 Chevron PM: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568  
 Lead Consultant: CRAKJ Kiernan  
 Consultant/Office: Deanna L. Harding (deanna@grinc.com)  
 Consultant Prj. Mgr.:  
 Consultant Phone #: 925-551-7555 Fax #: 925-551-7899  
 Sampler: Jim Herron

Matrix	Analyses Requested									
	Preservation Codes									
Soil <input type="checkbox"/> Potable <input type="checkbox"/> NPDES	Water <input type="checkbox"/> NPDES	Oil <input type="checkbox"/> Air	Total Number of Containers	H	H					
								BTEX + MTBE 8260 <input type="checkbox"/> 8021 <input type="checkbox"/>	TPH 8015 MOD GFO	TPH 8015 MOD DFO <input type="checkbox"/> Silica Gel Cleanup

**Preservative Codes**  
 H = HCl      T = Thiosulfate  
 N = HNO<sub>3</sub>    B = NaOH  
 S = H<sub>2</sub>SO<sub>4</sub>   O = Other

J value reporting needed  
 Must meet lowest detection limits possible for 8260 compounds  
 8021 MTBE Confirmation  
 Confirm highest hit by 8260  
 Confirm all hits by 8260  
 Run \_\_\_ oxy's on highest hit  
 Run \_\_\_ oxy's on all hits

Sample Identification	Date Collected	Time Collected	Grab	Composite
MW-2	9/23/11	0940	X	
MW-6	↓	1050	X	
MW-7	↓	0830	X	

**Comments / Remarks**

**Turnaround Time Requested (TAT) (please circle)**  
 (STD TAT) 72 hour      48 hour  
 24 hour              4 day              5 day

**Data Package Options (please circle if required) EDF/EDD**  
 QC Summary      Type I - Full  
 Type VI (Raw Data)       Coelt Deliverable not needed  
 WIP (RWQCB)  
 Disk

Relinquished by: <i>[Signature]</i>	Date: 9/23/11	Time: 1100	Received by: GETTLER-RYAN FRIDGE	Date: 09-23-11	Time: 1100
Relinquished by: <i>[Signature]</i>	Date: 09-27-11	Time: 1315	Received by: A. Sulzer	Date: 27 SEP 11	Time: 1315
Relinquished by: <i>[Signature]</i>	Date: 28 SEP 11	Time: 1628	Received by: FEDEX	Date:	Time:
Relinquished by: Commercial Carrier: UPS      (FedEx)      Other	Temperature Upon Receipt: -32.4 - 28 °C		Received by: <i>[Signature]</i>	Date: 9-28-11	Time: 905
			Custody Seals Intact? (Yes) No		



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

## ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425

Prepared for:

Chevron c/o CRA  
Suite 107  
10969 Trade Center Dr  
Rancho Cordova CA 95670

October 10, 2011

Project: 96991

Submittal Date: 09/29/2011

Group Number: 1268924

PO Number: 96991

Release Number: MTI

State of Sample Origin: CA

RECEIVED

OCT 11 2011

GETTLER-RYAN INC.  
GENERAL CONTRACTORS

Client Sample Description

MW-2-W-110923 Grab Water  
MW-6-W-110923 Grab Water  
MW-7-W-110923 Grab Water

Lancaster Labs (LLI) #

6422632  
6422633  
6422634

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

ELECTRONIC COPY TO Gettler-Ryan, Inc.  
ELECTRONIC COPY TO Chevron c/o CRA  
ELECTRONIC COPY TO Chevron

Attn: Rachelle Munoz  
Attn: Report Contact  
Attn: Anna Avina



## ***Analysis Report***

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • [www.lancasterlabs.com](http://www.lancasterlabs.com)

Questions? Contact your Client Services Representative  
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Robin C. Runkle".

**Robin C. Runkle**  
**Senior Specialist**



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

**Sample Description:** MW-2-W-110923 Grab Water  
 Facility# 96991 Job# 385296 MTI# 61H-1633 GRD  
 2920 Castro Valley-Castro T0600100324 MW-2

LLI Sample # WW 6422632  
 LLI Group # 1268924  
 Account # 12099

**Project Name:** 96991

Collected: 09/23/2011 09:40 by JH Chevron c/o CRA  
 Suite 107  
 Submitted: 09/29/2011 09:05 10969 Trade Center Dr  
 Reported: 10/10/2011 15:48 Rancho Cordova CA 95670

CVC02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
	SW-846 8260B		ug/l	ug/l	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	50	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles</b>					
	SW-846 8015B		ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
<b>GC Petroleum Hydrocarbons</b>					
	SW-846 8015B		ug/l	ug/l	
06609	TPH-DRO CA C10-C28	n.a.	130	50	1

### General Sample Comments

State of California Lab Certification No. 2501  
 Trip blank vials were not received by the laboratory for this sample group.

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	BTEX/MTBE 8260 Water	SW-846 8260B	1	D112772AA	10/04/2011 12:05	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D112772AA	10/04/2011 12:05	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11277A20A	10/05/2011 12:22	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11277A20A	10/05/2011 12:22	Marie D John	1
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	112720032A	10/03/2011 15:49	Anita M Dale	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	112720032A	09/30/2011 09:30	Roza S Goslawska	1

**Sample Description:** MW-6-W-110923 Grab Water

**Facility#** 96991 **Job#** 385296 **MTI#** 61H-1633 **GRD**  
 2920 Castro Valley-Castro T0600100324 MW-6

**LLI Sample #** WW 6422633

**LLI Group #** 1268924

**Account #** 12099

**Project Name:** 96991

**Collected:** 09/23/2011 10:50 by JH

Chevron c/o CRA

Suite 107

**Submitted:** 09/29/2011 09:05

10969 Trade Center Dr

**Reported:** 10/10/2011 15:48

Rancho Cordova CA 95670

CVC06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
	<b>SW-846 8260B</b>		ug/l	ug/l	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	0.9	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	1	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	3	0.5	1
<b>GC Volatiles</b>					
	<b>SW-846 8015B</b>		ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	340	50	1
<b>GC Petroleum Hydrocarbons</b>					
	<b>SW-846 8015B</b>		ug/l	ug/l	
06609	TPH-DRO CA C10-C28	n.a.	150	50	1

### General Sample Comments

State of California Lab Certification No. 2501

Trip blank vials were not received by the laboratory for this sample group.

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	BTEX/MTBE 8260 Water	SW-846 8260B	1	D112772AA	10/04/2011 13:13	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D112772AA	10/04/2011 13:13	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11277A20A	10/05/2011 12:44	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11277A20A	10/05/2011 12:44	Marie D John	1
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	112720032A	10/03/2011 12:09	Anita M Dale	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	112720032A	09/30/2011 09:30	Roza S Goslawska	1

**Sample Description: MW-7-W-110923 Grab Water**
**Facility# 96991 Job# 385296 MTI# 61H-1633 GRD  
2920 Castro Valley-Castro T0600100324 MW-7**
**LLI Sample # WW 6422634**
**LLI Group # 1268924**
**Account # 12099**
**Project Name: 96991**

Collected: 09/23/2011 08:30 by JH

Chevron c/o CRA

Suite 107

Submitted: 09/29/2011 09:05

10969 Trade Center Dr

Reported: 10/10/2011 15:48

Rancho Cordova CA 95670

CVC07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
	<b>SW-846 8260B</b>		<b>ug/l</b>	<b>ug/l</b>	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	14	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
<b>GC Volatiles</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
01728	TPH-GRO N. CA water C6-C12	n.a.	420	50	1
<b>GC Petroleum Hydrocarbons</b>					
	<b>SW-846 8015B</b>		<b>ug/l</b>	<b>ug/l</b>	
06609	TPH-DRO CA C10-C28	n.a.	340	50	1

### General Sample Comments

State of California Lab Certification No. 2501

Trip blank vials were not received by the laboratory for this sample group.

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		Analyst	Dilution Factor
					Date	Time		
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D112772AA	10/04/2011	13:36	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D112772AA	10/04/2011	13:36	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11277A20A	10/05/2011	13:06	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11277A20A	10/05/2011	13:06	Marie D John	1
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	112720032A	10/03/2011	15:16	Anita M Dale	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	112720032A	09/30/2011	09:30	Roza S Goslawska	1

## Quality Control Summary

 Client Name: Chevron c/o CRA  
 Reported: 10/10/11 at 03:48 PM

Group Number: 1268924

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

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D112772AA	Sample number(s): 6422632-6422634							
Benzene	N.D.	0.5	ug/l	95		79-120		
Ethylbenzene	N.D.	0.5	ug/l	87		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	89		76-120		
Toluene	N.D.	0.5	ug/l	86		79-120		
Xylene (Total)	N.D.	0.5	ug/l	86		80-120		
Batch number: 11277A20A	Sample number(s): 6422632-6422634							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	91	91	75-135	0	30
Batch number: 112720032A	Sample number(s): 6422632-6422634							
TPH-DRO CA C10-C28	N.D.	32.	ug/l	81	88	56-122	7	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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D112772AA	Sample number(s): 6422632-6422634 UNSPK: 6422632								
Benzene	105	104	80-126	0	30				
Ethylbenzene	95	95	71-134	0	30				
Methyl Tertiary Butyl Ether	88	82	72-126	2	30				
Toluene	96	95	80-125	1	30				
Xylene (Total)	95	94	79-125	1	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.

 Analysis Name: UST VOCs by 8260B - Water  
 Batch number: D112772AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6422632	102	98	93	96
6422633	104	100	95	100
6422634	102	99	96	99

\*- Outside of specification

- (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 c/o CRA  
Reported: 10/10/11 at 03:48 PM

Group Number: 1268924

### Surrogate Quality Control

Blank	105	98	95	97
LCS	103	97	94	102
MS	103	101	95	105
MSD	101	104	94	103

---

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

Analysis Name: TPH-GRO N. CA water C6-C12  
Batch number: 11277A20A  
Trifluorotoluene-F

---

6422632	96
6422633	104
6422634	118
Blank	94
LCS	116
LCSD	116

---

Limits: 63-135

Analysis Name: TPH-DRO CA C10-C28  
Batch number: 112720032A  
Orthoterphenyl

---

6422632	82
6422633	84
6422634	80
Blank	79
LCS	76
LCSD	80

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Limits: 59-131

\*- Outside of specification

- (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>ug</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>ml</b>	milliliter(s)	<b>l</b>	liter(s)
<b>m3</b>	cubic meter(s)	<b>ul</b>	microliter(s)
<b>&lt;</b>	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>J</b>	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
<b>ppm</b>	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 of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	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.		

## 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.

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