



Atlantic Richfield Company
(a BP affiliated company)

P.O. Box 1257
San Ramon, CA 94583
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RECEIVED

3:47 pm, Jul 30, 2008

Alameda County
Environmental Health

25 July 2008

Re: Second Quarter 2008 Ground-Water Monitoring Report
Former Atlantic Richfield Company Station #6002
6235 Seminary Avenue
Oakland, California
ACEH Case #RO0000163

"I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct."

Submitted by:

Paul Supple
Environmental Business Manager

Prepared for

Mr. Paul Supple
Environmental Business Manager
Atlantic Richfield Company
P.O. Box 1257
San Ramon, California 94583

Prepared by



1324 Mangrove Avenue, Suite 212
Chico, California 95926
(530) 566-1400
www.broadbentinc.com

25 July 2008

Project No. 06-08-634

Second Quarter 2008 Ground-Water Monitoring Report
Former Atlantic Richfield Company Station #6002
6235 Seminary Avenue
Oakland, California

Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
Chico, CA 95926
Voice (530) 566-1400
Fax (530) 566-1401



25 July 2008

Project No. 06-08-634

Atlantic Richfield Company
P.O. Box 1257
San Ramon, CA 94583
Submitted via ENFOS

Attn.: Mr. Paul Supple

Re: Second Quarter 2008 Ground-Water Monitoring Report, Former Atlantic Richfield Company (a BP affiliated company) Station #6002, 6235 Seminary Avenue, Oakland, Alameda County, California; ACEH Case #RO0000163

Dear Mr. Supple:

Attached is the *Second Quarter 2008 Ground-Water Monitoring Report* for Former Atlantic Richfield Company Station #6002 located at 6235 Seminary Avenue, Oakland, California (Site). This report presents a summary of results from ground-water monitoring and sampling conducted at the Site during the Second Quarter of 2008.

Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

A handwritten signature in black ink that appears to read "Thomas A. Venus".

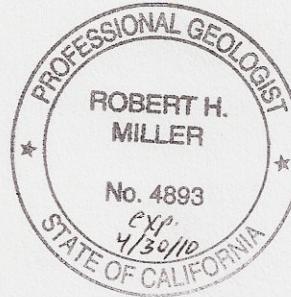
Thomas A. Venus, P.E.
Senior Engineer

A handwritten signature in black ink that appears to read "Robert H. Miller".

Robert H. Miller, P.G., C.HG.
Principal Hydrogeologist

Enclosures

cc: Mr. Paresh Khatri, Alameda County Environmental Health (Submitted via ACEH ftp site)
Electronic copy uploaded to GeoTracker



STATION # 6002 QUARTERLY GROUND-WATER MONITORING REPORT

Facility: <u>#6002</u>	Address: <u>6235 Seminary Avenue, Oakland</u>
Environmental Business Manager:	<u>Mr. Paul Supple</u>
Consulting Co./Contact Persons:	<u>Broadbent & Associates, Inc.(BAI)/Rob Miller & Tom Venus</u> <u>(530) 566-1400</u>
Consultant Project No.:	<u>06-08-634</u>
Primary Agency/Regulatory ID No.:	<u>Alameda County Environmental Health (ACEH)</u> <u>ACEH Case #RO0000163</u>
Facility Permits/Permitting Agency:	<u>NA</u>

WORK PERFORMED THIS QUARTER (Second Quarter 2008):

1. Prepared and submitted the First Quarter 2008 Ground-Water Monitoring Report.
2. Conducted ground-water monitoring/sampling for Second Quarter 2008. Work performed by Stratus Environmental, Inc. (Stratus) on 23 May 2008.

WORK PROPOSED FOR NEXT QUARTER (Third Quarter 2008):

1. Prepared and submitted Second Quarter 2008 Ground-Water Monitoring Report (contained herein).
2. Conduct ground-water monitoring/sampling for Third Quarter 2008.

QUARTERLY RESULTS SUMMARY:

Current phase of project:	<u>Ground-Water Monitoring/Sampling</u>
Frequency of ground-water monitoring:	<u>Quarterly: Wells MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, VW-1, VW-3, VW-4</u>
Frequency of ground-water sampling:	<u>Quarterly: Wells MW-5, VW-1, VW-4</u> <u>Annually (3Q): Wells MW-3, MW-4, MW-6, MW-7, MW-8</u>
Is free product (FP) present on-site:	<u>No</u>
Bulk Soil removed to Date:	<u>Approximately 370 cubic yards of TPH-impacted soil</u>
Current remediation techniques:	<u>NA</u>
Depth to ground water (below TOC):	<u>5.15 ft (MW-7) to 11.68 ft (MW-5)</u>
General ground-water flow direction:	<u>West-Southwest</u>
Approximate hydraulic gradient:	<u>0.06 ft/ft</u>

DISCUSSION:

Second quarter 2008 ground-water monitoring and sampling was conducted at Former Atlantic Richfield Company Service Station #6002 on 23 May 2008 by Stratus personnel. Water levels were gauged in the nine wells associated with Station #6002. No significant irregularities were noted during water level gauging. Depth to water measurements ranged from 5.15 ft at well MW-7 to 11.68 ft. at well MW-5. Resulting ground-water surface elevations ranged from 250.79 ft above mean sea level (msl) in up-gradient well MW-6 to 236.49 ft above msl at well MW-7. Water level elevations were within the historic minimum and maximum ranges, as summarized in Table 1, with the following exception: the water level elevation in well MW-7 reached a historic maximum value of 236.49 ft above msl. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the west-southwest at approximately 0.06 ft/ft, generally consistent with the historical data (see Table 3). Ground-water monitoring field data sheets are provided within Appendix A. Measured depths to water and respective ground-water elevations are summarized in Table 1. Potentiometric ground-water elevation contours are presented in Drawing 1.

Consistent with the current ground-water sampling schedule, water samples were collected from wells MW-5, VW-1, and VW-4. No irregularities were noted during sampling. Samples were submitted under chain-of-custody protocol to Calscience Environmental Laboratories, Inc. (Garden Grove, California) for analysis of Gasoline Range Organics (GRO, C6-C12) by EPA Method 8015B; Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B; and tert-Amyl methyl ether (TAME), tert-Butyl alcohol (TBA), Di-isopropyl ether (DIPE), 1,2-Dibromomethane (EDB), 1,2-Dichloroethane (1,2-DCA), Ethanol, Ethyl tert-butyl ether (ETBE), and Methyl tert-butyl ether (MTBE) by EPA Method 8260B. No significant irregularities were noted during analysis of the samples by the laboratory. Ground-water sampling field data sheets and the laboratory analytical report, including chain-of-custody documentation, are provided in Appendix A.

Gasoline Range Organics were detected above the laboratory reporting limit in two of the three wells sampled this quarter at concentrations up to 4,700 micrograms per liter ($\mu\text{g}/\text{L}$) in MW-5. Toluene, Ethylbenzene, and Total Xylenes were detected above the laboratory reporting limits in well MW-5 at concentrations of 0.87 $\mu\text{g}/\text{L}$, 5.6 $\mu\text{g}/\text{L}$, and 1.2 $\mu\text{g}/\text{L}$, respectively. TBA was detected above the laboratory reporting limit in two of the three wells sampled at concentrations up to 280 $\mu\text{g}/\text{L}$ in well VW-4. MTBE was detected above the laboratory reporting limit in each of the three wells sampled at concentrations up to 17 $\mu\text{g}/\text{L}$ in MW-5. The remaining fuel additives and oxygenates were not detected above their laboratory reporting limits in the three wells sampled this quarter.

Detected analyte concentrations were within the historic minimum and maximum ranges recorded for each well. Historic laboratory analytical results are summarized in Table 1 and Table 2. The most recent GRO, Benzene, and MTBE concentrations are also presented in Drawing 1. A copy of the laboratory analytical report, including chain-of-custody documentation, is provided in Appendix A. Ground-water monitoring data (GEO_WELL) and laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation pages are provided in Appendix B.

CLOSURE:

The findings presented in this report are based upon: observations of Stratus field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by Calscience Environmental Laboratories, Inc. (Garden Grove, California). Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of Atlantic Richfield Company. It is possible that variations in soil or ground-water conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

ATTACHMENTS:

- Drawing 1. Ground-Water Elevation Contours and Analytical Summary Map, 23 May 2008, Former ARCO Service Station #6002, 6235 Seminary Avenue, Oakland, California
- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #6002, 6235 Seminary Ave., Oakland, California
- Table 2. Summary of Fuel Additives Analytical Data, Station #6002, 6235 Seminary Ave., Oakland, California
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #6002, 6235 Seminary Avenue, Oakland, California

Appendix A. Stratus Ground-Water Sampling Data Package (Includes Field Data Sheets, Laboratory Analytical Report with Chain-of-Custody Documentation, and Field Procedures)

Appendix B. GeoTracker Upload Confirmation

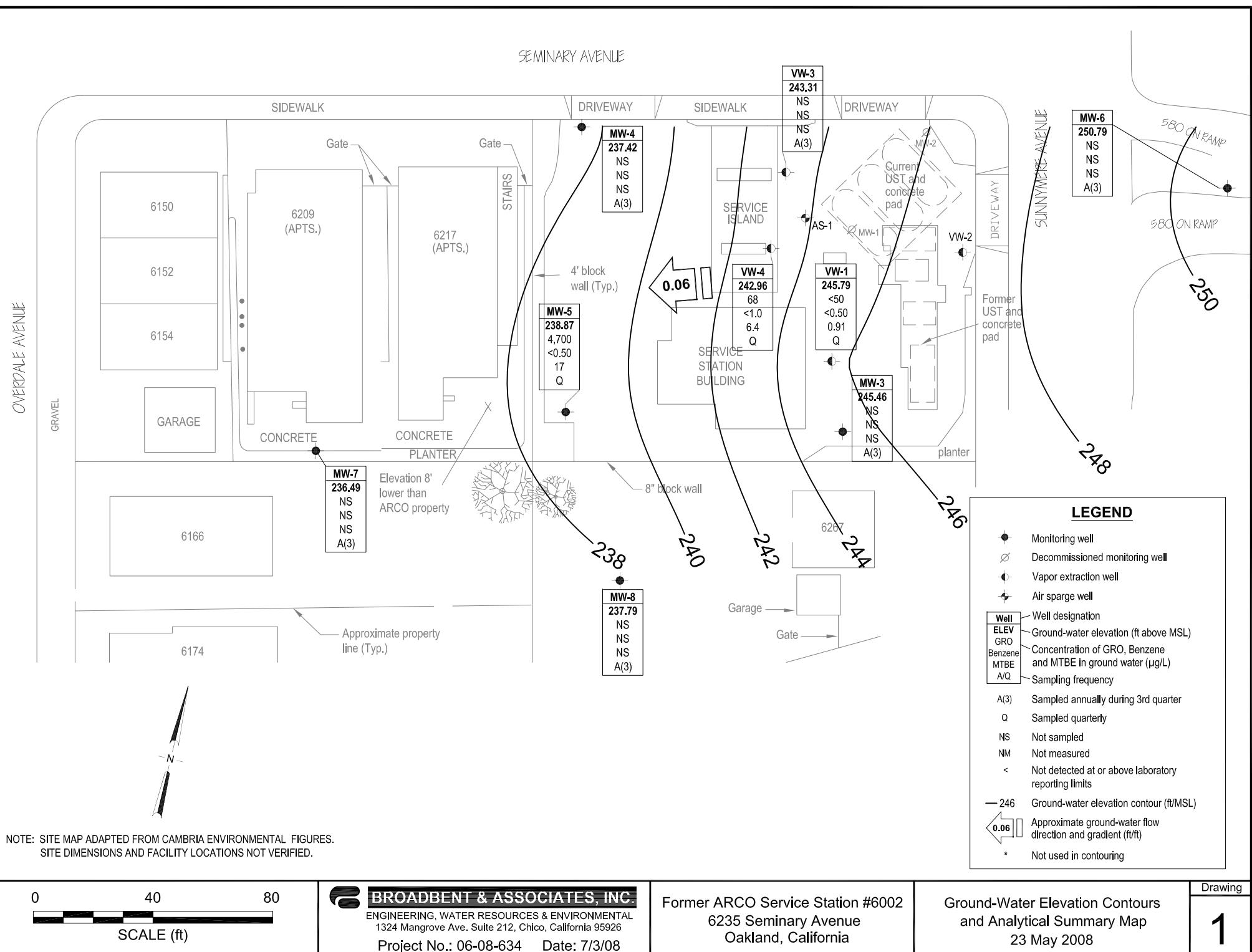


Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
AS-1																
6/29/1995	--		--	20.0	22.0	9.20	--	--	<50	1.6	<0.5	0.9	0.9	--	--	--
MW-1																
3/15/1995	--		247.06	4.5	24.5	7.37	--	239.69	13,000	1,200	44	770	1,100	--	--	--
5/30/1995	--		247.06	4.5	24.5	8.48	--	238.58	19,000	1,600	30	890	1,400	--	--	--
9/1/1995	--		247.06	4.5	24.5	9.47	--	237.59	14,000	1,300	28	480	780	24,000	--	--
11/13/1995	--	a, b	247.06	4.5	24.5	8.78	--	238.28	11,000	570	17	260	410	25,000	--	--
2/23/1996	--	d	247.06	4.5	24.5	--	--	--	--	--	--	--	--	--	--	--
MW-2																
3/15/1995	--		249.30	5.0	17.5	8.25	--	241.05	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
5/30/1995	--		249.30	5.0	17.5	9.93	--	239.37	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
9/1/1995	--		249.30	5.0	17.5	10.69	--	238.61	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/13/1995	--		249.30	5.0	17.5	10.32	--	238.98	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
2/23/1996	--	d	249.30	5.0	17.5	--	--	--	--	--	--	--	--	--	--	--
MW-3																
3/15/1995	--		248.35	5.0	24.5	6.76	--	241.59	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
5/30/1995	--		248.35	5.0	24.5	7.81	--	240.54	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
9/1/1995	--		248.35	5.0	24.5	8.65	--	239.70	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/13/1995	--		248.35	5.0	24.5	8.25	--	240.10	120	45	0.7	<0.5	6.2	--	--	--
2/23/1996	--		248.35	5.0	24.5	6.64	--	241.71	<50	<0.5	<0.5	0.6	1.9	<3	--	--
5/10/1996	--		248.35	5.0	24.5	7.95	--	240.40	--	--	--	--	--	--	--	--
8/9/1996	--		248.35	5.0	24.5	8.06	--	240.29	--	--	--	--	--	--	--	--
11/8/1996	--	e	248.35	5.0	24.5	--	--	--	--	--	--	--	--	--	--	--
3/21/1997	--		248.35	5.0	24.5	8.21	--	240.14	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/27/1997	--		248.35	5.0	24.5	8.25	--	240.10	--	--	--	--	--	--	--	--
8/5/1997	--		248.35	5.0	24.5	8.29	--	240.06	--	--	--	--	--	--	--	--
10/29/1997	--		248.35	5.0	24.5	8.58	--	239.77	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/25/1998	--		248.35	5.0	24.5	7.69	--	240.66	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/12/1998	--		248.35	5.0	24.5	8.20	--	240.15	--	--	--	--	--	--	--	--
7/28/1998	--		248.35	5.0	24.5	8.55	--	239.80	--	--	--	--	--	--	--	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
MW-3 Cont.																
10/27/1998	--		248.35	5.0	24.5	8.30	--	240.05	--	--	--	--	--	--	--	--
2/8/1999	--		248.35	5.0	24.5	7.90	--	240.45	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/1/1999	--		248.35	5.0	24.5	8.40	--	239.95	--	--	--	--	--	--	--	--
8/25/1999	--		248.35	5.0	24.5	8.49	--	239.86	--	--	--	--	--	--	1.67	--
10/29/1999	--		248.35	5.0	24.5	8.52	--	239.83	--	--	--	--	--	--	6.9	--
2/16/2000	NP		248.35	5.0	24.5	8.03	--	240.32	<50	<0.5	0.8	<0.5	<1	<3	8.51	--
6/23/2000	--		248.35	5.0	24.5	7.55	--	240.80	--	--	--	--	--	--	2.1	--
8/17/2000	--		248.35	5.0	24.5	8.65	--	239.70	--	--	--	--	--	--	1.1	--
11/10/2000	--		248.35	5.0	24.5	7.19	--	241.16	--	--	--	--	--	--	--	--
2/12/2001	NP		248.35	5.0	24.5	8.60	--	239.75	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.81	--
4/13/2001	--		248.35	5.0	24.5	6.13	--	242.22	--	--	--	--	--	--	--	--
7/18/2001	--		248.35	5.0	24.5	6.47	--	241.88	--	--	--	--	--	--	--	--
10/1/2001	--		248.35	5.0	24.5	6.99	--	241.36	--	--	--	--	--	--	--	--
1/14/2002	NP		248.35	5.0	24.5	5.47	--	242.88	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
4/3/2002	--		248.35	5.0	24.5	6.95	--	241.40	--	--	--	--	--	--	--	--
8/8/2002	--		248.35	5.0	24.5	8.78	--	239.57	--	--	--	--	--	--	--	--
11/27/2002	--		248.35	5.0	24.5	8.52	--	239.83	--	--	--	--	--	--	--	--
2/10/2003	NP		248.35	5.0	24.5	8.40	--	239.95	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.7	6.4
6/3/2003	--		248.35	5.0	24.5	8.40	--	239.95	--	--	--	--	--	--	--	--
8/14/2003	--		248.35	5.0	24.5	8.60	--	239.75	--	--	--	--	--	--	--	--
11/13/2003	--		248.35	5.0	24.5	8.41	--	239.94	--	--	--	--	--	--	--	--
02/13/2004	--		253.88	5.0	24.5	8.40	--	245.48	--	--	--	--	--	--	--	--
05/05/2004	--		253.88	5.0	24.5	8.28	--	245.60	--	--	--	--	--	--	--	--
08/30/2004	NP		253.88	5.0	24.5	10.32	--	243.56	<50	<0.50	<0.50	<0.50	<0.50	0.72	1.4	6.4
11/08/2004	--		253.88	5.0	24.5	8.12	--	245.76	--	--	--	--	--	--	--	--
02/07/2005	--		253.88	5.0	24.5	8.20	--	245.68	--	--	--	--	--	--	--	--
05/09/2005	--		253.88	5.0	24.5	8.23	--	245.65	--	--	--	--	--	--	--	--
08/11/2005	NP		253.88	5.0	24.5	8.72	--	245.16	<50	<0.50	<0.50	<0.50	<0.50	0.73	1.6	6.1
12/02/2005	--		253.88	5.0	24.5	8.15	--	245.73	--	--	--	--	--	--	--	--
02/15/2006	--		253.88	5.0	24.5	8.23	--	245.65	--	--	--	--	--	--	--	--
5/19/2006	--		253.88	5.0	24.5	8.38	--	245.50	--	--	--	--	--	--	--	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
MW-3 Cont.																
8/25/2006	P		253.88	5.0	24.5	8.59	--	245.29	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.15	6.2
11/2/2006	--		253.88	5.0	24.5	8.65	--	245.23	--	--	--	--	--	--	--	--
2/6/2007	--		253.88	5.0	24.5	8.38	--	245.50	--	--	--	--	--	--	--	--
5/9/2007	--		253.88	5.0	24.5	8.42	--	245.46	--	--	--	--	--	--	--	--
8/8/2007	NP		253.88	5.0	24.5	8.67	--	245.21	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.16	6.90
11/14/2007	--		253.88	5.0	24.5	8.48	--	245.40	--	--	--	--	--	--	--	--
2/28/2008	--		253.88	5.0	24.5	8.28	--	245.60	--	--	--	--	--	--	--	--
5/23/2008	--		253.88	5.0	24.5	8.42	--	245.46	--	--	--	--	--	--	--	--
MW-4																
3/15/1995	--		242.91	4.5	24.5	9.37	--	233.54	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
5/30/1995	--		242.91	4.5	24.5	11.47	--	231.44	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
9/1/1995	--		242.91	4.5	24.5	12.28	--	230.63	78	<0.5	0.7	<0.5	<0.5	<3	--	--
11/13/1995	--		242.91	4.5	24.5	11.75	--	231.16	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
2/23/1996	--		242.91	4.5	24.5	8.51	--	234.40	59	1.2	7.4	1.6	9.3	3	--	--
5/10/1996	--		242.91	4.5	24.5	11.35	--	231.56	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
8/9/1996	--		242.91	4.5	24.5	9.70	--	233.21	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/8/1996	--		242.91	4.5	24.5	11.79	--	231.12	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
3/21/1997	--		242.91	4.5	24.5	10.94	--	231.97	<50	<0.5	<0.5	<0.5	<0.5	81	--	--
5/27/1997	--		242.91	4.5	24.5	11.51	--	231.40	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
8/5/1997	--		242.91	4.5	24.5	11.90	--	231.01	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
10/29/1997	--		242.91	4.5	24.5	12.00	--	230.91	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/25/1998	--		242.91	4.5	24.5	8.34	--	234.57	<50	<0.5	0.9	<0.5	0.9	4	--	--
5/12/1998	--		242.91	4.5	24.5	10.93	--	231.98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
7/28/1998	--		242.91	4.5	24.5	12.08	--	230.83	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
10/27/1998	--		242.91	4.5	24.5	11.40	--	231.51	<5,000	<50	<50	<50	160	64	6,400	--
2/8/1999	--		242.91	4.5	24.5	8.40	--	234.51	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/1/1999	NP		242.91	4.5	24.5	11.93	--	230.98	<50	<0.5	<0.5	<0.5	<0.5	<3	4	6.26
8/25/1999	NP		242.91	4.5	24.5	12.21	--	230.70	<50	<0.5	<0.5	<0.5	<0.5	<3	1.29	6.34
10/29/1999	NP		242.91	4.5	24.5	12.37	--	230.54	<50	<0.5	<0.5	<0.5	<0.5	<3	1.5	5.60
2/16/2000	NP		242.91	4.5	24.5	7.45	--	235.46	<50	<0.5	<0.5	<0.5	<1	<3	2.38	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
MW-4 Cont.																
6/23/2000	NP		242.91	4.5	24.5	12.31	--	230.60	<50	<0.50	<0.50	<0.50	<0.50	<2.50	2.8	--
8/17/2000	NP		242.91	4.5	24.5	11.92	--	230.99	<50	<0.50	<0.50	<0.50	<0.50	<2.50	2.38	--
8/17/2000	--	f	242.91	4.5	24.5	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.50	--	--
11/10/2000	NP		242.91	4.5	24.5	10.80	--	232.11	<50	<0.50	<0.50	<0.50	<0.50	<2.50	1.55	--
2/12/2001	NP		242.91	4.5	24.5	11.65	--	231.26	<50	<0.50	<0.50	<0.50	<0.50	<2.50	1.12	--
4/13/2001	--	f	242.91	4.5	24.5	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.50	--	--
4/13/2001	NP		242.91	4.5	24.5	8.17	--	234.74	<50	<0.50	<0.50	<0.50	<0.50	<2.50	--	--
7/18/2001	NP		242.91	4.5	24.5	8.51	--	234.40	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
10/1/2001	NP		242.91	4.5	24.5	8.71	--	234.20	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
1/14/2002	NP		242.91	4.5	24.5	7.13	--	235.78	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
1/14/2002	--	f	242.91	4.5	24.5	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
4/3/2002	NP		242.91	4.5	24.5	10.10	--	232.81	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
8/8/2002	NP		242.91	4.5	24.5	12.64	--	230.27	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4	8.1
11/27/2002	NP		242.91	4.5	24.5	12.01	--	230.90	<50	<0.50	<0.50	<0.50	<0.50	4.7	2.5	6.5
2/10/2003	NP		242.91	4.5	24.5	11.22	--	231.69	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.8	6.6
6/3/2003	--		242.91	4.5	24.5	11.54	--	231.37	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.9	6
8/14/2003	--		242.91	4.5	24.5	12.41	--	230.50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	6.3
11/13/2003	--		242.91	4.5	24.5	11.64	--	231.27	--	--	--	--	--	--	--	--
02/13/2004	--		248.62	4.5	24.5	10.28	--	238.34	--	--	--	--	--	--	--	--
05/05/2004	--		248.62	4.5	24.5	12.04	--	236.58	--	--	--	--	--	--	--	--
08/30/2004	NP		248.62	4.5	24.5	12.98	--	235.64	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	5.8
11/08/2004	--		248.62	4.5	24.5	11.29	--	237.33	--	--	--	--	--	--	--	--
02/07/2005	--		248.62	4.5	24.5	10.03	--	238.59	--	--	--	--	--	--	--	--
05/09/2005	--		248.62	4.5	24.5	10.65	--	237.97	--	--	--	--	--	--	--	--
08/11/2005	NP		248.62	4.5	24.5	12.68	--	235.94	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.9	6.5
12/02/2005	--		248.62	4.5	24.5	10.35	--	238.27	--	--	--	--	--	--	--	--
02/15/2006	--		248.62	4.5	24.5	8.38	--	240.24	--	--	--	--	--	--	--	--
5/19/2006	--		248.62	4.5	24.5	11.24	--	237.38	--	--	--	--	--	--	--	--
8/25/2006	P		248.62	4.5	24.5	12.28	--	236.34	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.51	5.7
11/2/2006	--		248.62	4.5	24.5	12.64	--	235.98	--	--	--	--	--	--	--	--
2/6/2007	--		248.62	4.5	24.5	10.52	--	238.10	--	--	--	--	--	--	--	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
MW-4 Cont.																
5/9/2007	--		248.62	4.5	24.5	10.97	--	237.65	--	--	--	--	--	--	--	--
8/8/2007	NP		248.62	4.5	24.5	12.95	--	235.67	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.70	7.11
11/14/2007	--		248.62	4.5	24.5	11.38	--	237.24	--	--	--	--	--	--	--	--
2/28/2008	--		248.62	4.5	24.5	9.01	--	239.61	--	--	--	--	--	--	--	--
5/23/2008	--		248.62	4.5	24.5	11.20	--	237.42	--	--	--	--	--	--	--	--
MW-5																
3/15/1995	--		244.82	5.0	24.5	11.99	--	232.83	21,000	870	22	1,600	1,900	--	--	--
5/30/1995	--		244.82	5.0	24.5	12.97	--	231.85	17,000	2,100	250	1,000	520	--	--	--
9/1/1995	--		244.82	5.0	24.5	14.03	--	230.79	19,000	1,500	25	1,600	880	8,300	--	--
11/13/1995	--		244.82	5.0	24.5	13.65	--	231.17	21,000	1,300	22	1,400	630	--	--	--
2/23/1996	--		244.82	5.0	24.5	11.93	--	232.89	27,000	1,300	<50	1,600	1,500	730	--	--
5/10/1996	--		244.82	5.0	24.5	13.05	--	231.77	17,000	460	21	760	480	1,000	--	--
8/9/1996	--		244.82	5.0	24.5	13.22	--	231.60	16,000	420	14	870	390	1,500	--	--
11/8/1996	--	e	244.82	5.0	24.5	--	--	--	--	--	--	--	--	--	--	--
3/21/1997	--		244.82	5.0	24.5	13.24	--	231.58	18,000	110	<50	730	1,500	1,800	--	--
5/27/1997	--		244.82	5.0	24.5	13.10	--	231.72	21,000	86	<20	810	610	1,700	--	--
8/5/1997	--		244.82	5.0	24.5	13.14	--	231.68	340	2.2	<0.5	15	8.8	39	--	--
10/29/1997	--		244.82	5.0	24.5	13.03	--	231.79	19,000	130	<20	1,400	620	1,700	--	--
2/25/1998	--		244.82	5.0	24.5	11.33	--	233.49	8,500	19	13	190	100	170	--	--
5/12/1998	--		244.82	5.0	24.5	12.81	--	232.01	10,000	34	<10	390	220	610	--	--
7/28/1998	--		244.82	5.0	24.5	13.12	--	231.70	15,000	68	<10	690	620	1,000	--	--
10/27/1998	--		244.82	5.0	24.5	12.90	--	231.92	15,000	60	<10	770	400	890	--	--
2/8/1999	--		244.82	5.0	24.5	11.08	--	233.74	8,200	23	<10	290	120	<60	--	--
6/1/1999	NP		244.82	5.0	24.5	12.95	--	231.87	11,000	33	3.3	340	180	580	1	6.49
8/25/1999	NP		244.82	5.0	24.5	12.99	--	231.83	9,200	26	14	420	270	1,100	0.37	7.78
10/29/1999	NP		244.82	5.0	24.5	13.10	--	231.72	11,000	19	9.8	260	150	590	1.27	6.2
2/16/2000	NP		244.82	5.0	24.5	8.21	--	236.61	12,000	8.1	10	340	160	130	1.42	--
6/23/2000	NP		244.82	5.0	24.5	12.90	--	231.92	9,680	38	<20.0	212	114	930	1.4	--
8/17/2000	NP		244.82	5.0	24.5	13.00	--	231.82	10,500	15	7.98	223	118	430	0.68	--
11/10/2000	NP		244.82	5.0	24.5	12.50	--	232.32	7,030	19.7	<10.0	190	43.6	445	1.27	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
MW-5 Cont.																
2/12/2001	NP		244.82	5.0	24.5	12.81	--	232.01	8,840	33.9	<10.0	186	56.4	352	0.4	--
4/13/2001	NP		244.82	5.0	24.5	11.31	--	233.51	9,020	54.2	43.3	137	96	297	--	--
7/18/2001	NP		244.82	5.0	24.5	11.59	--	233.23	13,000	19	10	110	49	230	--	--
10/1/2001	NP		244.82	5.0	24.5	11.84	--	232.98	8,500	6.9	<1.0	87	27	220	--	--
1/14/2002	NP		244.82	5.0	24.5	10.75	--	234.07	9,500	<20	<20	140	22	<200	--	--
4/3/2002	NP		244.82	5.0	24.5	12.50	--	232.32	2,400	21	<5.0	91	8.5	130	--	--
4/3/2002	NP	f	244.82	5.0	24.5	--	--	--	2,700	24	5.1	92	8.5	130	--	--
8/8/2002	NP		244.82	5.0	24.5	12.83	--	231.99	2,000	<20	<20	48	<20	520	0.8	6.9
11/27/2002	NP		244.82	5.0	24.5	12.79	--	232.03	2,200	<10	<10	33	<10	150	0.8	6.4
2/10/2003	NP		244.82	5.0	24.5	12.62	--	232.20	2,600	<2.5	<2.5	47	4.2	100	0.7	6.6
6/3/2003	--		244.82	5.0	24.5	12.41	--	232.41	2,400	<5.0	<5.0	26	<5.0	160	1.8	6.3
8/14/2003	--	e	244.82	5.0	24.5	--	--	--	--	--	--	--	--	--	--	--
11/13/2003	NP		244.82	5.0	24.5	12.49	--	232.33	1,900	<5.0	<5.0	13	<5.0	90	0.9	6.4
02/13/2004	NP		250.55	5.0	24.5	12.38	--	238.17	1,400	1.4	1.9	23	3.6	90	1.1	62.8
05/05/2004	NP		250.55	5.0	24.5	12.68	--	237.87	5,800	<2.5	<2.5	13	<2.5	130	1.1	6.3
08/30/2004	P		250.55	5.0	24.5	12.96	--	237.59	4,100	<2.5	<2.5	<2.5	<2.5	85	--	6.4
11/08/2004	NP		250.55	5.0	24.5	12.10	--	238.45	3,300	14	1.9	17	6.1	69	1.05	6.0
02/07/2005	NP		250.55	5.0	24.5	12.02	--	238.53	3,500	<1.0	1.1	16	2.6	15	0.95	6.5
05/09/2005	NP	j	250.55	5.0	24.5	11.94	--	238.61	3,400	<1.0	1.7	12	2.2	19	2.2	6.7
08/11/2005	NP		250.55	5.0	24.5	12.77	--	237.78	5,700	<2.5	<2.5	13	<2.5	51	0.7	6.0
12/02/2005	NP		250.55	5.0	24.5	11.83	--	238.72	3,900	<2.5	<2.5	15	8.3	13	1.41	6.9
02/15/2006	NP		250.55	5.0	24.5	10.77	--	239.78	790	<0.50	<0.50	1.2	<0.50	<0.50	1.2	6.9
5/19/2006	NP		250.55	5.0	24.5	12.29	--	238.26	4,100	0.97	1.3	3.9	1.8	15	0.98	6.5
8/25/2006	P		250.55	5.0	24.5	12.62	--	237.93	3,700	<2.5	<2.5	4.0	<2.5	17	1.15	6.2
11/2/2006	P		250.55	5.0	24.5	12.90	--	237.65	5,700	<1.0	1.5	4.3	1.7	18	1.86	6.67
2/6/2007	NP		250.55	5.0	24.5	12.37	--	238.18	4,800	<1.0	<1.0	5.2	1.3	13	0.96	6.99
5/9/2007	NP		250.55	5.0	24.5	12.50	--	238.05	4,400	<1.0	<1.0	4.9	1.5	31	1.42	6.89
8/8/2007	NP		250.55	5.0	24.5	12.88	--	237.67	4,100	<1.0	<1.0	4.1	1.3	11	1.16	6.44
11/14/2007	NP		250.55	5.0	24.5	12.30	--	238.25	4,700	<1.0	<1.0	7.3	1.8	11	1.22	6.77
2/28/2008	NP		250.55	5.0	24.5	11.37	--	239.18	4,100	<2.5	<2.5	<2.5	<2.5	<2.5	1.15	6.67
5/23/2008	NP		250.55	5.0	24.5	11.68	--	238.87	4,700	<0.50	0.87	5.6	1.2	17	1.28	6.57

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
MW-5																
MW-6																
6/29/1995	--		--	17.0	31.5	6.63	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
9/1/1995	--		--	17.0	31.5	--	--	--	--	--	--	--	--	--	--	--
11/13/1995	--		--	17.0	31.5	7.70	--	--	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/23/1996	--		--	17.0	31.5	9.82	--	--	<50	<0.5	0.8	<0.5	0.6	<3	--	--
5/10/1996	--		--	17.0	31.5	15.25	--	--	--	--	--	--	--	--	--	--
8/9/1996	--		252.20	17.0	31.5	11.11	--	241.09	--	--	--	--	--	--	--	--
11/8/1996	--		252.20	17.0	31.5	9.31	--	242.89	--	--	--	--	--	--	--	--
3/21/1997	--		252.20	17.0	31.5	9.40	--	242.80	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/27/1997	--		252.20	17.0	31.5	7.08	--	245.12	--	--	--	--	--	--	--	--
8/5/1997	--		252.20	17.0	31.5	7.12	--	245.08	--	--	--	--	--	--	--	--
10/29/1997	--		252.20	17.0	31.5	7.42	--	244.78	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/25/1998	--		252.20	17.0	31.5	10.35	--	241.85	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/12/1998	--		252.20	17.0	31.5	15.83	--	236.37	--	--	--	--	--	--	--	--
7/28/1998	--		252.20	17.0	31.5	11.84	--	240.36	--	--	--	--	--	--	--	--
10/27/1998	--		252.20	17.0	31.5	9.73	--	242.47	--	--	--	--	--	--	--	--
2/8/1999	--		252.20	17.0	31.5	8.10	--	244.10	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/1/1999	--		252.20	17.0	31.5	17.84	--	234.36	--	--	--	--	--	--	--	--
8/25/1999	--		252.20	17.0	31.5	11.00	--	241.20	--	--	--	--	--	--	0.77	--
10/29/1999	--		252.20	17.0	31.5	9.03	--	243.17	--	--	--	--	--	--	3.42	--
2/16/2000	P		252.20	17.0	31.5	7.71	--	244.49	<50	<0.5	<0.5	<0.5	<1	<3	2.42	--
6/23/2000	--		252.20	17.0	31.5	6.69	--	245.51	--	--	--	--	--	--	2.3	--
8/17/2000	--		252.20	17.0	31.5	6.95	--	245.25	--	--	--	--	--	--	2.51	--
11/10/2000	--		252.20	17.0	31.5	11.79	--	240.41	--	--	--	--	--	--	--	--
2/12/2001	P		252.20	17.0	31.5	7.35	--	244.85	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.66	7.77
2/12/2001	--	f	--	17.0	31.5	--	--	--	--	--	--	--	--	--	--	--
4/13/2001	--		252.20	17.0	31.5	10.52	--	241.68	--	--	--	--	--	--	--	--
7/18/2001	--		252.20	17.0	31.5	11.03	--	241.17	--	--	--	--	--	--	--	--
10/1/2001	--		252.20	17.0	31.5	11.31	--	240.89	--	--	--	--	--	--	--	--
1/14/2002	P		252.20	17.0	31.5	9.87	--	242.33	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
MW-6 Cont.																
4/3/2002	--		252.20	17.0	31.5	12.19	--	240.01	--	--	--	--	--	--	--	--
8/8/2002	--		252.20	17.0	31.5	7.04	--	245.16	--	--	--	--	--	--	--	--
11/27/2002	--		252.20	17.0	31.5	6.85	--	245.35	--	--	--	--	--	--	--	--
2/10/2003	NP		252.20	17.0	31.5	6.74	--	245.46	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	7.4
6/3/2003	--		252.20	17.0	31.5	14.35	--	237.85	--	--	--	--	--	--	--	--
8/14/2003	--		252.20	17.0	31.5	10.74	--	241.46	--	--	--	--	--	--	--	--
11/13/2003	--		252.20	17.0	31.5	10.68	--	241.52	--	--	--	--	--	--	--	--
02/13/2004	--		257.94	17.0	31.5	7.38	--	250.56	--	--	--	--	--	--	--	--
05/05/2004	--		257.94	17.0	31.5	7.43	--	250.51	--	--	--	--	--	--	--	--
08/30/2004	P		257.94	17.0	31.5	7.39	--	250.55	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.5	7.0
11/08/2004	--		257.94	17.0	31.5	15.57	--	242.37	--	--	--	--	--	--	--	--
02/07/2005	--		257.94	17.0	31.5	15.26	--	242.68	--	--	--	--	--	--	--	--
05/09/2005	--		257.94	17.0	31.5	11.31	--	246.63	--	--	--	--	--	--	--	--
08/11/2005	P		257.94	17.0	31.5	9.80	--	248.14	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	7.1
12/02/2005	--		257.94	17.0	31.5	14.55	--	243.39	--	--	--	--	--	--	--	--
02/15/2006	--		257.94	17.0	31.5	10.33	--	247.61	--	--	--	--	--	--	--	--
5/19/2006	--		257.94	17.0	31.5	6.50	--	251.44	--	--	--	--	--	--	--	--
8/25/2006	P		257.94	17.0	31.5	6.75	--	251.19	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.90	6.6
11/2/2006	--		257.94	17.0	31.5	7.15	--	250.79	--	--	--	--	--	--	--	--
2/6/2007	--		257.94	17.0	31.5	6.93	--	251.01	--	--	--	--	--	--	--	--
5/9/2007	--		257.94	17.0	31.5	7.03	--	250.91	--	--	--	--	--	--	--	--
8/8/2007	P		257.94	17.0	31.5	7.01	--	250.93	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.64	7.12
11/14/2007	--		257.94	17.0	31.5	7.25	--	250.69	--	--	--	--	--	--	--	--
2/28/2008	--		257.94	17.0	31.5	6.85	--	251.09	--	--	--	--	--	--	--	--
5/23/2008	--		257.94	17.0	31.5	7.15	--	250.79	--	--	--	--	--	--	--	--
MW-7																
8/9/1996	--	g	235.95	8.5	13.5	--	--	--	--	--	--	--	--	--	--	--
11/8/1996	--	g	235.95	8.5	13.5	--	--	--	--	--	--	--	--	--	--	--
1/27/1997	--		235.95	8.5	13.5	--	--	--	2,900	29	<5	<5	580	220	--	--
3/21/1997	--		235.95	8.5	13.5	7.13	--	228.82	590	3.5	<0.5	<0.5	1.3	90	--	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
MW-7 Cont.																
5/27/1997	--		235.95	8.5	13.5	9.02	--	226.93	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
8/5/1997	--		235.95	8.5	13.5	12.33	--	223.62	110	0.5	<0.5	<0.5	0.8	81	--	--
10/29/1997	--	g	235.95	8.5	13.5	--	--	--	--	--	--	--	--	--	--	--
2/25/1998	--		235.95	8.5	13.5	8.04	--	227.91	<50	<0.5	0.6	<0.5	0.7	<3	--	--
5/12/1998	--		235.95	8.5	13.5	8.88	--	227.07	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
7/28/1998	--		235.95	8.5	13.5	10.50	--	225.45	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
10/27/1998	--		235.95	8.5	13.5	8.75	--	227.20	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/8/1999	--		235.95	8.5	13.5	9.35	--	226.60	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/1/1999	NP		235.95	8.5	13.5	9.85	--	226.10	250	<0.5	0.6	<0.5	1.6	18	1	6.43
8/25/1999	NP		235.95	8.5	13.5	11.31	--	224.64	119	<0.5	5.7	<0.5	<0.5	11	0.41	8.28
10/29/1999	NP		235.95	8.5	13.5	9.08	--	226.87	<50	<0.5	<0.5	<0.5	<1	<3	1.29	5.82
2/25/2000	NP		235.95	8.5	13.5	8.02	--	227.93	<50	<0.5	<0.5	<0.5	<1	38	2.1	--
6/23/2000	NP		235.95	8.5	13.5	10.68	--	225.27	<50	<0.50	<0.50	<0.50	<0.50	14.4	1.6	--
8/17/2000	NP		235.95	8.5	13.5	11.85	--	224.10	70	<0.500	0.678	<0.500	1.07	14.2	1.59	--
11/10/2000	NP		235.95	8.5	13.5	9.62	--	226.33	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.09	--
2/12/2001	NP		235.95	8.5	13.5	12.10	--	223.85	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.84	--
4/13/2001	P		235.95	8.5	13.5	7.95	--	228.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
7/18/2001	P		235.95	8.5	13.5	8.20	--	227.75	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
10/1/2001	NP		235.95	8.5	13.5	8.59	--	227.36	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
1/14/2002	P		235.95	8.5	13.5	6.93	--	229.02	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
4/3/2002	P		235.95	8.5	13.5	8.31	--	227.64	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
8/8/2002	P	h	235.95	8.5	13.5	12.11	--	223.84	--	--	--	--	--	--	--	--
11/27/2002	NP	h	235.95	8.5	13.5	13.01	--	222.94	--	--	--	--	--	--	--	--
2/10/2003	NP		235.95	8.5	13.5	10.02	--	225.93	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	6.7
6/3/2003	NP		235.95	8.5	13.5	6.82	--	229.13	<50	<0.50	<0.50	<0.50	<0.50	<0.50	8.1	6.8
8/14/2003	P		235.95	8.5	13.5	8.16	--	227.79	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.8	6.7
11/13/2003	--		235.95	8.5	13.5	8.07	--	227.88	--	--	--	--	--	--	--	--
02/13/2004	--		241.64	8.5	13.5	7.62	--	234.02	--	--	--	--	--	--	--	--
05/05/2004	--		241.64	8.5	13.5	11.01	--	230.63	--	--	--	--	--	--	--	--
08/30/2004	--	h	241.64	8.5	13.5	13.27	--	228.37	--	--	--	--	--	--	--	--
11/08/2004	--		241.64	8.5	13.5	13.22	--	228.42	--	--	--	--	--	--	--	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
MW-7 Cont.																
02/07/2005	--		241.64	8.5	13.5	13.07	--	228.57	--	--	--	--	--	--	--	--
05/09/2005	--		241.64	8.5	13.5	7.57	--	234.07	--	--	--	--	--	--	--	--
08/11/2005	NP		241.64	8.5	13.5	11.55	--	230.09	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	6.7
12/02/2005	--		241.64	8.5	13.5	13.12	--	228.52	--	--	--	--	--	--	--	--
02/15/2006	--		241.64	8.5	13.5	7.27	--	234.37	--	--	--	--	--	--	--	--
5/19/2006	--		241.64	8.5	13.5	7.84	--	233.80	--	--	--	--	--	--	--	--
8/25/2006	P		241.64	8.5	13.5	12.19	--	229.45	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.33	6.2
11/2/2006	--		241.64	8.5	13.5	13.15	--	228.49	--	--	--	--	--	--	--	--
2/6/2007	--		241.64	8.5	13.5	11.12	--	230.52	--	--	--	--	--	--	--	--
5/9/2007	--		241.64	8.5	13.5	11.60	--	230.04	--	--	--	--	--	--	--	--
8/8/2007	--	g	241.64	8.5	13.5	--	--	--	--	--	--	--	--	--	--	--
11/14/2007	--	g	241.64	8.5	13.5	--	--	--	--	--	--	--	--	--	--	--
2/28/2008	--		241.64	8.5	13.5	7.70	--	233.94	--	--	--	--	--	--	--	--
5/23/2008	--		241.64	8.5	13.5	5.15	--	236.49	--	--	--	--	--	--	--	--
MW-8																
8/9/1996	--		240.37	5.5	14.0	9.41	--	230.96	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<3	--
11/8/1996	--		240.37	5.5	14.0	9.19	--	231.18	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<3	--
3/21/1997	--		240.37	5.5	14.0	8.55	--	231.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<3	--
5/27/1997	--		240.37	5.5	14.0	11.06	--	229.31	91	0.6	<0.5	<0.5	0.6	66	--	--
8/5/1997	--		240.37	5.5	14.0	9.32	--	231.05	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<3	--
10/29/1997	--		240.37	5.5	14.0	9.35	--	231.02	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<3	--
2/25/1998	--		240.37	5.5	14.0	7.08	--	233.29	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<3	--
5/12/1998	--		240.37	5.5	14.0	8.61	--	231.76	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<3	--
7/28/1998	--		240.37	5.5	14.0	9.63	--	230.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5	4	--
10/27/1998	--		240.37	5.5	14.0	9.30	--	231.07	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<3	--
2/8/1999	--		240.37	5.5	14.0	5.56	--	234.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<3	--
6/1/1999	--	e	240.37	5.5	14.0	--	--	--	--	--	--	--	--	--	--	--
8/25/1999	--	e	240.37	5.5	14.0	--	--	--	--	--	--	--	--	--	--	--
10/29/1999	--	e	240.37	5.5	14.0	--	--	--	--	--	--	--	--	--	--	--
2/16/2000	--	e	240.37	5.5	14.0	--	--	--	--	--	--	--	--	--	--	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH	
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE			
MW-8 Cont.																	
6/23/2000	NP		240.37	5.5	14.0	9.45	--	230.92	<50	<0.50	<0.50	<0.500	<0.50	<2.5	1.9	--	
8/17/2000	NP		240.37	5.5	14.0	6.40	--	233.97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.56	--	
11/10/2000	--	f	240.37	5.5	14.0	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	
11/10/2000	NP		240.37	5.5	14.0	6.25	--	234.12	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.93	--	
2/12/2001	NP		240.37	5.5	14.0	8.11	--	232.26	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.65	--	
4/13/2001	P		240.37	5.5	14.0	5.19	--	235.18	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	
7/18/2001	NP		240.37	5.5	14.0	5.55	--	234.82	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	
10/1/2001	NP		240.37	5.5	14.0	6.41	--	233.96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	
1/14/2002	P		240.37	5.5	14.0	5.07	--	235.30	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	
4/3/2002	P		240.37	5.5	14.0	8.60	--	231.77	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	
8/8/2002	P		240.37	5.5	14.0	9.58	--	230.79	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.7	7	
11/27/2002	P		240.37	5.5	14.0	9.15	--	231.22	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	3.1	6.7
2/10/2003	P		240.37	5.5	14.0	8.55	--	231.82	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	6.6
6/3/2003	--		240.37	5.5	14.0	8.72	--	231.65	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	9.1	6.3
8/14/2003	--		240.37	5.5	14.0	9.52	--	230.85	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	5.5	6.4
11/13/2003	--		240.37	5.5	14.0	9.45	--	230.92	--	--	--	--	--	--	--	--	
02/13/2004	--		246.09	5.5	14.0	8.38	--	237.71	--	--	--	--	--	--	--	--	
05/05/2004	--		246.09	5.5	14.0	9.30	--	236.79	--	--	--	--	--	--	--	--	
08/30/2004	P		246.09	5.5	14.0	9.69	--	236.40	<50	<0.50	<0.50	<0.50	0.75	<0.50	5.1	6.5	
11/08/2004	--		246.09	5.5	14.0	8.34	--	237.75	--	--	--	--	--	--	--	--	
02/07/2005	--		246.09	5.5	14.0	8.23	--	237.86	--	--	--	--	--	--	--	--	
05/09/2005	--		246.09	5.5	14.0	7.07	--	239.02	--	--	--	--	--	--	--	--	
08/11/2005	--	e	246.09	5.5	14.0	--	--	--	--	--	--	--	--	--	--	--	
12/02/2005	--		246.09	5.5	14.0	8.15	--	237.94	--	--	--	--	--	--	--	--	
02/15/2006	--	e	246.09	5.5	14.0	--	--	--	--	--	--	--	--	--	--	--	
5/19/2006	--		246.09	5.5	14.0	8.48	--	237.61	--	--	--	--	--	--	--	--	
8/25/2006	P		246.09	5.5	14.0	9.45	--	236.64	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.27	6.0	
11/2/2006	--		--	5.5	14.0	--	--	--	--	--	--	--	--	--	--	--	
2/6/2007	--		246.09	5.5	14.0	--	--	--	--	--	--	--	--	--	--	--	
5/9/2007	--	e	246.09	5.5	14.0	--	--	--	--	--	--	--	--	--	--	--	
8/8/2007	--	e	246.09	5.5	14.0	--	--	--	--	--	--	--	--	--	--	--	

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH	
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE			
MW-8 Cont.																	
11/14/2007	--		246.09	5.5	14.0	8.78	--	237.31	--	--	--	--	--	--	--	--	
2/28/2008	--		246.09	5.5	14.0	7.77	--	238.32	--	--	--	--	--	--	--	--	
5/23/2008	--		246.09	5.5	14.0	8.30	--	237.79	--	--	--	--	--	--	--	--	
VW-1																	
2/23/1996	--		--	6.0	14.0	5.29	--	--	21,000	490	57	520	1,500	240	--	--	
5/10/1996	--		--	6.0	14.0	6.80	--	--	3,700	61	<5	100	50	200	--	--	
8/9/1996	--		--	6.0	14.0	7.03	--	--	970	2.7	<2.5	2.7	3.7	180	--	--	
11/8/1996	--	e	--	6.0	14.0	--	--	--	--	--	--	--	--	--	--	--	
3/21/1997	--		--	6.0	14.0	7.51	--	--	640	<4	<1	1	3	194	--	--	
5/27/1997	--		--	6.0	14.0	7.51	--	--	--	--	--	--	--	--	--	--	
8/5/1997	--		--	6.0	14.0	7.51	--	--	630	<1	<1	3	2	120	--	--	
10/29/1997	--		--	6.0	14.0	7.53	--	--	600	<0.5	<0.5	<0.5	1.6	84	--	--	
2/25/1998	--		--	6.0	14.0	6.77	--	--	230	<4	<0.7	1.2	0.5	27	--	--	
5/12/1998	--		--	6.0	14.0	7.43	--	--	340	<0.5	0.5	2.3	0.8	29	--	--	
7/28/1998	--		--	6.0	14.0	7.00	--	--	240	<0.5	<0.5	<0.5	1.1	54	--	--	
10/27/1998	--		--	6.0	14.0	7.52	--	--	230	<0.5	<0.5	<0.5	<0.5	65	--	--	
2/8/1999	--	c	--	6.0	14.0	7.05	--	--	<50	<0.5	<0.5	<0.5	<0.5	<3/36	--	--	
6/1/1999	NP		--	6.0	14.0	7.55	--	--	180	<0.5	<0.5	<0.5	<0.5	23	1	6.36	
8/25/1999	NP		--	6.0	14.0	7.66	--	--	130	<0.5	5.6	<0.5	<0.5	40	0.39	7.5	
10/29/1999	NP		--	6.0	14.0	7.59	--	--	200	1	<0.5	0.6	1.6	36	0.89	5.65	
2/16/2000	NP		--	6.0	14.0	7.03	--	--	210	<0.5	0.9	2.2	1.9	11	1.41	--	
6/23/2000	NP		--	6.0	14.0	7.71	--	--	175	1.04	<0.500	<0.500	<0.500	<0.500	14.4	1.9	--
8/17/2000	NP		--	6.0	14.0	7.75	--	--	180	<0.500	<0.500	0.622	0.76	23.7	0.63	--	
11/10/2000	NP		--	6.0	14.0	6.83	--	--	157	0.955	<0.500	0.973	<0.500	32.5	1.03	--	
2/12/2001	NP		--	6.0	14.0	7.85	--	--	273	0.627	<0.500	<0.500	0.507	9.19	0.47	--	
4/13/2001	P		--	6.0	14.0	5.11	--	--	213	<0.500	<0.500	<0.500	<0.500	<0.500	6.38	--	--
7/18/2001	P		--	6.0	14.0	5.39	--	--	270	<0.50	<0.50	<0.50	<0.50	20	--	--	
10/1/2001	NP		--	6.0	14.0	6.50	--	--	200	<0.50	<0.50	<0.50	<0.50	0.81	14	--	--
1/14/2002	P		--	6.0	14.0	5.04	--	--	110	<0.50	<0.50	<0.50	<0.50	<0.50	6.4	--	--
4/3/2002	P		--	6.0	14.0	7.51	--	--	91	0.72	<0.50	<0.50	<0.50	12	--	--	

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
VW-1 Cont.																
8/8/2002	P		--	6.0	14.0	9.58	--	--	<50	<0.50	<0.50	<0.50	<0.50	33	0.6	6.3
11/27/2002	P		--	6.0	14.0	7.42	--	--	52	0.72	0.78	<0.50	<0.50	21	1	6.1
2/10/2003	NP		--	6.0	14.0	7.38	--	--	52	<0.50	<0.50	<0.50	<0.50	11	1.7	6.5
6/3/2003	--		--	6.0	14.0	7.30	--	--	71	<0.50	<0.50	<0.50	<0.50	13	3.3	6.3
8/14/2003	--		--	6.0	14.0	7.59	--	--	<50	<0.50	<0.50	<0.50	<0.50	18	0.3	6.1
11/13/2003	P		--	6.0	14.0	7.43	--	--	<50	<0.50	<0.50	<0.50	<0.50	13	0.6	6.1
02/13/2004	P		253.19	6.0	14.0	7.35	--	245.84	59	<0.50	<0.50	<0.50	0.56	8.0	1.0	6.0
05/05/2004	P		253.19	6.0	14.0	7.30	--	245.89	<50	0.71	<0.50	<0.50	0.60	11	0.1	6.4
08/30/2004	P		253.19	6.0	14.0	8.50	--	244.69	<50	<0.50	<0.50	<0.50	<0.50	24	0.2	6.2
11/08/2004	P		253.19	6.0	14.0	7.22	--	245.97	230	<0.50	<0.50	<0.50	0.75	27	0.65	5.1
02/07/2005	P		253.19	6.0	14.0	7.25	--	245.94	<50	<0.50	<0.50	<0.50	<0.50	5.1	1.57	5.9
05/09/2005	P		253.19	6.0	14.0	7.10	--	246.09	64	<0.50	<0.50	<0.50	<0.50	6.9	3.5	--
08/11/2005	P		253.19	6.0	14.0	7.89	--	245.30	<50	<0.50	<0.50	<0.50	<0.50	10	0.04	6.3
12/02/2005	P		253.19	6.0	14.0	7.32	--	245.87	130	<0.50	<0.50	<0.50	0.57	9.0	1.85	6.6
02/15/2006	P		253.19	6.0	14.0	7.16	--	246.03	<50	<0.50	<0.50	<0.50	<0.50	2.8	0.9	6.2
5/19/2006	P		253.19	6.0	14.0	7.24	--	245.95	<50	0.71	<0.50	0.65	1.4	3.7	0.85	6.2
8/25/2006	P		253.19	6.0	14.0	7.48	--	245.71	50	<0.50	<0.50	<0.50	<0.50	8.3	0.49	6.2
11/2/2006	P		253.19	6.0	14.0	7.77	--	245.42	57	<0.50	<0.50	<0.50	<0.50	11	1.84	6.88
2/6/2007	NP		253.19	6.0	14.0	7.35	--	245.84	64	<0.50	<0.50	<0.50	<0.50	2.3	0.70	6.92
5/9/2007	NP		253.19	6.0	14.0	7.40	--	245.79	<50	<0.50	<0.50	<0.50	<0.50	3.2	1.16	6.72
8/8/2007	NP		253.19	6.0	14.0	7.85	--	245.34	87	<0.50	<0.50	<0.50	<0.50	1.9	1.46	7.07
11/14/2007	NP		253.19	6.0	14.0	7.52	--	245.67	79	<0.50	<0.50	<0.50	<0.50	3.7	1.49	6.47
2/28/2008	NP		253.19	6.0	14.0	7.22	--	245.97	88	<0.50	<0.50	<0.50	<0.50	0.86	1.36	6.51
5/23/2008	NP		253.19	6.0	14.0	7.40	--	245.79	<50	<0.50	<0.50	<0.50	<0.50	0.91	1.05	6.92
VW-2																
2/23/1996	--	i	--	--	--	6.92	--	--	--	--	--	--	--	--	--	--
8/8/2002	--	i	--	--	--	10.51	--	--	--	--	--	--	--	--	--	--
VW-3																
8/8/2002	--		--	5.5	14.5	8.85	--	--	<50	<0.50	<0.50	<0.50	<0.50	2.5	0.7	6.1

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
VW-3 Cont.									--	--	--	--	--	--	--	--
11/27/2002	--	i	--	5.5	14.5	8.80	--	--	--	--	--	--	--	--	--	--
2/10/2003	--	i	--	5.5	14.5	8.41	--	--	--	--	--	--	--	--	--	--
6/3/2003	--	i	--	5.5	14.5	8.71	--	--	--	--	--	--	--	--	--	--
8/14/2003	--	i	--	5.5	14.5	8.81	--	--	--	--	--	--	--	--	--	--
11/13/2003	--		--	5.5	14.5	8.75	--	--	--	--	--	--	--	--	--	--
02/13/2004	--		252.26	5.5	14.5	8.48	--	243.78	--	--	--	--	--	--	--	--
05/05/2004	--		252.26	5.5	14.5	8.85	--	243.41	--	--	--	--	--	--	--	--
08/30/2004	--		252.26	5.5	14.5	9.07	--	243.19	--	--	--	--	--	--	--	--
11/08/2004	--		252.26	5.5	14.5	8.32	--	243.94	--	--	--	--	--	--	--	--
02/07/2005	--		252.26	5.5	14.5	8.28	--	243.98	--	--	--	--	--	--	--	--
05/09/2005	--		252.26	5.5	14.5	8.44	--	243.82	--	--	--	--	--	--	--	--
08/11/2005	--		252.26	5.5	14.5	8.96	--	243.30	--	--	--	--	--	--	--	--
12/02/2005	--		252.26	5.5	14.5	8.26	--	244.00	--	--	--	--	--	--	--	--
02/15/2006	--		252.26	5.5	14.5	7.61	--	244.65	--	--	--	--	--	--	--	--
5/19/2006	--		252.26	5.5	14.5	8.83	--	243.43	--	--	--	--	--	--	--	--
8/25/2006	--		252.26	5.5	14.5	8.95	--	243.31	--	--	--	--	--	--	--	--
11/2/2006	--		252.26	5.5	14.5	9.08	--	243.18	--	--	--	--	--	--	--	--
2/6/2007	--		252.26	5.5	14.5	8.61	--	243.65	--	--	--	--	--	--	--	--
5/9/2007	--		252.26	5.5	14.5	8.79	--	243.47	--	--	--	--	--	--	--	--
8/8/2007	--		252.26	5.5	14.5	9.10	--	243.16	--	--	--	--	--	--	--	--
11/14/2007	--		252.26	5.5	14.5	8.52	--	243.74	--	--	--	--	--	--	--	--
2/28/2008	--		252.26	5.5	14.5	8.27	--	243.99	--	--	--	--	--	--	--	--
5/23/2008	--		252.26	5.5	14.5	8.95	--	243.31	--	--	--	--	--	--	--	--
VW-4																
5/10/1996	--		--	5.5	14.5	8.58	--	--	13,000	2,500	41	420	660	43,000	--	--
8/9/1996	--		--	5.5	14.5	11.70	--	--	<50	<0.5	<0.5	<0.5	<0.5	6,200	--	--
11/8/1996	--		--	5.5	14.5	9.38	--	--	7,800	510	7	180	370	21,000	--	--
3/21/1997	--		--	5.5	14.5	9.11	--	--	10,000	290	10	270	230	8,900	--	--
5/27/1997	--		--	5.5	14.5	9.34	--	--	--	--	--	--	--	--	--	--
8/5/1997	--		--	5.5	14.5	9.47	--	--	<10,000	180	<100	<100	110	12,000	--	--

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
VW-4 Cont.																
10/29/1997	--		--	5.5	14.5	9.35	--	--	9,800	200	69	260	360	4,900	--	--
2/25/1998	--		--	5.5	14.5	7.08	--	--	<50	2.5	<0.5	<0.5	0.7	<3	--	--
5/12/1998	--		--	5.5	14.5	9.17	--	--	3,200	<20	22	29	52	2,100	--	--
7/28/1998	--		--	5.5	14.5	9.55	--	--	<10,000	<100	<100	<100	<100	5,100	--	--
10/27/1998	--		--	5.5	14.5	9.92	--	--	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/8/1999	--	c	--	5.5	14.5	7.50	--	--	<2,500	<25	<25	28	<25	2,400/3,100	--	--
6/1/1999	NP		--	5.5	14.5	9.87	--	--	2,100	2.5	1.1	2.5	15	3,300	2	6.69
8/25/1999	NP		--	5.5	14.5	9.78	--	--	1,300	4.4	4.9	1.7	2.9	4,600	0.36	7.94
10/29/1999	NP		--	5.5	14.5	9.93	--	--	1,400	<0.5	1.8	1.6	3	4,200	1.18	6.64
2/16/2000	NP		--	5.5	14.5	7.45	--	--	1,800	<0.5	2.9	15	10	3,400	1.01	--
6/23/2000	--	f	--	5.5	14.5	--	--	--	1,260	<2.00	<2.00	<2.00	2.73	2,720	--	--
6/23/2000	NP		--	5.5	14.5	9.74	--	--	1,360	<2.00	2.26	<2.00	2.25	4,900	1.5	--
8/17/2000	NP		--	5.5	14.5	9.95	--	--	2,230	<10.0	<10.0	<10.0	<10.0	5,310	1.13	--
11/10/2000	NP		--	5.5	14.5	9.22	--	--	1,390	18.5	<5.00	<5.00	<5.00	8,840	1.25	--
2/12/2001	NP		--	5.5	14.5	8.99	--	--	1,400	9.42	<2.00	17.8	16.1	3,570	0.91	--
4/13/2001	NP		--	5.5	14.5	7.80	--	--	556	3.82	<1.25	<1.25	<1.25	2,450	--	--
7/18/2001	--	f	--	5.5	14.5	--	--	--	2,000	8.7	2.2	<2.0	<2.0	3,400	--	--
7/18/2001	NP		--	5.5	14.5	7.73	--	--	2,100	9.2	<2.0	<2.0	<2.0	3,700	--	--
10/1/2001	--	f	--	5.5	14.5	--	--	--	1,800	<10	<10	<10	<10	5,800	--	--
10/1/2001	NP		--	5.5	14.5	6.69	--	--	2,000	<10	<10	<10	13	5,900	--	--
1/14/2002	P		--	5.5	14.5	5.93	--	--	580	<2.0	<2.0	<2.0	<2.0	2,700	--	--
4/3/2002	NP		--	5.5	14.5	9.60	--	--	1,400	5.2	16	<5.0	9.6	2,200	--	--
8/8/2002	--	i	--	5.5	14.5	10.01	--	--	--	--	--	--	--	--	--	--
11/27/2002	P		--	5.5	14.5	10.30	--	--	<10,000	<100	<100	<100	<100	3,800	1.7	6.7
2/10/2003	NP		--	5.5	14.5	10.06	--	--	<5,000	<50	<50	<50	<50	2,500	1	6.8
6/3/2003	--		--	5.5	14.5	10.04	--	--	<1,000	<10	<10	<10	<10	440	1.9	6.6
8/14/2003	--		--	5.5	14.5	9.66	--	--	<500	<5.0	<5.0	<5.0	<5.0	170	0.8	6.7
11/13/2003	P		--	5.5	14.5	10.01	--	--	<500	<5.0	<5.0	<5.0	<5.0	130	1.7	6.4
02/13/2004	P		252.69	5.5	14.5	9.34	--	243.35	330	<2.5	<2.5	<2.5	3.0	210	2.0	6.6
05/05/2004	P		252.69	5.5	14.5	10.07	--	242.62	130	<1.0	<1.0	<1.0	<1.0	66	1.2	6.8
08/30/2004	P		252.69	5.5	14.5	10.32	--	242.37	<500	<5.0	<5.0	<5.0	<5.0	220	1.1	6.6

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
VW-4 Cont.																
11/08/2004	P		252.69	5.5	14.5	9.35	--	243.34	480	<2.5	<2.5	<2.5	<2.5	140	1.1	6.0
02/07/2005	P		252.69	5.5	14.5	9.22	--	243.47	180	<0.50	<0.50	<0.50	<0.50	47	1.83	6.5
05/09/2005	P		252.69	5.5	14.5	9.78	--	242.91	120	0.63	<0.50	<0.50	<0.50	37	--	--
08/11/2005	P		252.69	5.5	14.5	10.11	--	242.58	74	<0.50	<0.50	<0.50	<0.50	15	0.7	6.7
12/02/2005	P		252.69	5.5	14.5	9.59	--	243.10	160	<1.0	<1.0	<1.0	<1.0	28	0.75	6.9
02/15/2006	P		252.69	5.5	14.5	8.56	--	244.13	64	<0.50	<0.50	<0.50	<0.50	11	0.9	6.9
5/19/2006	P		252.69	5.5	14.5	9.95	--	242.74	150	<0.50	<0.50	<0.50	1.2	16	0.76	6.7
8/25/2006	P		252.69	5.5	14.5	10.03	--	242.66	140	<0.50	<0.50	<0.50	<0.50	17	1.14	6.7
11/2/2006	P		252.69	5.5	14.5	10.13	--	242.56	120	<0.50	<0.50	<0.50	<0.50	20	1.76	6.49
2/6/2007	NP		252.69	5.5	14.5	9.57	--	243.12	<50	<0.50	<0.50	<0.50	<0.50	1.6	0.98	6.89
5/9/2007	NP		252.69	5.5	14.5	9.75	--	242.94	110	<0.50	<0.50	<0.50	<0.50	21	0.76	6.94
8/8/2007	NP		252.69	5.5	14.5	10.13	--	242.56	140	<0.50	<0.50	<0.50	<0.50	5.4	0.88	6.81
11/14/2007	NP		252.69	5.5	14.5	9.81	--	242.88	150	<0.50	<0.50	<0.50	<0.50	6.4	1.17	6.67
2/28/2008	NP		252.69	5.5	14.5	9.00	--	243.69	<50	<0.50	<0.50	<0.50	<0.50	8.4	0.92	6.55
5/23/2008	NP		252.69	5.5	14.5	9.73	--	242.96	68	<1.0	<1.0	<1.0	<1.0	6.4	1.40	6.92

SYMBOLS AND ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available
< = Not detected at or above laboratory reporting limit
BTEX = Benzene, toluene, ethylbenzene and xylenes
DO = Dissolved oxygen
DTW = Depth to water in ft bgs
ft bgs = feet below ground surface
ft MSL = feet above mean sea level
GRO = Gasoline range organics
GWE = Groundwater elevation measured in ft MSL
mg/L = Milligrams per liter
MTBE = Methyl tert butyl ether
NP = Well not purged prior to sampling
P = Well purged prior to sampling
TOC = Top of casing measured in ft MSL
TPH-g = Total petroleum hydrocarbons as gasoline
µg/L = Micrograms per liter

FOOTNOTES:

a = SPH detected and GWE corrected: Corrected elevation (Z') = $Z + (h * 0.73)$ where: Z: measured elevation, h: floating product thickness, 0.73: density ratio of oil to water.
b = MTBE analyzed by EPA method 8240.
c = MTBE, sample also analyzed for fuel oxygenates.
d = Well was decommissioned on 2/12/1996.
e = Well inaccessible.
f = Duplicate
g = Well was dry.
h = Insufficient water to sample.
i = Well is not part of the sampling program and therefore was not sampled.
j = Sheen in well.
k = Could not locate well.

NOTES:

Wells surveyed to NAVD'88 datum on 1/27/2004.

Beginning on the first quarter 2003 sampling event (2/10/2003), TPH-g, BTEX and MTBE analyzed by EPA method 8260. Prior to 2/10/2003, BTEX by EPA method 8021B from 10/29/99 to 2/10/03, and 8020 prior to 10/29/99.

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported.

Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12.

Values for DO and pH were obtained through field measurements.

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

Table 2. Summary of Fuel Additives Analytical Data
Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-3									
2/10/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	--	--	
08/30/2004	<100	<20	0.72	<0.50	<0.50	<0.50	<0.50	<0.50	
08/11/2005	<100	<20	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	
8/25/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-4									
2/10/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	--	--	
6/3/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
8/14/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
08/30/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
08/11/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/25/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-5									
2/10/2003	<200	<100	100	<0.50	<0.50	<0.50	--	--	
6/3/2003	<1,000	<200	160	<5.0	<5.0	<5.0	--	--	
11/13/2003	<1,000	<200	90	<5.0	<5.0	<5.0	--	--	
02/13/2004	<200	41	90	<1.0	<1.0	<1.0	<1.0	<1.0	
05/05/2004	<500	<100	130	<2.5	<2.5	<2.5	<2.5	<2.5	
08/30/2004	<500	100	85	<2.5	<2.5	<2.5	<2.5	<2.5	
11/08/2004	<200	43	69	<1.0	<1.0	<1.0	<1.0	<1.0	
02/07/2005	<200	<40	15	<1.0	<1.0	<1.0	<1.0	<1.0	
05/09/2005	<200	<40	19	<1.0	<1.0	<1.0	<1.0	<1.0	a
08/11/2005	<500	<100	51	<2.5	<2.5	<2.5	<2.5	<2.5	
12/02/2005	<500	<100	13	<2.5	<2.5	<2.5	<2.5	<2.5	
02/15/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
5/19/2006	<300	25	15	<0.50	<0.50	<0.50	<0.50	<0.50	a, c
8/25/2006	<1,500	<100	17	<2.5	<2.5	<2.5	<2.5	<2.5	
11/2/2006	<600	70	18	<1.0	<1.0	<1.0	<1.0	<1.0	a
2/6/2007	<600	45	13	<1.0	<1.0	<1.0	<1.0	<1.0	

Table 2. Summary of Fuel Additives Analytical Data
Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-5 Cont.									
5/9/2007	<600	69	31	<1.0	<1.0	<1.0	<1.0	<1.0	
8/8/2007	<600	<40	11	<1.0	<1.0	<1.0	<1.0	<1.0	
11/14/2007	<600	46	11	<1.0	<1.0	<1.0	<1.0	<1.0	
2/28/2008	<1,500	<50	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
5/23/2008	<300	52	17	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-6									
2/10/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	--	--	
08/30/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
08/11/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/25/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-7									
2/10/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	--	--	
6/3/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
8/14/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
08/11/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/25/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-8									
2/10/2003	<40	<20	<0.50	<0.50	<0.50	<0.50	--	--	
6/3/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
8/14/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
08/30/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
02/15/2006	--	--	--	--	--	--	--	--	Well inaccessible
8/25/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
VW-1									
2/10/2003	<40	<20	11	<0.50	<0.50	<0.50	--	--	
6/3/2003	<100	<20	13	<0.50	<0.50	<0.50	--	--	
8/14/2003	<100	<20	18	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	<100	<20	13	<0.50	<0.50	<0.50	--	--	

Table 2. Summary of Fuel Additives Analytical Data
Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
VW-1 Cont.									
02/13/2004	<100	<20	8.0	<0.50	<0.50	<0.50	<0.50	<0.50	
05/05/2004	<100	<20	11	<0.50	<0.50	<0.50	<0.50	<0.50	
08/30/2004	<100	<20	24	<0.50	<0.50	<0.50	<0.50	<0.50	
11/08/2004	<100	<20	27	<0.50	<0.50	<0.50	<0.50	<0.50	
02/07/2005	<100	<20	5.1	<0.50	<0.50	<0.50	<0.50	<0.50	
05/09/2005	<100	<20	6.9	<0.50	<0.50	<0.50	<0.50	<0.50	
08/11/2005	<100	<20	10	<0.50	<0.50	<0.50	<0.50	<0.50	
12/02/2005	<100	<20	9.0	<0.50	<0.50	<0.50	<0.50	<0.50	a
02/15/2006	<300	<20	2.8	<0.50	<0.50	<0.50	<0.50	<0.50	
5/19/2006	<300	<20	3.7	<0.50	<0.50	<0.50	<0.50	<0.50	a, c
8/25/2006	<300	<20	8.3	<0.50	<0.50	<0.50	<0.50	<0.50	
11/2/2006	<300	<20	11	<0.50	<0.50	<0.50	<0.50	<0.50	a
2/6/2007	<300	<20	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	
5/9/2007	<300	<20	3.2	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	<20	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	
11/14/2007	<300	<20	3.7	<0.50	<0.50	<0.50	<0.50	<0.50	
2/28/2008	<300	<10	0.86	<0.50	<0.50	<0.50	<0.50	<0.50	
5/23/2008	<300	<10	0.91	<0.50	<0.50	<0.50	<0.50	<0.50	
VW-3									
VW-4									
2/10/2003	<4,000	<2,000	2500	<0.50	<0.50	<0.50	--	--	
6/3/2003	<2,000	4,100	440	<10	<10	<10	--	--	
8/14/2003	<1,000	3,200	170	<5.0	<5.0	<5.0	<5.0	<5.0	
11/13/2003	<1,000	3,300	130	<5.0	<5.0	<5.0	--	--	
02/13/2004	<500	1,300	210	<2.5	<2.5	<2.5	<2.5	<2.5	
05/05/2004	<200	1,500	66	<1.0	1.3	<1.0	<1.0	<1.0	
08/30/2004	<1,000	5,400	220	<5.0	5.4	<5.0	<5.0	<5.0	
11/08/2004	<500	2,700	140	<2.5	<2.5	<2.5	<2.5	<2.5	
02/07/2005	<100	1,000	47	<0.50	0.89	<0.50	<0.50	<0.50	
05/09/2005	<100	1,200	37	<0.50	0.92	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data
Station #6002, 6235 Seminary Ave., Oakland, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
VW-4 Cont.									
08/11/2005	<100	2,000	15	<0.50	1.8	<0.50	<0.50	<0.50	b
12/02/2005	<200	2,400	28	<1.0	2.2	<1.0	<1.0	<1.0	
02/15/2006	<300	230	11	<0.50	<0.50	<0.50	<0.50	<0.50	
5/19/2006	<300	580	16	<0.50	<0.50	<0.50	<0.50	<0.50	a
8/25/2006	<300	1,900	17	<0.50	1.9	<0.50	<0.50	<0.50	
11/2/2006	<300	2,400	20	<0.50	2.3	<0.50	<0.50	<0.50	a
2/6/2007	<300	<20	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	
5/9/2007	<300	410	21	<0.50	<0.50	<0.50	<0.50	<0.50	
8/8/2007	<300	1,300	5.4	<0.50	1.2	<0.50	<0.50	<0.50	
11/14/2007	<300	1,700	6.4	<0.50	1.7	<0.50	<0.50	<0.50	
2/28/2008	<300	59	8.4	<0.50	<0.50	<0.50	<0.50	<0.50	
5/23/2008	<600	280	6.4	<1.0	<1.0	<1.0	<1.0	<1.0	

SYMBOLS AND ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available

< = Not detected at or above the laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

µg/L = Micrograms per Liter

FOOTNOTES:

a = Calibration verification for ethanol was within the method limits but outside the contract limits.

b = The initial analysis for TBA was within holding time but required dilution.

NOTES:

All volatile organic compounds analyzed using EPA Method 8260B.

The data within this table collected prior to August 2002 was provided to URS by RM and their previous consultants. URS has not verified the accuracy of this information.

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

Table 3. Historical Ground-Water Flow Direction and Gradient
Station #6002, 6235 Seminary Ave., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
3/15/1995	West-Southwest	0.08
5/30/1995	West-Southwest	0.08
9/1/1995	West-Southwest	0.09
11/13/1995	West-Southwest	0.08
2/23/1996	West-Southwest	0.08
5/10/1996	West-Southwest	0.08
8/9/1996	Southwest	0.08
11/8/1996	Southwest	0.06
3/21/1997	West-Southwest	0.05
5/27/1997	West-Southwest	0.07
8/5/1997	West	0.08
10/29/1997	West-Southwest	0.04
2/25/1998	West-Southwest	0.05
5/12/1998	West	0.07
7/28/1998	West	0.07
10/27/1998	West-Southwest	0.06
2/8/1999	West-Southwest	0.07
6/1/1999	West-Northwest	0.07
8/25/1999	West-Southwest	0.07
10/29/1999	West	0.07
2/16/2000	Southwest	0.05
6/23/2000	West	0.04
8/17/2000	West	0.09
11/10/2000	West-Southwest	0.08
2/12/2001	West-Southwest	0.07
4/13/2001	West	0.09
7/18/2001	West	0.08
10/1/2001	West-Southwest	0.08
1/14/2002	West-Southwest	0.07
4/3/2002	West-Southwest	0.08
8/8/2002	West-Southwest	0.09
11/27/2002	West-Southwest	0.08
2/10/2003	Southwest	0.06
6/3/2003	West	0.07
8/14/2003	West-Southwest	0.07
11/13/2003	West-Southwest	0.07
2/13/2004	Southwest	0.05
5/4/2004	Southwest	0.06
8/30/2004	Southwest	0.07
11/8/2004	Southwest	0.10
2/7/2005	Southwest	0.1
5/9/2005	Southwest	0.07

Table 3. Historical Ground-Water Flow Direction and Gradient
Station #6002, 6235 Seminary Ave., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
8/11/2005	West	0.07
12/2/2005	Southwest	0.10
2/15/2006	Southwest	0.07
4/28/2006	West	0.07
8/25/2006	West	0.07
11/2/2006	West	0.09
2/6/2007	West	0.05
5/9/2007	West	0.05
8/8/2007	West	0.05
11/14/2007	West	0.06
2/28/2008	West-Southwest	0.06
5/23/2008	West-Southwest	0.06

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

APPENDIX A

**STRATUS GROUND-WATER SAMPLING DATA PACKAGE
(INCLUDES FIELD DATA SHEET, LABORATORY ANALYTICAL REPORT WITH
CHAIN-OF-CUSTODY DOCUMENTATION, AND FIELD PROCEDURES)**



3330 Cameron Park Drive, Ste 550
Cameron Park, California 95682
(530) 676-6004 ~ Fax: (530) 676-6005

June 17, 2008

Mr. Rob Miller
Broadbent & Associates, Inc.
2000 Kirman Avenue
Reno, NV 89502

Re: Groundwater Sampling Data Package, ARCO Service Station No. 6002, located at 6235 Seminary Avenue, Oakland, California.

General Information

Data Submittal Prepared / Reviewed by: Becky Carroll / Jay Johnson
Phone Number: (530) 676-6000

On-Site Supplier Representative: Jerry Gonzales

Sampling Date: May 23, 2008

Arrival: 14:10 *Departure:* 15:45

Weather Conditions: Partly Cloudy

Unusual Field Conditions: None noted.

Scope of Work Performed: Quarterly monitoring and sampling.

Variations from Work Scope: None noted.

This submittal presents the tabulation of data collected in association with routine groundwater monitoring. The attachments include field sheets, non-hazardous waste data form, chain of custody documentation, certified analytical results, and field procedures for groundwater sampling documentation. The information is being provided to BP-ARCO's Scoping Supplier for use in preparing a report for regulatory submittal. This submittal is limited to presentation of collected data and does not include data interpretation or conclusions or recommendations. Any questions concerning this submittal should be addressed to the Preparer/Reviewer identified above.

Sincerely,

STRATUS ENVIRONMENTAL, INC.

Jay R. Johnson, P.G.
Project Manager



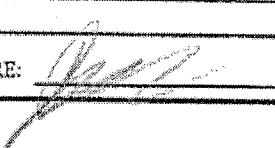
Attachments:

- Field Data Sheets
- Non-Hazardous Waste Data Form
- Chain of Custody Documentation
- Certified Analytical Results
- Field Procedures for Groundwater Sampling

cc: Mr. Paul Supple, BP/ARCO

BP ALAMEDA PORTFOLIO

WATER SAMPLE FIELD DATA SHEET

PROJECT #:	6002	PURGED BY:	<input checked="" type="checkbox"/>	WELL I.D.:	well 5			
CLIENT NAME:		SAMPLED BY:	<input checked="" type="checkbox"/>	SAMPLE I.D.:	well 5			
LOCATION:	Oakland - 6235 Seminary Ave.			QA SAMPLES:				
DATE PURGED	5/23/09	START (2400hr)	15:38	END (2400hr)	15:30			
DATE SAMPLED	5/23/09	SAMPLE TIME (2400hr)	15:30					
SAMPLE TYPE:	Groundwater <input checked="" type="checkbox"/>	Surface Water	<input type="checkbox"/>	Treatment Effluent	<input type="checkbox"/>	Other	<input type="checkbox"/>	
CASING DIAMETER:	2"	3"	4" <input checked="" type="checkbox"/>	5"	6"	8"	Other _____	
Casing Volume: (gallons per foot)	(0.17)	(0.38)	(0.67)	(1.02)	(1.50)	(2.60)	()	
DEPTH TO BOTTOM (feet) =	24.90	CASING VOLUME (gal) = 8.8						
DEPTH TO WATER (feet) =	11.68	CALCULATED PURGE (gal) = 26.5						
WATER COLUMN HEIGHT (feet) =	13.2	ACTUAL PURGE (gal) = <input checked="" type="checkbox"/> NO						
FIELD MEASUREMENTS								
DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)	
5/23/09	15:30	8	78.9	550	6.55	clear		
SAMPLE INFORMATION				SAMPLE TURBIDITY: clear				
SAMPLE DEPTH TO WATER:	11.68							
80% RECHARGE:	<input checked="" type="checkbox"/> YES	NO	ANALYSES: SWO					
ODOR:	NO	SAMPLE VESSEL / PRESERVATIVE: 6 Vol - HCl						
PURGING EQUIPMENT				SAMPLING EQUIPMENT				
Bladder Pump	Baifer (Teflon)	Bladder Pump	Baifer (Teflon)					
Centrifugal Pump	Baifer (PVC)	Centrifugal Pump	(PVC or <input checked="" type="checkbox"/> disposable)					
Submersible Pump	Baifer (Stainless Steel)	Submersible Pump	Baifer (Stainless Steel)					
Peristaltic Pump	Dedicated	Peristaltic Pump	Dedicated					
Other:		Other:						
Pump Depth:								
WELL INTEGRITY:	good	LOCK#:	MAT 18					
REMARKS:	DO 1.28							
SIGNATURE:				Page	of			

BP ALAMEDA PORTFOLIO

WATER SAMPLE FIELD DATA SHEET

PROJECT #:	6002	PURGED BY:	<i>✓</i>	WELL I.D.:	<i>11W-1</i>		
CLIENT NAME:		SAMPLED BY:	<i>✓</i>	SAMPLE I.D.:	<i>11W-1</i>		
LOCATION:	Oakland - 6235 Seminary Ave.			QA SAMPLES:			
DATE PURGED	<i>5/23/69</i>	START (2400hr)	<i>13:20</i>	END (2400hr)	<i>15:02</i>		
DATE SAMPLED	<i>5/23/69</i>	SAMPLE TIME (2400hr)	<i>15:21</i>				
SAMPLE TYPE:	Groundwater <input checked="" type="checkbox"/>	Surface Water		Treatment Effluent			
CASING DIAMETER:	2"	3"	<i>X</i> 4"	5"	6"	8"	Other
Casing Volume: (gallons per foot)	(0.17)	(0.38)	<i>X</i> (0.67)	(1.02)	(1.50)	(2.60)	()
DEPTH TO BOTTOM (feet) =	<i>13.12</i>			CASING VOLUME (gal) =	<i>3.8</i>		
DEPTH TO WATER (feet) =	<i>7.40</i>			CALCULATED PURGE (gal) =	<i>11.4</i>		
WATER COLUMN HEIGHT (feet) =	<i>5.7</i>			ACTUAL PURGE (gal) =	<i>0 NO</i>		
FIELD MEASUREMENTS							
DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<i>5/23/69</i>	<i>15:21</i>		<i>77.8</i>	<i>491.8</i>	<i>6.72</i>	<i>clear</i>	
SAMPLE INFORMATION				SAMPLE TURBIDITY: <i>clear</i>			
SAMPLE DEPTH TO WATER:	<i>7.40</i>						
80% RECHARGE:	<input checked="" type="checkbox"/> YES	NO	ANALYSES:	<i>SWO</i>			
ODOR:	<i>NO</i>			SAMPLE VESSEL / PRESERVATIVE: <i>6. VOA-HCl</i>			
PURGING EQUIPMENT				SAMPLING EQUIPMENT			
<input type="checkbox"/> Bladder Pump	<input type="checkbox"/> Bailer (Teflon)	<input type="checkbox"/> Bladder Pump	<input checked="" type="checkbox"/> Bailer (Teflon)				
<input type="checkbox"/> Centrifugal Pump	<input type="checkbox"/> Bailer (PVC)	<input type="checkbox"/> Centrifugal Pump	<input checked="" type="checkbox"/> Bailer (PVC or <input checked="" type="checkbox"/> disposable)				
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)	<input type="checkbox"/> Submersible Pump	<input checked="" type="checkbox"/> Bailer (Stainless Steel)				
<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated	<input type="checkbox"/> Peristaltic Pump	<input checked="" type="checkbox"/> Dedicated				
Other:		Other:					
Pump Depth:							
WELL INTEGRITY:	<i>good</i>			LOCK#:	<i>M274</i>		
REMARKS:	<i>D.O 1.05</i>						
SIGNATURE:	<i>[Signature]</i>			Page			

NO. 666731

NON-HAZARDOUS WASTE DATA FORM

SITE: 6002

EPA
I.D.
NO.

NOT REQUIRED

NAME: BO WEST COAST PRODUCTS LLC 4800ADDRESS: P.O. BOX 50249

RANCHO SANTA MARGARITA

CITY, STATE, ZIP: CA 92689PROFILE
NO.PHONE NO. (714) 220-5000

TO BE COMPLETED BY GENERATOR

CONTAINERS: NO. 1VOLUME 1000WEIGHT 1000TYPE: TANK TRUCK DUMP TRUCK DRUMS CARTONS OTHERWASTE DESCRIPTION/100% HAZARDOUS WASTE
COMPONENTS OF WASTEGENERATING PROCESS/100% RECYCLING/DETON WATER
COMPONENTS OF WASTE1. WATER 99-100%

5.

2. TDM 1%

6.

3.

7.

4.

8.

PROPERTIES: SOLID LIQUID SLUDGE SLURRY OTHERHANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PROTECTIVE CLOTHINGTHE GENERATOR CERTIFIES THAT THE
WASTE AS DESCRIBED IS 100%
NON-HAZARDOUS.

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE

Transporter #1

Transporter #2

EPA
I.D.
NO.NAME: STRATUS ENVIRONMENTALADDRESS: 3330 CAMERON PARK DRSERVICE ORDER NO. 1000CITY, STATE, ZIP: CAMERON PARK, CA 91332PICK UP DATE 10/10/94PHONE NO. 510-676-2821

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE

TRUCK, UNIT, I.D. NO. 1000EPA
I.D.
NO.

DISPOSAL METHOD

 LANDFILL OTHERNAME: INSTRAT, INCADDRESS: 1105 AIRPORT RD #CCITY, STATE, ZIP: 10 VISTA, CA 91151PHONE NO. 520-752-1829

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE

GEM	OLD/NEW	L	A	TONS
TRANS		S	B	
CQ	RT/CD	WADP	NONE	DISCREPANCY



A BP affiliated company

Chain of Custody Record

Project Name: BP 6002

BP BU/AR Region/Envos Segment: BP > Americas > West > Refaff > CA > Alameda -6002

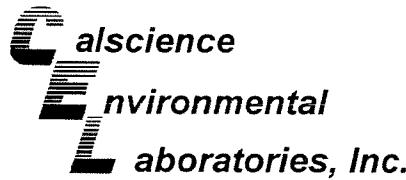
State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

Page 1 of 1

On-site Time: 1910	Temp: 70
Off-site Time: 1545	Temp: 72
Sky Conditions: Partly cloudy	
Meteorological Events: No events	
Wind Speed: 5	Direction: NNE

Lab Name: Calscience		BP/AR Facility No.: 6002		Consultant/Contractor: Stratus Environmental, Inc												
Address: 7440 Lincoln Way Garden Grove, CA 92841		BP/AR Facility Address: 6235 Seminary Avenue, Oakland		Address: 3330 Cameron Park Drive, Suite 550 Cameron Park, CA 95682												
Lab PM: Linda Scharpenberg		Site Lat/Long:		Consultant/Contractor Project No.: E6002-04												
Tele/Fax: 714-895-5494 714-895-7501(fax)		California Global ID #: T0600100105		Consultant/Contractor PM: Jay Johnson												
BP/AR PM Contact: Paul Supple		Envos Project No.: G0C8K-0021		Tele/Fax: (530) 676-6000 / (530) 676-6905												
Address: 2010 Crow Canyon Place, Suite 150 San Ramon, CA		Provision or RCOP (circle one) Provision		Report Type & QC Level: Level 1 with EDF												
Tele/Fax: 925-275-3506		Phase/WBS: 04-Monitoring		E-mail EDD To: shayes@stratusinc.net												
Lab Bottle Order No:		Sub Phase/Task: 03-Analytical		Invoice to: Atlantic Richfield Co.												
Item No. Sample Description		Matrix		Preservative		Requested Analysis		Sample Point Lat/Lng and Comments								
		Time	Date	No. of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	BTX/Oxy* by 8260	T 2 DCA	EDB	Ethanol by 8260	GROB 8012m		
1	MW-5	1530	5/23/06	X				X		X	X	X	X			*Oxy = MTBD, TAME, ETBE, DIPE, TBA
2	VW-1	1521	/	X				X		X	X	X	X			
3	VW-4	1510	/	X				X		X	X	X	X			
4	FB 6002	200	/	X				X							HOLD	
5																
6																
7																
8																
9																
10																
Sampler's Name: Tom Gonzalez					Relinquished By / Affiliation			Date	Accepted By / Affiliation		Date	Time		Time		
Sampler's Company: Douglas Env					<i>Tom Gonzalez</i>											
Shipment Date:																
Shipment Method:																
Shipment Tracking No:																
Special Instructions:					Please cc results to: rmiller@broadbentinc.com											
Custody Seals In Place: Yes / No			Temp Blank: Yes / No			Cooler Temp on Receipt: °F/C			Trip Blank: Yes / No			MS/MSD Sample Submitted: Yes / No				



June 10, 2008

Jay Johnson
Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Subject: **Calscience Work Order No.: 08-05-2357**
Client Reference: BP 6002

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/28/2008 and analyzed in accordance with the attached chain-of-custody.

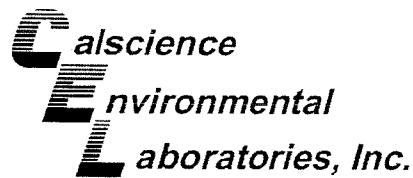
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Philip Sanelle for".

Calscience Environmental
Laboratories, Inc.
Linda Scharpenberg
Project Manager



CASE NARRATIVE – 08-05-2357

Data Qualifiers - EPA 8260:

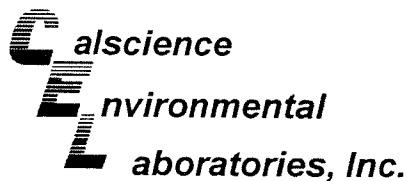
080603S02:

The RPD for toluene and ethanol were outside criteria in the MS/MSD. The RPD was within criteria in the LCS/LCSD. The MS/MSD has been flagged "4" within the report.

"4" = BA, AY

BA – Relative Percent Difference out of Control

AY = Matrix Interference Suspected



Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 05/28/08
Work Order No: 08-05-2357
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

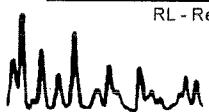
Project: BP 6002

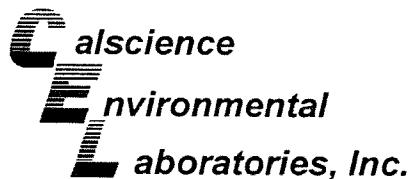
Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-258	N/A	Aqueous	GC/MS BB	06/03/08	06/04/08 03:43	080603L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	124	73-157			Dibromofluoromethane	114	82-142		
Toluene-d8	97	82-112			1,4-Bromofluorobenzene	83	75-105		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 05/28/08
Work Order No: 08-05-2357
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project BP 6002

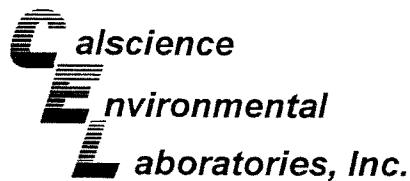
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-05-2076-4	Aqueous	GC 4	06/03/08	06/03/08	080603S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	90	93	38-134	4	0-25	

RPD - Relative Percent Difference , CL - Control Limit



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Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

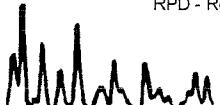
Date Received: 05/28/08
Work Order No: 08-05-2357
Preparation: EPA 5030B
Method: EPA 8260B

Project BP 6002

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-06-0103-4	Aqueous	GC/MS BB	06/03/08	06/04/08	080603S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	106	107	86-122	1	0-8	
Carbon Tetrachloride	109	108	78-138	1	0-9	
Chlorobenzene	101	104	90-120	3	0-9	
1,2-Dibromoethane	98	106	70-130	8	0-30	
1,2-Dichlorobenzene	101	100	89-119	1	0-10	
1,1-Dichloroethene	110	96	52-142	13	0-23	
Ethylbenzene	108	107	70-130	0	0-30	
Toluene	103	91	85-127	13	0-12	4
Trichloroethene	97	95	78-126	2	0-10	
Vinyl Chloride	95	87	56-140	8	0-21	
Methyl-t-Butyl Ether (MTBE)	109	95	64-136	14	0-28	
Tert-Butyl Alcohol (TBA)	105	109	27-183	4	0-60	
Diisopropyl Ether (DIPE)	112	96	78-126	15	0-16	
Ethyl-t-Butyl Ether (ETBE)	109	94	67-133	14	0-21	
Tert-Amyl-Methyl Ether (TAME)	103	100	63-141	2	0-21	
Ethanol	45	90	11-167	67	0-64	4

RPD - Relative Percent Difference , CL - Control Limit



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**E nvironmental
L aboratories, Inc.**
Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

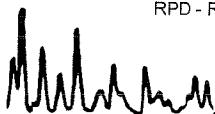
Date Received: N/A
Work Order No: 08-05-2357
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: BP 6002

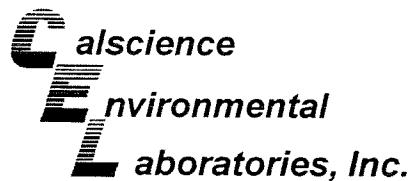
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-155	Aqueous	GC 4	06/03/08	06/03/08	080603B01

Parameter	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	100	98	78-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



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Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

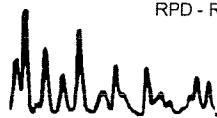
Date Received: N/A
Work Order No: 08-05-2357
Preparation: EPA 5030B
Method: EPA 8260B

Project: BP 6002

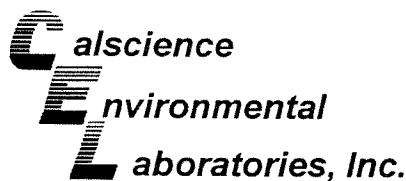
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-258	Aqueous	GC/MS BB	06/03/08	06/04/08	080603L02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	100	100	87-117	0	0-7	
Carbon Tetrachloride	107	108	78-132	0	0-8	
Chlorobenzene	98	99	88-118	0	0-8	
1,2-Dibromoethane	102	102	80-120	0	0-20	
1,2-Dichlorobenzene	98	102	88-118	3	0-8	
1,1-Dichloroethene	105	104	71-131	1	0-14	
Ethylbenzene	102	105	80-120	3	0-20	
Toluene	100	97	85-127	3	0-7	
Trichloroethene	108	110	85-121	2	0-11	
Vinyl Chloride	95	94	64-136	0	0-10	
Methyl-t-Butyl Ether (MTBE)	110	103	67-133	6	0-16	
Tert-Butyl Alcohol (TBA)	95	107	34-154	11	0-19	
Diisopropyl Ether (DIPE)	111	105	80-122	6	0-8	
Ethyl-t-Butyl Ether (ETBE)	109	105	73-127	3	0-11	
Tert-Amyl-Methyl Ether (TAME)	103	98	69-135	5	0-12	
Ethanol	82	83	34-124	2	0-44	

RPD - Relative Percent Difference , CL - Control Limit



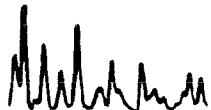
7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501

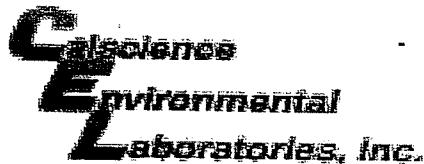


Glossary of Terms and Qualifiers

Work Order Number: 08-05-2357

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDS associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.





WORK ORDER #: 08 - 0 5 - 2 3 5 7

Cooler 1 of 1

SAMPLE RECEIPT FORMCLIENT: StratusDATE: 5/28/08**TEMPERATURE – SAMPLES RECEIVED BY:****CALSCIENCE COURIER:**

- Chilled, cooler with temperature blank provided.
- Chilled, cooler without temperature blank.
- Chilled and placed in cooler with wet ice.
- Ambient and placed in cooler with wet ice.
- Ambient temperature.

- °C Temperature blank.

LABORATORY (Other than Calscience Courier):

- 3.7 °C Temperature blank.
- °C IR thermometer.
- Ambient temperature.

Initial: JF**CUSTODY SEAL INTACT:**

Sample(s): _____

Cooler: ✓

No (Not Intact) : _____

Not Present: _____

Initial: JF**SAMPLE CONDITION:**

- | | Yes | No | N/A |
|---|----------|-------|----------|
| Chain-Of-Custody document(s) received with samples..... | <u>✓</u> | | |
| Sampler's name indicated on COC..... | <u>✓</u> | | |
| Sample container label(s) consistent with custody papers..... | <u>✓</u> | | |
| Sample container(s) intact and good condition..... | <u>✓</u> | | |
| Correct containers and volume for analyses requested..... | <u>✓</u> | | |
| Proper preservation noted on sample label(s)..... | <u>✓</u> | | |
| VOA vial(s) free of headspace..... | <u>✓</u> | | |
| Tedlar bag(s) free of condensation..... | | | <u>✓</u> |

Initial: JF**COMMENTS:**

ATTACHMENT

FIELD PROCEDURES FOR GROUNDWATER SAMPLING

The sampling procedures for groundwater monitoring events are contained in this appendix.

Equipment Calibration

Standard groundwater sampling equipment – pH/Conductivity/Temperature meter, and dissolved oxygen (DO) meters are calibrated prior to all field work. All calibration is conducted in accordance with equipment manufacturer's recommended procedure and buffer solutions. MSDS for all buffer solutions are maintained in Stratus vehicles. Calibration is completed everyday prior to field work and also once a week. The pH probe is calibrated for a pH of 7.0 daily and for 4.0, 7.0 and 10.0 weekly. The conductivity probe is calibrated for 1413 μs daily and 1413 μs and 447 μs weekly. The temperature probe is calibrated weekly with a NIST-traceable thermometer. The DO probe is calibrated for 100% oxygen daily and 0% and 100% oxygen weekly. All calibration logs are maintained in the Stratus office.

Groundwater and Liquid-Phase Petroleum Hydrocarbon Depth Assessment

Prior to measuring the depth to liquid in the well, the well caps are removed and the liquid level allowed to stabilize. A water/hydrocarbon interface probe is used to assess the liquid-phase petroleum hydrocarbon (LPH) thickness, if present, and a water level indicator is used to measure the groundwater depth in monitoring wells that do not contain LPH. Depth to groundwater or LPH is measured from a datum point at the top of each monitoring well casing. The datum point is typically a notch cut in the north side of the casing edge. If a water level indicator is used, the tip is subjectively analyzed for hydrocarbon sheen.

Subjective Analysis of Groundwater

Prior to purging, a water sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

Monitoring Well Sampling

In many cases, determining whether to purge or not to purge wells prior to sample collection is made in the field and is often based on depth to water relative to the screen interval of the well. Site-specific field data sheets present details associated with the purge method and equipment used.

Monitoring wells, when purged, use a pump or bailer until pH, temperature, and conductivity of the purge water has stabilized and a minimum of three well volumes of water has been removed. Field measuring equipment is calibrated and maintained according to the manufacturer's instructions. If three well volumes cannot be removed in one half hour's time the well is allowed to recharge to 80% of original level. After recharging, a groundwater sample is then collected from each of the wells using disposable bailers.

A Teflon bailer, electric submersible or bladder pump will be the only equipment used for well sampling. When samples for volatile organic analysis are being collected, the pump flow will be regulated at approximately 100 milliliters per minute to minimize pump effluent turbulence and aeration. Glass bottles of at least 40-milliliters volume and fitted with Teflon-lined septa will be used in sampling for volatile organics. These bottles will be filled completely to prevent air accumulation in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum will be placed over the positive meniscus to eliminate air. After the bottle is capped, it is inverted and tapped to verify that it contains no air bubbles. The sample containers for other parameters will be filled, filtered as required, and capped. Glass and plastic bottles used by Stratus to collect groundwater samples are supplied by the laboratory.

Groundwater Sample Labeling and Preservation

Samples are collected in appropriate containers supplied by the laboratory. All required chemical preservation is added to the bottles prior to delivery to Stratus. Sample label information includes a unique sample identification number, job identification number, date, and time. After labeling, all groundwater samples are placed in a Ziploc® type bag and placed in an ice chest cooled to approximately 4° Celsius. Upon arriving at Stratus' office the samples are transferred to a locked refrigerator cooled to approximately 4° Celsius. Chemical preservation is controlled by the required analysis and is noted on the chain-of-custody form. Trip and temperature blanks supplied by the laboratory accompany the groundwater sample containers and groundwater samples.

Sample Identification and Chain-of-Custody Procedures

Sample identification and chain-of-custody procedures document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis has a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, is recorded in the field records. The samples are analyzed by a California-certified laboratory.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and

contain adequate volumes for analysis. These conditions are noted on a Laboratory Sample Receipt Checklist that becomes part of the laboratory report upon request.

If these conditions are met, each sample is assigned a unique log number for identification throughout analysis and reporting. The log number is recorded on the chain-of-custody form and in the legally-required log book maintained by the laboratory. The sample description, date received, client's name, and other relevant information is also recorded.

Equipment Cleaning

All reusable sampling equipments are cleaned using phosphate-free detergents and rinsed with de-ionized water.

APPENDIX B

GEOTRACKER UPLOAD CONFIRMATION

Electronic Submittal Information

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

UPLOADING A GEO_WELL FILE

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Title: 2Q08 GEO_WELL 6002
Facility Global ID: T0600100105
Facility Name: ARCO #6002
Submittal Date/Time: 7/3/2008 9:29:11 AM
Confirmation Number: **8939595103**

[Back to Main Menu](#)

Logged in as BROADBENT-C
(CONTRACTOR)

CONTACT SITE [ADMINISTRATOR](#).

Electronic Submittal Information

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

Your EDF file has been successfully uploaded!

Confirmation Number: 1667697310

Date/Time of Submittal: 7/1/2008 9:06:54 AM

Facility Global ID: T0600100105

Facility Name: ARCO #6002

Submittal Title: 2Q08 GW Monitoring

Submittal Type: GW Monitoring Report

Click [here](#) to view the detections report for this upload.

ARCO #6002 6235 SEMINARY OAKLAND, CA 94605	Regional Board - Case #: <u>01-0113</u> SAN FRANCISCO BAY RWQCB (REGION 2) Local Agency (lead agency) - Case #: <u>RO0000163</u> ALAMEDA COUNTY LOP - (PK)
---	---

CONF # 1667697310	TITLE 2Q08 GW Monitoring	QUARTER Q2 2008
SUBMITTED BY Broadbent & Associates, Inc.	SUBMIT DATE 7/1/2008	STATUS PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	3
# FIELD POINTS WITH DETECTIONS	3
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	2
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	M8015,SW8260B
TESTED FOR REQUIRED ANALYTES?	Y
LAB NOTE DATA QUALIFIERS	Y

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	N
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a

SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS > REPDL</u>
QCTB SAMPLES	N	0
QCBE SAMPLES	N	0
QCAB SAMPLES	N	0

Logged in as BROADBENT-C (CONTRACTOR)

CONTACT SITE [ADMINISTRATOR](#).