



Atlantic Richfield Company  
(a BP affiliated company)

P.O. Box 1257  
San Ramon, CA 94583  
Phone: (925) 275-3801  
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15 October 2008

Re: Third 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 Manger

**RECEIVED**

2:15 pm, Oct 23, 2008

Alameda County  
Environmental Health



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

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*

15 October 2008

Project No. 06-08-634

15 October 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: Third 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 *Third 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 Third 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,

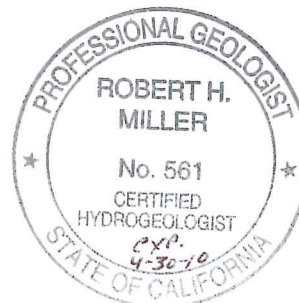
BROADBENT & ASSOCIATES, INC.



Thomas A. Venus, P.E.  
Senior Engineer



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

### WORK PERFORMED THIS QUARTER (Third Quarter 2008):

1. Prepared and submitted the Second Quarter 2008 Ground-Water Monitoring Report.
2. Conducted ground-water monitoring/sampling for Third Quarter 2008. Work performed by Stratus Environmental, Inc. (Stratus) on 21 August 2008.

### WORK PROPOSED FOR NEXT QUARTER (Fourth Quarter 2008):

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

### QUARTERLY RESULTS SUMMARY:

Current phase of project:	<b>Ground-Water Monitoring/Sampling</b>
Frequency of ground-water monitoring:	<b>Quarterly: Wells MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, VW-1, VW-3, VW-4</b>
Frequency of ground-water sampling:	<b>Quarterly: Wells MW-5, VW-1, VW-4</b> <b>Annually (3Q): Wells MW-3, MW-4, MW-6, MW-7, MW-8</b>
Is free product (FP) present on-site:	<b>No</b>
Bulk Soil removed to Date:	<b>Approximately 370 cubic yards of TPH-impacted soil</b>
Current remediation techniques:	<b>NA</b>
Depth to ground water (below TOC):	<b>7.17 ft (MW-6) to 12.42 ft (MW-5)</b>
General ground-water flow direction:	<b>West-Southwest</b>
Approximate hydraulic gradient:	<b>0.07 ft/ft</b>

### DISCUSSION:

Third quarter 2008 ground-water monitoring and sampling was conducted at Former Atlantic Richfield Company Service Station #6002 on 21 August 2008 by Stratus personnel. Water levels were gauged in eight of the nine wells associated with Station #6002: Well MW-7 was dry; Access to well MW-8 was denied by the property owner and therefore the water level was not gauged. No other significant irregularities were noted during water level gauging. Depth to water measurements ranged from 7.17 ft at well MW-6 to 12.42 ft. at well MW-5. Resulting ground-water surface elevations ranged from 250.77 ft above mean sea level (msl) in up-gradient well MW-6 to 236.25 ft above msl at well MW-4. Water level elevations were within the historic minimum and maximum ranges, as summarized in Table 1. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the west-southwest at approximately 0.07 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.

Generally consistent with the current ground-water sampling schedule, water samples were collected from wells MW-3 through MW-6, VW-1, and VW-4. As well MW-7 was dry and access to well MW-8 was denied by the property owner, samples were not collected from these wells. No other 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 six wells sampled this quarter at concentrations of 4,700 micrograms per liter ( $\mu\text{g/L}$ ) and 74  $\mu\text{g/L}$  in wells MW-5 and VW-4, respectively. Toluene, Ethylbenzene, and Total Xylenes were detected above the laboratory reporting limits in well MW-5 at concentrations of 0.6  $\mu\text{g/L}$ , 3.6  $\mu\text{g/L}$ , and 1.4  $\mu\text{g/L}$ , respectively. TBA was detected above the laboratory reporting limit in two of the six wells sampled at concentrations of 40  $\mu\text{g/L}$  and 720  $\mu\text{g/L}$  in wells MW-5 and VW-4, respectively. MTBE was detected above the laboratory reporting limit in four of the six wells sampled at concentrations up to 8.7  $\mu\text{g/L}$  in MW-5. The remaining fuel additives and oxygenates were not detected above their laboratory reporting limits in the six 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.

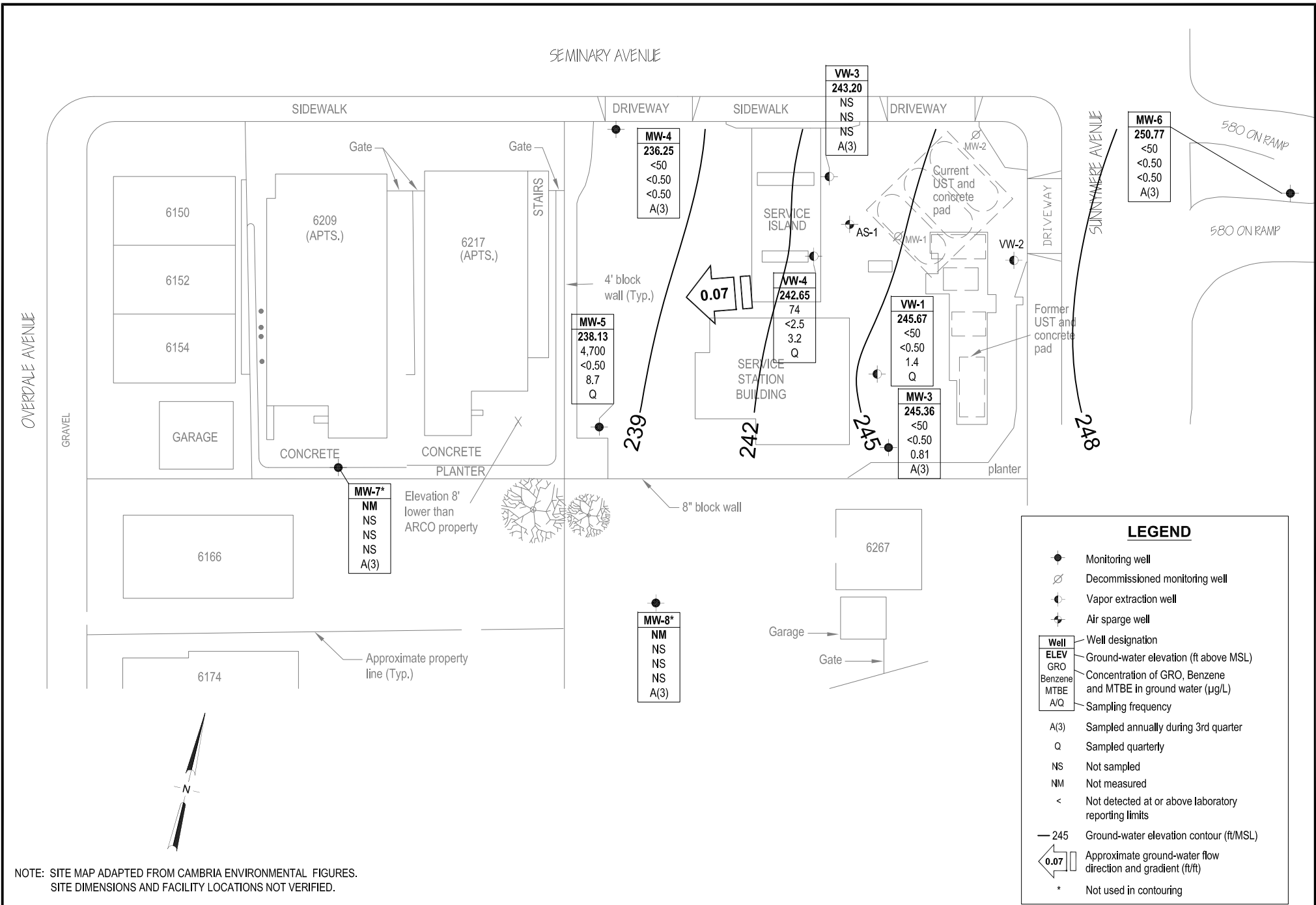
## **ATTACHMENTS:**

- Drawing 1. Ground-Water Elevation Contours and Analytical Summary Map, 21 August 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

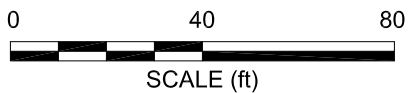
Table 3. Historical Ground-Water Flow Direction and Gradient, Station #6002, 6235 Seminary Avenue, Oakland, California

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



NOTE: SITE MAP ADAPTED FROM CAMBRIA ENVIRONMENTAL FIGURES.  
 SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



**BROADBENT & ASSOCIATES, INC.**  
 ENGINEERING, WATER RESOURCES & ENVIRONMENTAL  
 1324 Mangrove Ave. Suite 212, Chico, California 95926  
 Project No.: 06-08-634 Date: 9/11/08

Former ARCO Service Station #6002  
 6235 Seminary Avenue  
 Oakland, California

Ground-Water Elevation Contours  
 and Analytical Summary Map  
 21 August 2008

Drawing

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		
<b>AS-1</b>																
6/29/1995	--		--	20.0	22.0	9.20	--	--	<50	1.6	<0.5	0.9	0.9	--	--	--
<b>MW-1</b>																
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	--	--	--	--	--	--	--	--	--	--	--
<b>MW-2</b>																
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	--	--	--	--	--	--	--	--	--	--	--
<b>MW-3</b>																
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		
<b>MW-3 Cont.</b>																
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		
<b>MW-3 Cont.</b>																
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	--	--	--	--	--	--	--	--
<b>8/21/2008</b>	<b>NP</b>		<b>253.88</b>	<b>5.0</b>	<b>24.5</b>	<b>8.52</b>	<b>--</b>	<b>245.36</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>0.81</b>	<b>1.17</b>	<b>7.17</b>
<b>MW-4</b>																
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	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	<1	<3	1.5	5.60

**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		
<b>MW-4 Cont.</b>																
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	--
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	NP		242.91	4.5	24.5	8.17	--	234.74	<50	<0.50	<0.50	<0.50	<0.50	<2.50	--	--
4/13/2001	--	f	242.91	4.5	24.5	--	--	--	<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	--	f	242.91	4.5	24.5	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
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	--	--
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	--	--	--	--	--	--	--	--

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		
<b>MW-4 Cont.</b>																
2/6/2007	--		248.62	4.5	24.5	10.52	--	238.10	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--
<b>8/21/2008</b>	<b>NP</b>		<b>248.62</b>	<b>4.5</b>	<b>24.5</b>	<b>12.37</b>	<b>--</b>	<b>236.25</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>1.39</b>	<b>7.24</b>
<b>MW-5</b>																
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	--

**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		
<b>MW-5 Cont.</b>																
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	--
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	f	244.82	5.0	24.5	--	--	--	2,700	24	5.1	92	8.5	130	--	--
4/3/2002	NP		244.82	5.0	24.5	12.50	--	232.32	2,400	21	<5.0	91	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

**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		
<b>MW-5 Cont.</b>																
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
<b>8/21/2008</b>	<b>NP</b>		<b>250.55</b>	<b>5.0</b>	<b>24.5</b>	<b>12.42</b>	<b>--</b>	<b>238.13</b>	<b>4,700</b>	<b>&lt;0.50</b>	<b>0.60</b>	<b>3.6</b>	<b>1.4</b>	<b>8.7</b>	<b>1.24</b>	<b>6.78</b>
<b>MW-6</b>																
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	--	f	--	17.0	31.5	--	--	--	--	--	--	--	--	--	--	--
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
4/13/2001	--		252.20	17.0	31.5	10.52	--	241.68	--	--	--	--	--	--	--	--

**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		
<b>MW-6 Cont.</b>																
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	--	--
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	--	--	--	--	--	--	--	--
<b>8/21/2008</b>	<b>P</b>		<b>257.94</b>	<b>17.0</b>	<b>31.5</b>	<b>7.17</b>	--	<b>250.77</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>1.38</b>	<b>7.27</b>
<b>MW-7</b>																

**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		
<b>MW-7 Cont.</b>																
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	--	--
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	--	--	--	--	--	--	--	--



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		
<b>MW-7 Cont.</b>																
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	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--
<b>8/21/2008</b>	--	<b>g</b>	<b>241.64</b>	<b>8.5</b>	<b>13.5</b>	--	--	--	--	--	--	--	--	--	--	--
<b>MW-8</b>																
8/9/1996	--		240.37	5.5	14.0	9.41	--	230.96	<50	<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	<3	--	--
3/21/1997	--		240.37	5.5	14.0	8.55	--	231.82	<50	<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	<3	--	--
10/29/1997	--		240.37	5.5	14.0	9.35	--	231.02	<50	<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	<3	--	--
5/12/1998	--		240.37	5.5	14.0	8.61	--	231.76	<50	<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	4	--	--
10/27/1998	--		240.37	5.5	14.0	9.30	--	231.07	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--

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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		
<b>MW-8 Cont.</b>																
2/8/1999	--		240.37	5.5	14.0	5.56	--	234.81	<50	<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	--	--	--	--	--	--	--	--	--	--	--
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	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	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	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	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	--	--	--	--	--	--	--	--

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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		
<b>MW-8 Cont.</b>																
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	--	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--
<b>8/21/2008</b>	<b>--</b>	<b>e</b>	<b>246.09</b>	<b>5.5</b>	<b>14.0</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>VW-1</b>																
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	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	--

**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		
<b>VW-1 Cont.</b>																
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	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	0.81	14	--	--
1/14/2002	P		--	6.0	14.0	5.04	--	--	110	<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	--	--
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
<b>8/21/2008</b>	<b>NP</b>		<b>253.19</b>	<b>6.0</b>	<b>14.0</b>	<b>7.52</b>	<b>--</b>	<b>245.67</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>1.4</b>	<b>1.09</b>	<b>6.99</b>

**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		
<b>VW-1</b>																
<b>VW-2</b>																
2/23/1996	--	i	--	--	--	6.92	--	--	--	--	--	--	--	--	--	--
8/8/2002	--	i	--	--	--	10.51	--	--	--	--	--	--	--	--	--	--
<b>VW-3</b>																
8/8/2002	--		--	5.5	14.5	8.85	--	--	<50	<0.50	<0.50	<0.50	<0.50	2.5	0.7	6.1
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	--	--	--	--	--	--	--	--
<b>8/21/2008</b>	--		<b>252.26</b>	<b>5.5</b>	<b>14.5</b>	<b>9.06</b>	--	<b>243.20</b>	--	--	--	--	--	--	--	--

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																
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	--	--
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	NP		--	5.5	14.5	9.74	--	--	1,360	<2.00	2.26	<2.00	2.25	4,900	1.5	--
6/23/2000	--	f	--	5.5	14.5	--	--	--	1,260	<2.00	<2.00	<2.00	2.73	2,720	--	--
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

**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		
<b>VW-4 Cont.</b>																
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
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
<b>8/21/2008</b>	<b>NP</b>		<b>252.69</b>	<b>5.5</b>	<b>14.5</b>	<b>10.04</b>	<b>--</b>	<b>242.65</b>	<b>74</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>3.2</b>	<b>1.29</b>	<b>6.89</b>

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	
<b>MW-3</b>									
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	
<b>8/21/2008</b>	<b>&lt;300</b>	<b>&lt;10</b>	<b>0.81</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-4</b>									
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	
<b>8/21/2008</b>	<b>&lt;300</b>	<b>&lt;10</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-5</b>									
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	

**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	
<b>MW-5 Cont.</b>									
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	
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	
<b>8/21/2008</b>	<b>&lt;300</b>	<b>40</b>	<b>8.7</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-6</b>									
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	
<b>8/21/2008</b>	<b>&lt;300</b>	<b>&lt;10</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-7</b>									
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	
<b>MW-8</b>									
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	
<b>VW-1</b>									

**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	
<b>VW-1 Cont.</b>									
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	--	--	
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	
<b>8/21/2008</b>	<b>&lt;300</b>	<b>&lt;10</b>	<b>1.4</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>VW-3</b>									
<b>VW-4</b>									
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	

**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	
<b>VW-4 Cont.</b>									
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	
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	
<b>8/21/2008</b>	<b>&lt;1,500</b>	<b>720</b>	<b>3.2</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	

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**

<b>Date Sampled</b>	<b>Approximate Flow Direction</b>	<b>Approximate Hydraulic Gradient</b>
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**

<b>Date Sampled</b>	<b>Approximate Flow Direction</b>	<b>Approximate Hydraulic Gradient</b>
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
<b>8/21/2008</b>	<b>West-Southwest</b>	<b>0.07</b>

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-CUSTORDY DOCUMENTATION, AND FIELD PROCEDURES)**





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

September 5, 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:* Roberto Heimlich

*Sampling Date:* August 21, 2008

*Arrival:* 10:00 *Departure:* 12:35

*Weather Conditions:* Clear

*Unusual Field Conditions:* None noted.

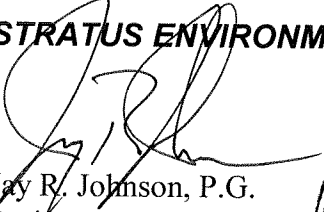
*Scope of Work Performed:* Quarterly monitoring and sampling.

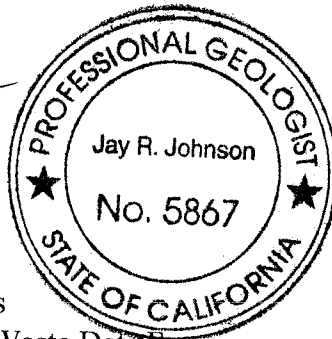
*Variations from Work Scope:* Well MW-7 was dry. Access to well MW-8 was denied by property owner and therefore was not gauged or sampled this event.

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**  
HYDROLOGIC DATA SHEET

AT: 10

Gauge Date: 8/21/08

Project Name: 6235 Seminary Ave., Oakland

Field Technician: ROBERTO

Project Number: 6002

TOC = Top of Well Casing Elevation  
TOS = Depth to Top of Screen  
DTW = Depth to Groundwater Below TOC  
DTB = Depth to Bottom of Well Casing Below TOC

DIA = Well Casing Diameter  
ELEV = Groundwater Elevation  
DUP = Duplicate

WELL OR LOCATION	TIME	MEASUREMENT						PURGE & SAMPLE	SHEEN CONFIRMATION (w/batter)	COMMENTS
		TOC	TOS	DTW	DTB	DIA	ELEV			
MW-3	10:23			8.52	24.30	4"				
MW-4	10:17			12.37	24.05	4"				
MW-5	10:12			12.42	24.90	4"				
MW-6	10:06			7:17	32.90	2"				
MW-7	10:00			DRY	13.18	2"				
MW-8	DID NOT SAMPLE [REDACTED] NO ACCESS TO WELL!									
VW-1	10:29			7.52	13.12	4"				
VW-3	10:39			9.06	14.10	4"	NO			
VW-4	10:35			10.04	14.21	4"				
<p>FOR MW-8 I SPOKE WITH A GUY FROM THE HOUSE ASKING FOR PERMISSION TO WALK TO THE BACK IN ORDER TO GET TO THE WELL. INDIVIDUAL DENIED ME ACCESS TO BACKYARD &amp; CLOSED THE GATE AFTER TALKING TO ME.</p>										

FW: Arturo Heimlich

Calibration Date

pH/Conductivity/temperature Meter - YSI Model 63

pH 8/21/08

DO Meter - YSI 55 Series (DO is always measured before purge)

Conductivity 8/21/08

Please refer to groundwater sampling field procedures

DO 8/21/08

**BP ALAMEDA PORTFOLIO**  
**WATER SAMPLE FIELD DATA SHEET**

PROJECT #: 6002 PURGED BY: RH WELL I.D.: MW-3  
 CLIENT NAME: \_\_\_\_\_ SAMPLED BY: RH SAMPLE I.D.: MW-3  
 LOCATION: Oakland - 6235 Seminary Ave. QA SAMPLES: \_\_\_\_\_

DATE PURGED 8/21/08 NP START (2400hr) 10:46 END (2400hr) 10:54  
 DATE SAMPLED 8/21/08 NP SAMPLE TIME (2400hr) 10:52  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2" \_\_\_\_\_ 3" \_\_\_\_\_ 4" X 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) = 24.30 CASING VOLUME (gal) = NP  
 DEPTH TO WATER (feet) = 8.52 CALCULATED PURGE (gal) = NP  
 WATER COLUMN HEIGHT (feet) = \_\_\_\_\_ ACTUAL PURGE (gal) = \_\_\_\_\_

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>8/21/08</u>	<u>10:48</u>	<u>NP</u>	<u>21.1</u>	<u>588</u>	<u>7.17</u>	<u>clear</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

SAMPLE DEPTH TO WATER: 8.52 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE:  YES  NO ANALYSES: SWD  
 ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAS/HCL

**PURGING EQUIPMENT**  
 \_\_\_\_\_ Bladder Pump \_\_\_\_\_ Bailer (Teflon)  
 \_\_\_\_\_ Centrifugal Pump NA \_\_\_\_\_ Bailer (PVC)  
 \_\_\_\_\_ Submersible Pump \_\_\_\_\_ Bailer (Stainless Steel)  
 \_\_\_\_\_ Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_  
 Pump Depth: NA

**SAMPLING EQUIPMENT**  
 \_\_\_\_\_ Bladder Pump \_\_\_\_\_ Bailer (Teflon)  
 \_\_\_\_\_ Centrifugal Pump X Bailer ( \_\_\_\_\_ PVC or X disposable)  
 \_\_\_\_\_ Submersible Pump \_\_\_\_\_ Bailer (Stainless Steel)  
 \_\_\_\_\_ Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_

WELL INTEGRITY: GOOD LOCK#: MASTER

REMARKS: DO 1.17

SIGNATURE: [Signature] Page \_\_\_\_\_ of \_\_\_\_\_

BP ALAMEDA PORTFOLIO

WATER SAMPLE FIELD DATA SHEET

PROJECT #: 6002 PURGED BY: RH WELL ID.: MW-4
CLIENT NAME: SAMPLER BY: RH SAMPLE ID.: MW-4
LOCATION: Oakland - 6235 Seminary Ave. QA SAMPLES:

DATE PURGED 8/21/08 START (2400hr) 11:53 END (2400hr) 12:02
DATE SAMPLED 8/21/08 MP SAMPLE TIME (2400hr) 11:59
SAMPLE TYPE: Groundwater x Surface Water Treatment Effluent Other

CASING DIAMETER: 2" 3" 4" 6" 8" Other
Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ( )

DEPTH TO BOTTOM (feet) = 24.05 CASING VOLUME (gal) =
DEPTH TO WATER (feet) = 12.37 MP CALCULATED PURGE (gal) =
WATER COLUMN HEIGHT (feet) = ACTUAL PURGE (gal) =

FIELD MEASUREMENTS

Table with 8 columns: DATE, TIME (2400hr), VOLUME (gal), TEMP. (degrees F), CONDUCTIVITY (umhos/cm), pH (units), COLOR (visual), TURBIDITY (NTU). Includes handwritten data for 8/21/08 at 11:56 and a large 'NO PURGE' signature.

SAMPLE DEPTH TO WATER: 12.37 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE: YES NO ANALYSES: GWO
ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAS HCL

PURGING EQUIPMENT

SAMPLING EQUIPMENT

Bladder Pump Bailer (Teflon)
Centrifugal Pump Bailer (PVC)
Submersible Pump Bailer (Stainless Steel)
Peristaltic Pump Dedicated

Bladder Pump Bailer (Teflon)
Centrifugal Pump Bailer (PVC or disposable)
Submersible Pump Bailer (Stainless Steel)
Peristaltic Pump Dedicated

Other:
Pump Depth: NA

Other:

WELL INTEGRITY: GOOD LOCK#: MASTER

REMARKS: DO 1.39

SIGNATURE: [Handwritten Signature]

**BP ALAMEDA PORTFOLIO**  
**WATER SAMPLE FIELD DATA SHEET**

PROJECT #: 6002 PURGED BY: RH WELL I.D.: MW-5  
 CLIENT NAME: \_\_\_\_\_ SAMPLED BY: RH SAMPLE I.D.: MW-5  
 LOCATION: Oakland - 6235 Seminary Ave. QA SAMPLES: \_\_\_\_\_

DATE PURGED 8/21/08 START (2400hr) 12:10 END (2400hr) 12:19  
 DATE SAMPLED 8/21/08 SAMPLE TIME (2400hr) 12:17  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2" \_\_\_\_\_ 3" \_\_\_\_\_ 4" X 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) = \_\_\_\_\_  
 DEPTH TO WATER (feet) = 12.42 CALCULATED PURGE (gal) = \_\_\_\_\_  
 WATER COLUMN HEIGHT (feet) = \_\_\_\_\_ ACTUAL PURGE (gal) = \_\_\_\_\_

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>8/21/08</u>	<u>12:13</u>	<u>NA</u>	<u>19.9</u>	<u>618</u>	<u>6.78</u>	<u>clear</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 12.42 SAMPLE TURBIDITY: clear  
 80% RECHARGE: YES NO \_\_\_\_\_ ANALYSES: SWD  
 ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAS/HCL

PURGING EQUIPMENT

Bladder Pump \_\_\_\_\_ Bailer (Teflon) \_\_\_\_\_  
 Centrifugal Pump \_\_\_\_\_ Bailer (PVC) \_\_\_\_\_  
 Submersible Pump \_\_\_\_\_ Bailer (Stainless Steel) \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_  
 Pump Depth: NA

SAMPLING EQUIPMENT

Bladder Pump \_\_\_\_\_ Bailer (Teflon) \_\_\_\_\_  
 Centrifugal Pump \_\_\_\_\_ Bailer (PVC or  disposable) \_\_\_\_\_  
 Submersible Pump \_\_\_\_\_ Bailer (Stainless Steel) \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_

WELL INTEGRITY: 6000 LOCK#: MASTER

REMARKS: DO 1.24

SIGNATURE: [Signature] Page \_\_\_\_\_ of \_\_\_\_\_

**BP ALAMEDA PORTFOLIO**  
**WATER SAMPLE FIELD DATA SHEET**

PROJECT #: 6002 PURGED BY: RH WELL I.D.: MW-6  
 CLIENT NAME: \_\_\_\_\_ SAMPLED BY: RH SAMPLE I.D.: MW-6  
 LOCATION: Oakland - 6235 Seminary Ave. QA SAMPLES: \_\_\_\_\_

DATE PURGED 8/21/08 START (2400hr) 11:32 END (2400hr) 11:46  
 DATE SAMPLED 8/21/08 SAMPLE TIME (2400hr) 11:44  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2"  3" \_\_\_\_\_ 4" \_\_\_\_\_ 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) = 32.90 CASING VOLUME (gal) = 4.3  
 DEPTH TO WATER (feet) = 7.17 CALCULATED PURGE (gal) = 13.1  
 WATER COLUMN HEIGHT (feet) = 25.7 ACTUAL PURGE (gal) = 13.5

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>8/21/08</u>	<u>11:34</u>	<u>5</u>	<u>22.7</u>	<u>446.1</u>	<u>7.26</u>	<u>clear</u>	
<u>✓</u>	<u>11:36</u>	<u>9</u>	<u>22.7</u>	<u>430.3</u>	<u>7.27</u>		
	<u>11:38</u>	<u>13.5</u>	<u>22.7</u>	<u>420.5</u>	<u>7.27</u>	<u>✓</u>	

SAMPLE INFORMATION

SAMPLE DEPTH TO WATER: 9.02 SAMPLE TURBIDITY: clear  
 80% RECHARGE:  YES  NO ANALYSES: GW  
 ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAS / HCL

PURGING EQUIPMENT

Bladder Pump \_\_\_\_\_ Bailer (Teflon) \_\_\_\_\_  
 Centrifugal Pump \_\_\_\_\_ Bailer (PVC) \_\_\_\_\_  
 Submersible Pump \_\_\_\_\_ Bailer (Stainless Steel) \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_  
 Pump Depth: 32

SAMPLING EQUIPMENT

Bladder Pump \_\_\_\_\_ Bailer (Teflon) \_\_\_\_\_  
 Centrifugal Pump \_\_\_\_\_ Bailer ( \_\_\_\_\_ PVC or  disposable) \_\_\_\_\_  
 Submersible Pump \_\_\_\_\_ Bailer (Stainless Steel) \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_

WELL INTEGRITY: GOOD LOCK#: MASTED

REMARKS: NO L 38

SIGNATURE: [Signature] Page \_\_\_\_\_ of \_\_\_\_\_

**BP ALAMEDA PORTFOLIO**  
**WATER SAMPLE FIELD DATA SHEET**

PROJECT #: 6002 PURGED BY: RH WELL I.D.: KW-1  
 CLIENT NAME: \_\_\_\_\_ SAMPLED BY: RH SAMPLE I.D.: KW-1  
 LOCATION: Oakland - 6235 Seminary Ave. QA SAMPLES: \_\_\_\_\_

DATE PURGED 8/21/08 START (2400hr) 11:00 END (2400hr) 11:09  
 DATE SAMPLED 8/21/08 SAMPLE TIME (2400hr) 11:07  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2" \_\_\_\_\_ 3" \_\_\_\_\_ 4" X 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) = 13.12 CASING VOLUME (gal) = \_\_\_\_\_  
 DEPTH TO WATER (feet) = 7.52 CALCULATED PURGE (gal) = \_\_\_\_\_  
 WATER COLUMN HEIGHT (feet) = \_\_\_\_\_ ACTUAL PURGE (gal) = \_\_\_\_\_

FIELD MEASUREMENTS

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>8/21/08</u>	<u>11:04</u>	<u>NP</u>	<u>22.6</u>	<u>421.6</u>	<u>6.99</u>	<u>clear</u>	

SAMPLE DEPTH TO WATER: 7.52 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE:  YES  NO ANALYSES: SWO  
 ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAS / HCL

PURGING EQUIPMENT

Bladder Pump \_\_\_\_\_ Bailer (Teflon) \_\_\_\_\_  
 Centrifugal Pump \_\_\_\_\_ Bailer (PVC) \_\_\_\_\_  
 Submersible Pump NA Bailer (Stainless Steel) \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_  
 Pump Depth: NA

SAMPLING EQUIPMENT

Bladder Pump \_\_\_\_\_ Bailer (Teflon) \_\_\_\_\_  
 Centrifugal Pump \_\_\_\_\_ Bailer (PVC or  disposable) \_\_\_\_\_  
 Submersible Pump \_\_\_\_\_ Bailer (Stainless Steel) \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_

WELL INTEGRITY: GOOD LOCK#: MASTER

REMARKS: DO 1.09

SIGNATURE: [Signature] Page \_\_\_\_\_ of \_\_\_\_\_



**WATER SAMPLE FIELD DATA SHEET**

PROJECT #: 6002 PURGED BY: RH WELL ID.: VW-4  
 CLIENT NAME: \_\_\_\_\_ SAMPLED BY: RH SAMPLE ID.: VW-4  
 LOCATION: Oakland - 6235 Seminary Ave. QA SAMPLES: \_\_\_\_\_

DATE PURGED 8/21/08 NP START (2400hr) 11:15 END (2400hr) 11:25  
 DATE SAMPLED 8/21/08 SAMPLE TIME (2400hr) 11:23  
 SAMPLE TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_

CASING DIAMETER: 2" \_\_\_\_\_ 3" \_\_\_\_\_ 4"  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) = 14.21 CASING VOLUME (gal) = \_\_\_\_\_  
 DEPTH TO WATER (feet) = 10.04 NP CALCULATED PURGE (gal) = NP  
 WATER COLUMN HEIGHT (feet) = \_\_\_\_\_ ACTUAL PURGE (gal) = \_\_\_\_\_

**FIELD MEASUREMENTS**

DATE	TIME (2400hr)	VOLUME (gal)	TEMP. (degrees F)	CONDUCTIVITY (umhos/cm)	pH (units)	COLOR (visual)	TURBIDITY (NTU)
<u>8/21/08</u>	<u>11:19</u>	<u>NP</u>	<u>76.0</u>	<u>649</u>	<u>6.89</u>	<u>clear</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

*NO PURGE*

SAMPLE DEPTH TO WATER: 10.04 SAMPLE INFORMATION SAMPLE TURBIDITY: clear

80% RECHARGE:  YES \_\_\_\_\_ NO ANALYSES: SWO  
 ODOR: NO SAMPLE VESSEL / PRESERVATIVE: 6 VOAS / HCL

**PURGING EQUIPMENT**

Bladder Pump \_\_\_\_\_ Bailer (Teflon) \_\_\_\_\_  
 Centrifugal Pump \_\_\_\_\_ Bailer (PVC) \_\_\_\_\_  
 Submersible Pump NA Bailer (Stainless Steel) \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_  
 Pump Depth: NA

**SAMPLING EQUIPMENT**

Bladder Pump \_\_\_\_\_ Bailer (Teflon) \_\_\_\_\_  
 Centrifugal Pump \_\_\_\_\_ Bailer (PVC or ~~disposable~~) \_\_\_\_\_  
 Submersible Pump  Bailer (Stainless Steel) \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Dedicated \_\_\_\_\_  
 Other: \_\_\_\_\_

WELL INTEGRITY: GOOD LOCK#: MASTER

REMARKS: DO 1.29

SIGNATURE: [Signature] Page \_\_\_\_\_ of \_\_\_\_\_

# WELLHEAD OBSERVATION FORM



Site Name/Number: 6002

Date: 8/21/08 Technician: ROBERTO

Well I.D.	Box in Good Condition? <small>X = Yes Blank = No</small>	Lock Missing? <small>X = Yes (replaced) Blank = No</small>	Water in Wellbox? <small>X = Yes Blank = No</small>	Water Level Relative to Cap? <small>A = Above cap B = Below cap L = Level w/cap</small>	Well Cap? <small>I = Intact M = Missing or Compromised (replace)</small>	Bolts Missing? <small>X = Yes Blank = No</small>	Bolts Stripped? <small>X = Yes Blank = No</small>	Bolt Holes Stripped? <small>X = Yes Blank = No</small>	Cracked or Broken Lid? <small>X = Yes Blank = No</small>	Cracked or Broken Box? <small>X = Yes Blank = No</small>	Grout Level more than 1ft below TOC? <small>X = Yes Blank = No</small>	Additional Comments <small>(such as missing lid, concrete cracks, replacement, or other - explain)</small>
MW-3	X	—	—	—	I	—	—	—	—	—	—	
MW-4	X	—	—	—	I	—	—	—	—	—	—	
MW-5	X	—	—	—	I	—	—	—	—	—	—	
MW-6	X	—	—	—	I	—	X	—	—	—	—	
MW-7	X	—	—	—	I	—	—	—	—	—	—	
MW-8	DID NOT ACCESS WELL											
VW-1	X	—	—	—	I	—	—	—	—	—	—	
VW-3	X	—	—	—	I	NA	NA	NA	—	—	—	NO BOLTS NEEDED
VW-4	X	—	—	—	I	NA	NA	NA	—	—	—	NO BOLTS NEEDED

**DRUM INVENTORY**

Drums on site? Yes  **No**  (circle)  
 Type and # Steel: \_\_\_\_\_ Plastic: \_\_\_\_\_

Note whether drums are full or empty, solids or liquids:  
 \_\_\_\_\_  
 \_\_\_\_\_

Drum label info (description, date, contact info):  
 \_\_\_\_\_  
 \_\_\_\_\_

**GENERAL SITE CONDITIONS**

Make notes on housekeeping conditions (such as trash around remediation system enclosure/compound, bent or missing bollards, signs missing from compound fences, graffiti on compound, etc.)

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

NO. 672326

# NON-HAZARDOUS WASTE DATA FORM

SITE:

EPA I.D. NO.

NOT REQUIRED

NAME BP WEST COAST PRODUCTS LLC ARCO # 6002

ADDRESS P.O. BOX 80249 6235 SAMMNEY AVE

RANCHO SANTA MARGARITA OAKLAND

CITY, STATE, ZIP CA 92688

PHONE NO. \_\_\_\_\_

CONTAINERS: No. \_\_\_\_\_ VOLUME 13.5 GAL WEIGHT \_\_\_\_\_

TYPE:  TANK TRUCK  DUMP TRUCK  DRUMS  CARTONS  OTHER \_\_\_\_\_

WASTE DESCRIPTION NON-HAZARDOUS WATER GENERATING PROCESS WELL PURGING/DECON WATER

1. WATER 99-100% 5. \_\_\_\_\_

2. TPH <1% 6. \_\_\_\_\_

3. \_\_\_\_\_ 7. BESI#

4. \_\_\_\_\_ 8. \_\_\_\_\_

PROPERTIES: 7-10  SOLID  LIQUID  SLUDGE  SLURRY  OTHER \_\_\_\_\_

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Larry Heathart BESI for BP

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE

TO BE COMPLETED BY GENERATOR

TRANSPORTER

NAME Transporter #1 STRATUS ENVIRONMENTAL

ADDRESS 3330 CAMERON PARK DR

CITY, STATE, ZIP CAMERON PARK, CA 95582

PHONE NO. 330-676-2031

TRUCK, UNIT, I.D. NO. \_\_\_\_\_

NAME Transporter #2

TYPED OR PRINTED FULL NAME & SIGNATURE \_\_\_\_\_

DATE

EPA I.D. NO.

SERVICE ORDER NO. \_\_\_\_\_

PICK UP DATE \_\_\_\_\_

TSD FACILITY

NAME INSTRAT, INC

ADDRESS 1105 AIRPORT RD #C

CITY, STATE, ZIP RIO VISTA, CA 94571

PHONE NO. 530-759-1829

EPA I.D. NO.

DISPOSAL METHOD

LANDFILL  OTHER \_\_\_\_\_

TYPED OR PRINTED FULL NAME & SIGNATURE

DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	
CO		RECD	HWDF	NONE

DISCREPANCY

## Chain of Custody Record

Project Name: BP 6002  
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > CA > Alameda > 6002  
 State or Lead Regulatory Agency: \_\_\_\_\_  
 Requested Due Date (mm/dd/yy): \_\_\_\_\_

On-site Time:	<u>10:00</u>	Temp:	<u>64</u>
Off-site Time:	<u>12:35</u>	Temp:	<u>64</u>
Sky Conditions:	<u>clear</u>		
Meteorological Events:	<u>N/A</u>		
Wind Speed:	<u>0</u>	Direction:	<u>NA</u>

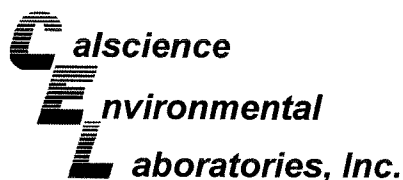
Lab Name: <u>Calscience</u>	BP/AR Facility No.: <u>6002</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>7440 Lincoln Way</u>	BP/AR Facility Address: <u>6235 Seminary Avenue, Oakland</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u>
<u>Garden Grove, CA 92841</u>	Site Lat/Long: _____	<u>Cameron Park, CA 95682</u>
Lab PM: <u>Linda Scharpenberg</u>	California Global ID #: <u>T0600100105</u>	Consultant/Contractor Project No.: <u>E6002-04</u>
Tele/Fax: <u>714-895-5494 714-895-7501(fax)</u>	Enfos Project No.: <u>G0CRK-0021</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or RCOP (circle one) <u>Provision</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u>	Phase/WBS: <u>04-Monitoring</u>	Report Type & QC Level: <u>Level I with EDF</u>
<u>San Ramon, CA</u>	Sub Phase/Task: <u>03-Analytical</u>	E-mail EDD To: <u>bcarroll@stratusinc.net</u>
Tele/Fax: <u>925-275-3506</u>	Cost Element: <u>01-Contractor labor</u>	Invoice to: <u>Atlantic Richfield Co.</u>

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis				Sample Point Lat/Long and Comments *Oxy = MTBD, TAME, ETBE, DIPE, TBA
				Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GROB/TEXON*	1,2 DCA	EDB	Ethanol by 9260	
1	MW-3	<u>10:52</u>	<u>8/21/08</u>	X				6				X	X	X	X			
2	MW-4	<u>11:59</u>	<u>8/21/08</u>	X				6				X	X	X	X			
3	MW-5	<u>12:17</u>	<u>8/21/08</u>	X				6				X	X	X	X			
4	MW-6	<u>11:44</u>	<u>8/21/08</u>	X				6				X	X	X	X			
5	MW-7			X								X	X	X	X			
6	MW-8			X								X	X	X	X			
7	VW-1	<u>11:07</u>	<u>8/21/08</u>	X				6				X	X	X	X			
8	VW-4	<u>11:23</u>	<u>8/21/08</u>	X				6				X	X	X	X			
9	TB 6002 <u>8/21/08-6:00</u>	<u>6:00</u>	<u>8/21/08</u>	X				2				X	X	X	X			<b>HOLD</b>
10																		

Sampler's Name: <u>ROBERTO HEIMLICH</u>	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: <u>DOULOS ENV</u>						
Shipment Date:						
Shipment Method:						
Shipment Tracking No.:						

Special Instructions: Please cc results to: rmliller@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



September 05, 2008

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

Subject: **Calscience Work Order No.:** 08-08-2124  
**Client Reference:** BP 6002

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 8/23/2008 and analyzed in accordance with the attached chain-of-custody.

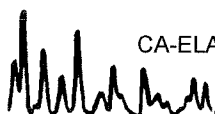
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows 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.

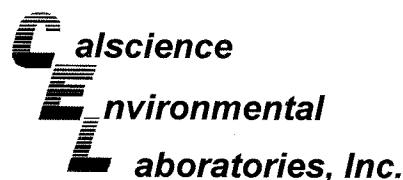
If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Linda Scharpenberg". The signature is written in a cursive style with a horizontal line underneath the name.

Calscience Environmental  
Laboratories, Inc.  
Linda Scharpenberg  
Project Manager





## Analytical Report



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

Date Received: 08/23/08  
Work Order No: 08-08-2124  
Preparation: EPA 5030B  
Method: EPA 8015B (M)

Project: BP 6002

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	08-08-2124-1-E	08/21/08 10:52	Aqueous	GC 4	08/29/08	08/30/08 00:07	080829B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	55	38-134	

MW-4	08-08-2124-2-E	08/21/08 11:59	Aqueous	GC 4	08/29/08	08/30/08 00:40	080829B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	56	38-134	

MW-5	08-08-2124-3-E	08/21/08 12:17	Aqueous	GC 4	08/29/08	08/30/08 01:13	080829B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	4700	1000	20		ug/L

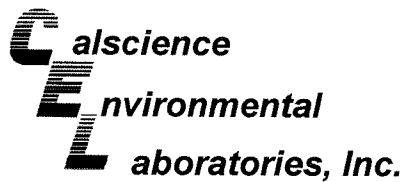
Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	62	38-134	

MW-6	08-08-2124-4-E	08/21/08 11:44	Aqueous	GC 4	08/29/08	08/30/08 01:46	080829B01
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Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	56	38-134	

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



## Analytical Report



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

Date Received: 08/23/08  
Work Order No: 08-08-2124  
Preparation: EPA 5030B  
Method: EPA 8015B (M)

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
VW-1	08-08-2124-5-E	08/21/08 11:07	Aqueous	GC 4	08/29/08	08/30/08 02:19	080829B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	53	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW-4	08-08-2124-6-E	08/21/08 11:23	Aqueous	GC 4	08/29/08	08/30/08 02:52	080829B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	74	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	55	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-695-248	N/A	Aqueous	GC 4	08/29/08	08/29/08 19:12	080829B01

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	53	38-134			

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

## Analytical Report



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

Date Received: 08/23/08  
 Work Order No: 08-08-2124  
 Preparation: EPA 5030B  
 Method: EPA 8260B  
 Units: ug/L

Project: BP 6002

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW-3</b>	<b>08-08-2124-1-A</b>	<b>08/21/08 10:52</b>	<b>Aqueous</b>	<b>GC/MS BB</b>	<b>08/29/08</b>	<b>08/29/08 23:56</b>	<b>080829L01</b>

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	0.81	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	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,2-Dichloroethane-d4	98	73-157			Dibromofluoromethane	105	82-142		
Toluene-d8	102	82-112			1,4-Bromofluorobenzene	95	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW-4</b>	<b>08-08-2124-2-A</b>	<b>08/21/08 11:59</b>	<b>Aqueous</b>	<b>GC/MS BB</b>	<b>08/29/08</b>	<b>08/30/08 00:29</b>	<b>080829L01</b>

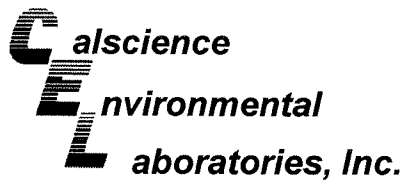
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	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	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,2-Dichloroethane-d4	98	73-157			Dibromofluoromethane	108	82-142		
Toluene-d8	102	82-112			1,4-Bromofluorobenzene	97	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW-5</b>	<b>08-08-2124-3-A</b>	<b>08/21/08 12:17</b>	<b>Aqueous</b>	<b>GC/MS BB</b>	<b>08/29/08</b>	<b>08/30/08 01:03</b>	<b>080829L01</b>

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	8.7	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	40	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	3.6	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	0.60	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	1.4	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,2-Dichloroethane-d4	95	73-157			Dibromofluoromethane	108	82-142		
Toluene-d8	108	82-112			1,4-Bromofluorobenzene	102	75-105		

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





## Analytical Report



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

Date Received: 08/23/08  
Work Order No: 08-08-2124  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: BP 6002

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW-6</b>	<b>08-08-2124-4-B</b>	<b>08/21/08 11:44</b>	<b>Aqueous</b>	<b>GC/MS BB</b>	<b>09/02/08</b>	<b>09/03/08 02:26</b>	<b>080902L02</b>

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	
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
1,2-Dichloroethane-d4	92	73-157			Dibromofluoromethane	104	82-142		
Toluene-d8	102	82-112			1,4-Bromofluorobenzene	94	75-105		

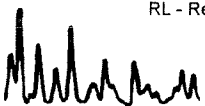
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>VW-1</b>	<b>08-08-2124-5-C</b>	<b>08/21/08 11:07</b>	<b>Aqueous</b>	<b>GC/MS BB</b>	<b>09/02/08</b>	<b>09/03/08 02:59</b>	<b>080902L02</b>

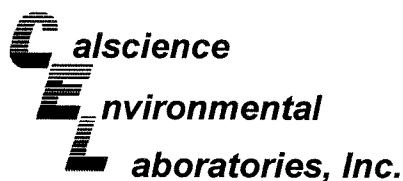
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	1.4	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	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	
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
1,2-Dichloroethane-d4	92	73-157			Dibromofluoromethane	107	82-142		
Toluene-d8	105	82-112			1,4-Bromofluorobenzene	95	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>VW-4</b>	<b>08-08-2124-6-B</b>	<b>08/21/08 11:23</b>	<b>Aqueous</b>	<b>GC/MS BB</b>	<b>09/02/08</b>	<b>09/03/08 03:33</b>	<b>080902L02</b>

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	2.5	5		Methyl-t-Butyl Ether (MTBE)	3.2	2.5	5	
1,2-Dibromoethane	ND	2.5	5		Tert-Butyl Alcohol (TBA)	720	50	5	
1,2-Dichloroethane	ND	2.5	5		Diisopropyl Ether (DIPE)	ND	2.5	5	
Ethylbenzene	ND	2.5	5		Ethyl-t-Butyl Ether (ETBE)	ND	2.5	5	
Toluene	ND	2.5	5		Tert-Amyl-Methyl Ether (TAME)	ND	2.5	5	
Xylenes (total)	ND	2.5	5		Ethanol	ND	1500	5	
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
1,2-Dichloroethane-d4	99	73-157			Dibromofluoromethane	110	82-142		
Toluene-d8	100	82-112			1,4-Bromofluorobenzene	96	75-105		

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





## Analytical Report



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

Date Received: 08/23/08  
Work Order No: 08-08-2124  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: BP 6002

Page 3 of 3

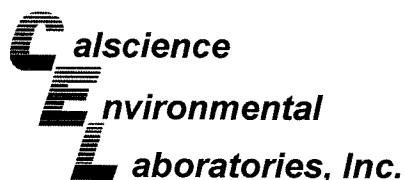
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-420	N/A	Aqueous	GC/MS BB	08/29/08	08/29/08 16:37	080829L01

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	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,2-Dichloroethane-d4	95	73-157			Dibromofluoromethane	101	82-142		
Toluene-d8	105	82-112			1,4-Bromofluorobenzene	96	75-105		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-703-422	N/A	Aqueous	GC/MS BB	09/02/08	09/03/08 01:52	080902L02

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	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,2-Dichloroethane-d4	88	73-157			Dibromofluoromethane	99	82-142		
Toluene-d8	103	82-112			1,4-Bromofluorobenzene	95	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

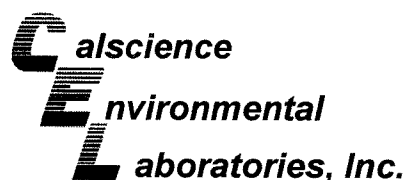
Date Received: 08/23/08  
 Work Order No: 08-08-2124  
 Preparation: EPA 5030B  
 Method: EPA 8015B (M)

Project BP 6002

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-08-2137-1	Aqueous	GC 4	08/29/08	08/29/08	080829S01

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	91	86	38-134	6	0-25	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



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

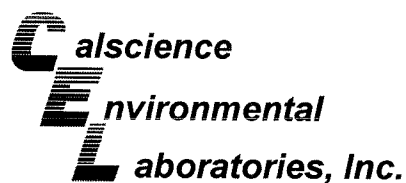
Date Received: 08/23/08  
Work Order No: 08-08-2124  
Preparation: EPA 5030B  
Method: EPA 8260B

Project BP 6002

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
08-08-2136-1	Aqueous	GC/MS BB	08/29/08	08/29/08	080829S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	108	104	86-122	4	0-8	
Carbon Tetrachloride	99	100	78-138	1	0-9	
Chlorobenzene	104	102	90-120	2	0-9	
1,2-Dibromoethane	98	94	70-130	4	0-30	
1,2-Dichlorobenzene	103	101	89-119	3	0-10	
1,1-Dichloroethene	100	103	52-142	3	0-23	
Ethylbenzene	96	98	70-130	2	0-30	
Toluene	109	108	85-127	0	0-12	
Trichloroethene	103	97	78-126	6	0-10	
Vinyl Chloride	122	122	56-140	0	0-21	
Methyl-t-Butyl Ether (MTBE)	97	91	64-136	5	0-28	
Tert-Butyl Alcohol (TBA)	103	100	27-183	3	0-60	
Diisopropyl Ether (DIPE)	113	97	78-126	15	0-16	
Ethyl-t-Butyl Ether (ETBE)	101	98	67-133	3	0-21	
Tert-Amyl-Methyl Ether (TAME)	97	93	63-141	4	0-21	
Ethanol	107	112	11-167	5	0-64	

RPD - Relative Percent Difference, CL - Control Limit



## Quality Control - Spike/Spike Duplicate



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

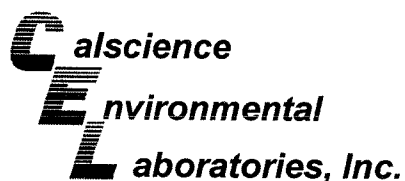
Date Received: 08/23/08  
Work Order No: 08-08-2124  
Preparation: EPA 5030B  
Method: EPA 8260B

Project BP 6002

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-6	Aqueous	GC/MS BB	09/02/08	09/03/08	080902S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	112	112	86-122	1	0-8	
Carbon Tetrachloride	102	104	78-138	2	0-9	
Chlorobenzene	107	111	90-120	4	0-9	
1,2-Dibromoethane	101	109	70-130	7	0-30	
1,2-Dichlorobenzene	109	110	89-119	1	0-10	
1,1-Dichloroethene	99	106	52-142	7	0-23	
Ethylbenzene	96	102	70-130	6	0-30	
Toluene	110	116	85-127	5	0-12	
Trichloroethene	104	105	78-126	1	0-10	
Vinyl Chloride	125	133	56-140	6	0-21	
Methyl-t-Butyl Ether (MTBE)	101	104	64-136	3	0-28	
Tert-Butyl Alcohol (TBA)	118	115	27-183	2	0-60	
Diisopropyl Ether (DIPE)	112	116	78-126	3	0-16	
Ethyl-t-Butyl Ether (ETBE)	101	96	67-133	5	0-21	
Tert-Amyl-Methyl Ether (TAME)	97	98	63-141	1	0-21	
Ethanol	116	100	11-167	15	0-64	

RPD - Relative Percent Difference, CL - Control Limit



Quality Control - LCS/LCS Duplicate



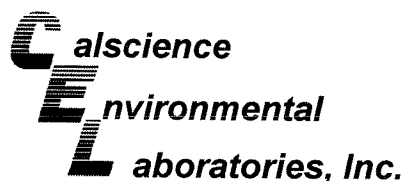
Stratus Environmental, inc.	Date Received:	N/A
3330 Cameron Park Drive, Suite 550	Work Order No:	08-08-2124
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8015B (M)

Project: BP 6002

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-248	Aqueous	GC 4	08/29/08	08/29/08	080829B01

<u>Parameter</u>	<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)	95	91	78-120	4	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## 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: 08-08-2124  
Preparation: EPA 5030B  
Method: EPA 8260B

Project: BP 6002

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-703-420	Aqueous	GC/MS BB	08/29/08	08/29/08	080829L01		
<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>ME CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	106	107	87-117	82-122	0	0-7	
Carbon Tetrachloride	100	103	78-132	69-141	2	0-8	
Chlorobenzene	100	104	88-118	83-123	4	0-8	
1,2-Dibromoethane	91	95	80-120	73-127	4	0-20	
1,2-Dichlorobenzene	100	103	88-118	83-123	4	0-8	
1,1-Dichloroethene	106	103	71-131	61-141	3	0-14	
Ethylbenzene	99	101	80-120	73-127	2	0-20	
Toluene	108	111	85-127	78-134	3	0-7	
Trichloroethene	102	104	85-121	79-127	2	0-11	
Vinyl Chloride	126	122	64-136	52-148	3	0-10	
Methyl-t-Butyl Ether (MTBE)	95	100	67-133	56-144	5	0-16	
Tert-Butyl Alcohol (TBA)	103	104	34-154	14-174	1	0-19	
Diisopropyl Ether (DIPE)	112	113	80-122	73-129	2	0-8	
Ethyl-t-Butyl Ether (ETBE)	101	98	73-127	64-136	2	0-11	
Tert-Amyl-Methyl Ether (TAME)	95	99	69-135	58-146	4	0-12	
Ethanol	108	83	34-124	19-139	26	0-44	

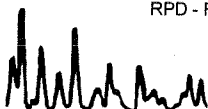
Total number of LCS compounds : 16

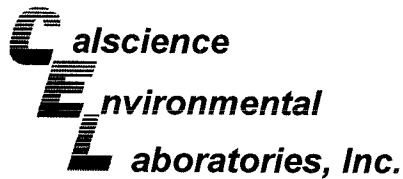
Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





## 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: 08-08-2124  
Preparation: EPA 5030B  
Method: EPA 8260B

Project: BP 6002

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
<b>099-12-703-422</b>	<b>Aqueous</b>	<b>GC/MS BB</b>	<b>09/02/08</b>	<b>09/03/08</b>	<b>080902L02</b>		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	109	107	87-117	82-122	2	0-7	
Carbon Tetrachloride	99	100	78-132	69-141	2	0-8	
Chlorobenzene	106	107	88-118	83-123	1	0-8	
1,2-Dibromoethane	102	97	80-120	73-127	5	0-20	
1,2-Dichlorobenzene	105	108	88-118	83-123	3	0-8	
1,1-Dichloroethene	102	105	71-131	61-141	2	0-14	
Ethylbenzene	101	101	80-120	73-127	0	0-20	
Toluene	112	114	85-127	78-134	2	0-7	
Trichloroethene	104	108	85-121	79-127	4	0-11	
Vinyl Chloride	124	126	64-136	52-148	2	0-10	
Methyl-t-Butyl Ether (MTBE)	95	92	67-133	56-144	4	0-16	
Tert-Butyl Alcohol (TBA)	100	106	34-154	14-174	6	0-19	
Diisopropyl Ether (DIPE)	104	106	80-122	73-129	1	0-8	
Ethyl-t-Butyl Ether (ETBE)	96	96	73-127	64-136	0	0-11	
Tert-Amyl-Methyl Ether (TAME)	94	95	69-135	58-146	1	0-12	
Ethanol	108	115	34-124	19-139	7	0-44	

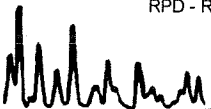
Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit







Work Order Number: 08-08-2124

<u>Qualifier</u>	<u>Definition</u>
AX	Sample too dilute to quantify surrogate.
AY	Matrix interference suspected.
BA	Relative percent difference out of control.
BA,AY	Relative percent difference out of control, matrix interference suspected.
BB	Sample > 4x spike concentration.
BF	Reporting limits raised due to high hydrocarbon background.
BH	Reporting limits raised due to high level of non-target analytes.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
BY	Sample received at improper temperature.
CL	Initial analysis within holding time but required dilution.
CQ	Analyte concentration greater than 10 times the blank concentration.
CU	Surrogate concentration diluted to not detectable during analysis.
DF	Reporting limits elevated due to matrix interferences.
ET	Sample was extracted past end of recommended max. holding time.
EY	Result exceeds normal dynamic range; reported as a min est.
GN	Surrogate recovery is outside of control limits.
GS	Internal standard recovery is outside method recovery limit.
IB	CCV recovery abovelimit; analyte not detected.
IH	Calibrtn. verif. recov. below method CL for this analyte.
IJ	Calibrtn. verif. recov. above method CL for this analyte.
J,DX	J=EPA Flag -Estimated value; DX= Value < lowest standard (MQL), but > than MDL.
LA	Confirmatory analysis was past holding time.
LG	Surrogate recovery below the acceptance limit.
LH	Surrogate recovery above the acceptance limit.
LM,AY	MS and/or MSD above acceptance limits. See Blank Spike (LCS). Matrix interference suspected.
LN,AY	MS and/or MSD below acceptance limits. See Blank Spike (LCS). Matrix interference suspected.
LQ	LCS recovery above method control limits.

Work Order Number: 08-08-2124

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<u>Qualifier</u>	<u>Definition</u>
LR	LCS recovery below method control limits.
MB	Analyte present in the method blank.
MG	Analyte is a suspected lab contaminate.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RB	RPD exceeded method control limit; % recoveries within limits.





bp  
A BP affiliated company

### Chain of Custody Record

Project Name: BP 6002  
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > CA > Alameda > 6002  
 State or Lead Regulatory Agency: \_\_\_\_\_  
 Requested Due Date (mm/dd/yy): \_\_\_\_\_

2124

On-site Time:	10:00	Temp:	64
Off-site Time:	12:35	Temp:	64
Sky Conditions:	clear		
Meteorological Events:	NA		
Wind Speed:	0	Direction:	NA

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	Enfos Project No.: G0C8K-0021	Tele/Fax: (530) 676-6000 / (530) 676-6005
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: bcarroll@stratusinc.net
	Sub Phase/Task: 03-Analytical	Invoice to: Atlantic Richfield Co.
	Cost Element: 01-Contractor labor	

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis				Sample Point Lat/Long and Comments *Oxy = MTBD, TAME, ETBE, DIPE, TBA
				Soil/Solid	Water/Liquid	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GRO/BTEX/Oxy*	1,2 DCA	EDB	Ethanol by 8260	
1	MW-3	10:52	8/2/07	X			1	6					X	X	X	X		
2	MW-4	11:59	8/2/08	X			2	6					X	X	X	X		
3	MW-5	12:17	8/2/08	X			3	6					X	X	X	X		
4	MW-6	11:44	8/2/07	X			4	6					X	X	X	X		
5	MW-7			X									X	X	X	X		
6	MW-8			X									X	X	X	X		
7	VW-1	11:07	8/2/08	X			5	6					X	X	X	X		
8	VW-4	11:23	8/2/08	X			6	6					X	X	X	X		
9	TB 6002 8/2/08-6:00	6:00	8/2/08	X			7	2					X	X	X	X		
10																		HOLD

Sampler's Name: <u>ROBERTO WEIMLICH</u>	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: <u>DOULOS ENV</u>						
Shipment Date:						
Shipment Method: <u>GSD</u>						
Shipment Tracking No: <u>105967030</u>						

Special Instructions: Please cc results to: rmillar@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



## ATTACHMENT

### FIELD PROCEDURES FOR GROUNDWATER SAMPLING

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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  $\mu$ s daily and 1413  $\mu$ s and 447  $\mu$ s 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<sup>®</sup> 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**



STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A GEO\_WELL FILE

**SUCCESS**

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

<b><u>Submittal Type:</u></b>	<b>GEO_WELL</b>
<b><u>Submittal Title:</u></b>	<b>3Q08 GEO_WELL 6002</b>
<b><u>Facility Global ID:</u></b>	<b>T0600100105</b>
<b><u>Facility Name:</u></b>	<b>ARCO #6002</b>
<b><u>File Name:</u></b>	<b>GEO_WELL.zip</b>
<b><u>Organization Name:</u></b>	<b>Broadbent &amp; Associates, Inc.</b>
<b><u>Username:</u></b>	<b>BROADBENT-C</b>
<b><u>IP Address:</u></b>	<b>67.118.40.90</b>
<b><u>Submittal Date/Time:</u></b>	<b>9/17/2008 9:41:16 AM</b>
<b><u>Confirmation Number:</u></b>	<b>7715071737</b>

STATE WATER RESOURCES CONTROL BOARD  
**GEOTRACKER ESI**

UPLOADING A EDF FILE

**SUCCESS**

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

<b><u>Submittal Type:</u></b>	<b>GWM_R</b>
<b><u>Submittal Title:</u></b>	<b>3Q08 GW Monitoring</b>
<b><u>Facility Global ID:</u></b>	<b>T0600100105</b>
<b><u>Facility Name:</u></b>	<b>ARCO #6002</b>
<b><u>File Name:</u></b>	<b>08082124.zip</b>
<b><u>Organization Name:</u></b>	<b>Broadbent &amp; Associates, Inc.</b>
<b><u>Username:</u></b>	<b>BROADBENT-C</b>
<b><u>IP Address:</u></b>	<b>67.118.40.90</b>
<b><u>Submittal Date/Time:</u></b>	<b>9/17/2008 9:43:58 AM</b>
<b><u>Confirmation Number:</u></b>	<b>3541869938</b>

[VIEW QC REPORT](#)

[VIEW DETECTIONS REPORT](#)