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Atlantic Richfield Company  
(a BP affiliated company)

P.O. Box 1257  
San Ramon, CA 94583  
Phone: (925) 275-3801  
Fax: (925) 275-3815

23 October 2006

Re: Third Quarter 2006 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:

A handwritten signature in black ink that reads "Paul Supple".

Paul Supple  
Environmental Business Manager

Prepared for

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

Prepared by



1324 Mangrove Avenue, Suite 212  
Chico, California 95926  
(530) 566-1400  
[www.broadbentinc.com](http://www.broadbentinc.com)

23 October 2006

Project No. 06-08-634

**Third Quarter 2006 Ground-Water Monitoring Report**  
Former Atlantic Richfield Company Station #6002  
6235 Seminary Avenue  
Oakland, California

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



23 October 2006

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 2006 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 2006 Ground-Water Monitoring Report* for Former Atlantic Richfield Company Station #6002 (herein referred to as Station #6002) located at 6235 Seminary Avenue, Oakland, California (Property). This report presents a summary of results from ground-water monitoring and sampling conducted during the Third Quarter of 2006.

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

Sincerely,

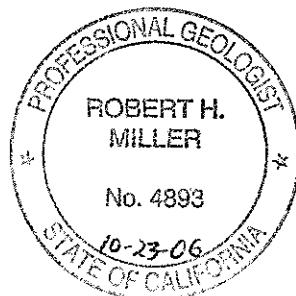
BROADBENT & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Thomas A. Venus".

Thomas A. Venus, P.E.  
Senior Engineer

A handwritten signature in black ink, appearing to read "Robert H. Miller".

Rob Miller, P.G., C.HG.  
Principal Hydrogeologist



Enclosures

cc: Mr. Steven Plunkett, Alameda County Environmental Health (Submitted via ACEH ftp site)

## STATION # 6002 QUARTERLY GROUND-WATER MONITORING REPORT

Facility: #6002	Address: 6235 Seminary Avenue
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 2006):

1. Prepared and submitted the Second Quarter 2006 Groundwater Monitoring Report.
2. Conducted ground-water monitoring/sampling for Third Quarter 2006. Work performed by URS on 25 August 2006.

### WORK PROPOSED FOR NEXT QUARTER (Fourth Quarter 2006):

1. Prepared and submitted this Third Quarter 2006 Ground-Water Monitoring Report (contained herein).
2. Conduct ground-water monitoring/sampling for Fourth Quarter 2006.
3. Prepare and submit the Fourth Quarter 2006 Ground-Water Monitoring Report.

### QUARTERLY RESULTS SUMMARY:

Current phase of project:	<u>Ground-water monitoring/sampling</u>
Frequency of ground-water sampling:	<u>Quarterly: Wells MW-5, VW-1, VW-4</u> <u>Annually (3Q): Wells MW-3, MW-4, MW-6, MW-7, MW-8</u>
Frequency of ground-water monitoring:	<u>Quarterly: Wells MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, VW-1, VW-3, VW-4</u>
Is free product (FP) present on-site:	<u>No</u>
Bulk Soil removed to Date:	<u>Approximately 370 cubic yards of TPH-impacted soil</u>
Current remediation techniques:	<u>NA</u>
Depth to ground water (below TOC):	<u>6.75 ft (MW-6) to 12.62 ft (MW-5)</u>
General ground-water flow direction:	<u>West</u>
Approximate hydraulic gradient:	<u>0.07 ft/ft</u>

### DISCUSSION:

The annual round of ground-water monitoring and sampling was conducted at Former ARCO Service Station #6002 by URS on 25 August 2006. No irregularities were noted during monitoring of wells the nine onsite and offsite wells associated with Station #6002. Depths to water and associated water level elevations were within the historic minimum and maximum ranges: the maximum water level elevation was observed in up-gradient well MW-6 at 251.19 ft above mean sea level; the minimum water level elevation was observed in down-gradient well MW-7 at 229.45 ft. The water level elevations yielded a potentiometric ground-water flow direction and gradient of 0.07 ft/ft to the west, consistent with the historic general flow directions and gradients. Well monitoring field data sheets are contained within Appendix A. Depths to water and associated water level elevations are summarized in Table 1. A map showing ground-water elevation contours is provided as Drawing 1. Historic flow directions and gradients since the first quarter of 1995 are summarized in Table 3.

The annual round of ground-water sampling was performed in accordance with the current sampling schedule. Samples were collected on 25 August 2006 from wells MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, VW-1, and VW-4. No irregularities were noted during sampling with the exception that wells VW-1 and VW-4 dewatered during purging prior to sampling. Samples were submitted under chain of custody documentation to Test America Analytical Testing Corporation (Morgan Hill, California) for analysis of Gasoline Range Organics (GRO, C4-C12) by LUFT GCMS method; Benzene, Toluene, Ethylbenzene, and Total Xylenes by EPA Method 8260B; and tert-Amyl methyl ether, tert-Butyl alcohol (TBA), Di-isopropyl ether, 1,2-Dibromomethane, 1,2-Dichloroethane, Ethanol, Ethyl tert-butyl ether (ETBE), and Methyl tert-butyl ether (MTBE) by EPA Method 8260B. No irregularities were noted during analysis of the samples by the laboratory. A copy of the laboratory analytical report, including chain of custody documentation, is provided in Appendix A.

Table 1 and Table 2 contain summaries of laboratory analytical results. GRO were detected above the laboratory reporting limit in three of the eight wells sampled this quarter with concentrations up to 3,700 micrograms per liter ( $\mu\text{g/L}$ ) in MW-5. Ethylbenzene was detected above the laboratory reporting limit in one well (MW-5) at 4.0  $\mu\text{g/L}$ . MTBE was detected above the laboratory reporting limit in three wells sampled up to a concentration of 17  $\mu\text{g/L}$  in both VW-4 and MW-5. TBA was detected above laboratory detection limits in well VW-4 at a concentration of 1,900  $\mu\text{g/L}$ . ETBE was detected in well VW-4 at a concentration of 1.9  $\mu\text{g/L}$ . No other fuel constituents, oxygenates or additives were detected above their respective laboratory reporting limits from the wells sampled this quarter. Drawing 1 presents analytical concentrations of GRO, benzene, and MTBE as reported from the Third Quarter of 2006.

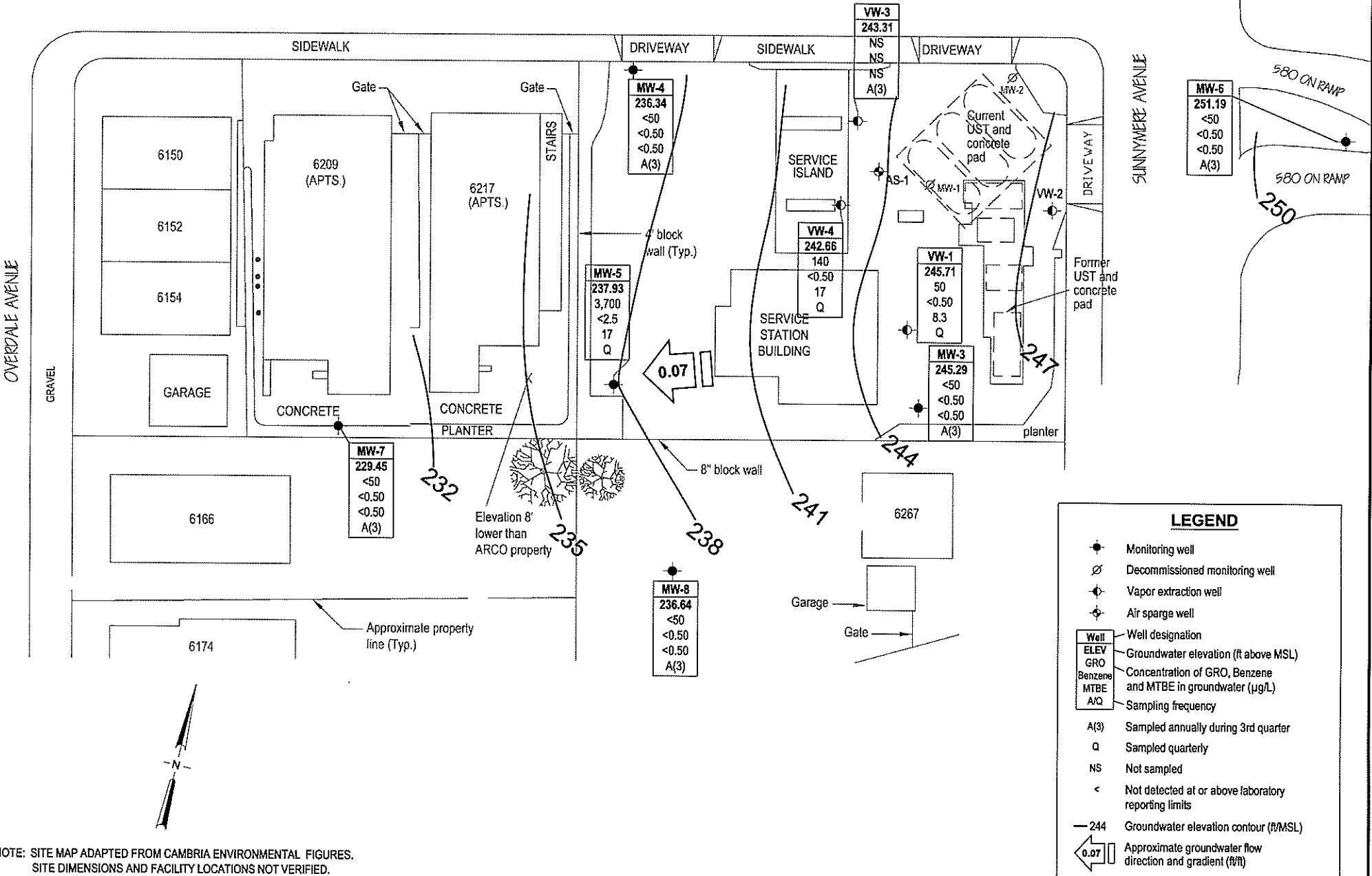
## CLOSURE:

The findings presented in this report are based upon: observations of URS field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by Test America. 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, 25 August 2006, 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, CA
- Table 2. Summary of Fuel Additives Analytical Data, Station #6002, 6235 Seminary Ave., Oakland, CA
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #6002, 6235 Seminary Avenue, Oakland, CA
- Appendix A. URS Ground-Water Sampling Data Package (Includes Laboratory Report and Chain of Custody Documentation, Field and Laboratory Procedures, and Field Data Sheets)
- Appendix B. GeoTracker Upload Confirmation

### SEMINARY AVENUE



#### LEGEND

●	Monitoring well
○	Decommissioned monitoring well
◆	Vapor extraction well
◇	Air sparge well
Well	Well designation
ELEV	Groundwater elevation (ft above MSL)
GRO	Concentration of GRO, Benzene and MTBE in groundwater ( $\mu\text{g/L}$ )
Benzene	
MTBE	
A/Q	Sampling frequency
A(3)	Sampled annually during 3rd quarter
Q	Sampled quarterly
NS	Not sampled
<	Not detected at or above laboratory reporting limits
— 244	Groundwater elevation contour (ft/MSL)
— 0.07	Approximate groundwater flow direction and gradient (ft/ft)

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

0 40 80  
SCALE (ft)



**BROADBENT & ASSOCIATES, INC.**  
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL  
1324 Mangrove Ave, Suite 212, Chico, California 95926  
Project No.: 06-08-634 Date: 10/11/06

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

Ground-Water Elevation Contour  
and Analytical Summary Map  
25 August 2006

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		
AS-1									<50	1.6	<0.5	0.9	0.9	--	--	--
6/29/1995	--		--	20.0	22.0	9.2	--	--	<50	1.6	<0.5	0.9	0.9	--	--	--
MW-1																
	3/15/1995	--	247.06	4.5	24.5	7.37	--	239.69	13,000	1,200	44	770	1,100	--	--	--
	5/30/1995	--	247.06	4.5	24.5	8.48	--	238.58	19,000	1,600	30	890	1,400	--	--	--
	9/1/1995	--	247.06	4.5	24.5	9.47	--	237.59	14,000	1,300	28	480	780	24,000	--	--
	11/13/1995	--	a, b	247.06	4.5	24.5	8.78	--	238.29	11,000	570	17	260	410	25,000	--
2/23/1996	--	d	247.06	4.5	24.5	--	--	--	--	--	--	--	--	--	--	--
MW-2																
	3/15/1995	--	249.3	5.0	17.5	8.25	--	241.05	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	5/30/1995	--	249.3	5.0	17.5	9.93	--	239.37	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	9/1/1995	--	249.3	5.0	17.5	10.69	--	238.61	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
	11/13/1995	--	249.3	5.0	17.5	10.32	--	238.98	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
2/23/1996	--	d	249.3	5.0	17.5	--	--	--	--	--	--	--	--	--	--	--
MW-3																
	3/15/1995	--	248.35	5.0	24.5	6.76	--	241.59	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	5/30/1995	--	248.35	5.0	24.5	7.81	--	240.54	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
	9/1/1995	--	248.35	5.0	24.5	8.65	--	239.7	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
	11/13/1995	--	248.35	5.0	24.5	8.25	--	240.1	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	--	240.4	--	--	--	--	--	--	--	--
	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	--	240.1	--	--	--	--	--	--	--	--
	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	8.2	--	240.15	--	--	--	--	--	--	--	--
	7/28/1998	--	248.35	5.0	24.5	8.55	--	239.8	--	--	--	--	--	--	--	--

**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>MW-3 Cont.</b>															
10/27/1998	--		248.35	5.0	24.5	8.3	--	240.05	--	--	--	--	--	--	--
2/8/1999	--		248.35	5.0	24.5	7.9	--	240.45	<50	<0.5	<0.5	<0.5	<0.5	<3	--
6/1/1999	--		248.35	5.0	24.5	8.4	--	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	--	240.8	--	--	--	--	--	--	2.1
8/17/2000	--		248.35	5.0	24.5	8.65	--	239.7	--	--	--	--	--	--	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	8.6	--	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	--	241.4	--	--	--	--	--	--	--
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	8.4	--	239.95	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.7
6/3/2003	--		248.35	5.0	24.5	8.4	--	239.95	--	--	--	--	--	--	--
8/14/2003	--		248.35	5.0	24.5	8.6	--	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
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
12/02/2005	--		253.88	5.0	24.5	8.15	--	245.73	--	--	--	--	--	--	--
02/15/2006	--		253.88	5.0	24.5	8.23	--	245.65	--	--	--	--	--	--	--
5/19/2006	--		253.88	5.0	24.5	8.38	--	245.50	--	--	--	--	--	--	--

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

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

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
MW-3 Cont.									<50	<0.50	<0.50	<0.50	<0.50	<0.50		
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
MW-4																
3/15/1995	--		242.91	4.5	24.5	9.37	--	233.54	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
5/30/1995	--		242.91	4.5	24.5	11.47	--	231.44	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
9/1/1995	--		242.91	4.5	24.5	12.28	--	230.63	78	<0.5	0.7	<0.5	<0.5	<3	--	--
11/13/1995	--		242.91	4.5	24.5	11.75	--	231.16	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
2/23/1996	--		242.91	4.5	24.5	8.51	--	234.4	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	9.7	--	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	--	231.4	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
8/5/1997	--		242.91	4.5	24.5	11.9	--	231.01	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
10/29/1997	--		242.91	4.5	24.5	12	--	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	11.4	--	231.51	<5,000	<50	<50	160	64	6,400	--	--
2/8/1999	--		242.91	4.5	24.5	8.4	--	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	--	230.7	<50	<0.5	<0.5	<0.5	<0.5	<3	1.29	6.34
10/29/1999	NP		242.91	4.5	24.5	12.37	--	230.54	<50	<0.5	<0.5	<0.5	<0.5	<1	1.5	5.60
2/16/2000	NP		242.91	4.5	24.5	7.45	--	235.46	<50	<0.5	<0.5	<0.5	<1	<3	2.38	--
6/23/2000	NP		242.91	4.5	24.5	12.31	--	230.6	<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	10.8	--	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	--	--

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>																
7/18/2001	NP		242.91	4.5	24.5	8.51	--	234.4	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
10/1/2001	NP		242.91	4.5	24.5	8.71	--	234.2	<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	10.1	--	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	--	230.9	<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	--	230.5	<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
<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	--	231.6	16,000	420	14	870	390	1,500	--	--

**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>															
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	13.1	--	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	--	231.7	15,000	68	<10	690	620	1,000	--
10/27/1998	--		244.82	5.0	24.5	12.9	--	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	13.1	--	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	12.9	--	231.92	9,680	38	<20.0	212	114	930	1.4
8/17/2000	NP		244.82	5.0	24.5	13	--	231.82	10,500	15	7.98	223	118	430	0.68
11/10/2000	NP		244.82	5.0	24.5	12.5	--	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	12.5	--	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	--	232.2	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

**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>																
05/05/2004	NP	j	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		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
<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	7.7	--	--	<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	--		252.2	17.0	31.5	11.11	--	241.09	--	--	--	--	--	--	--	--
11/8/1996	--		252.2	17.0	31.5	9.31	--	242.89	--	--	--	--	--	--	--	--
3/21/1997	--		252.2	17.0	31.5	9.4	--	242.8	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/27/1997	--		252.2	17.0	31.5	7.08	--	245.12	--	--	--	--	--	--	--	--
8/5/1997	--		252.2	17.0	31.5	7.12	--	245.08	--	--	--	--	--	--	--	--
10/29/1997	--		252.2	17.0	31.5	7.42	--	244.78	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/25/1998	--		252.2	17.0	31.5	10.35	--	241.85	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/12/1998	--		252.2	17.0	31.5	15.83	--	236.37	--	--	--	--	--	--	--	--
7/28/1998	--		252.2	17.0	31.5	11.84	--	240.36	--	--	--	--	--	--	--	--
10/27/1998	--		252.2	17.0	31.5	9.73	--	242.47	--	--	--	--	--	--	--	--
2/8/1999	--		252.2	17.0	31.5	8.1	--	244.1	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/1/1999	--		252.2	17.0	31.5	17.84	--	234.36	--	--	--	--	--	--	--	--
8/25/1999	--		252.2	17.0	31.5	11	--	241.2	--	--	--	--	--	--	0.77	--
10/29/1999	--		252.2	17.0	31.5	9.03	--	243.17	--	--	--	--	--	--	3.42	--

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

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

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
<b>MW-6 Cont.</b>																
2/16/2000	P		252.2	17.0	31.5	7.71	--	244.49	<50	<0.5	<0.5	<0.5	<1	<3	2.42	--
6/23/2000	--		252.2	17.0	31.5	6.69	--	245.51	--	--	--	--	--	--	2.3	--
8/17/2000	--		252.2	17.0	31.5	6.95	--	245.25	--	--	--	--	--	--	2.51	--
11/10/2000	--		252.2	17.0	31.5	11.79	--	240.41	--	--	--	--	--	--	--	--
2/12/2001	--	f	--	17.0	31.5	--	--	--	--	--	--	--	--	--	--	--
2/12/2001	P		252.2	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	--		252.2	17.0	31.5	10.52	--	241.68	--	--	--	--	--	--	--	--
7/18/2001	--		252.2	17.0	31.5	11.03	--	241.17	--	--	--	--	--	--	--	--
10/1/2001	--		252.2	17.0	31.5	11.31	--	240.89	--	--	--	--	--	--	--	--
1/14/2002	P		252.2	17.0	31.5	9.87	--	242.33	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
4/3/2002	--		252.2	17.0	31.5	12.19	--	240.01	--	--	--	--	--	--	--	--
8/8/2002	--		252.2	17.0	31.5	7.04	--	245.16	--	--	--	--	--	--	--	--
11/27/2002	--		252.2	17.0	31.5	6.85	--	245.35	--	--	--	--	--	--	--	--
2/10/2003	NP		252.2	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	--		252.2	17.0	31.5	14.35	--	237.85	--	--	--	--	--	--	--	--
8/14/2003	--		252.2	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
<b>MW-7</b>																
8/9/1996	--	g	235.95	8.5	13.5	--	--	--	--	--	--	--	--	--	--	--

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>																
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	10.5	--	225.45	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
10/27/1998	--		235.95	8.5	13.5	8.75	--	227.2	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/8/1999	--		235.95	8.5	13.5	9.35	--	226.6	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/1/1999	NP		235.95	8.5	13.5	9.85	--	226.1	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	--	224.1	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	12.1	--	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	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
7/18/2001	P		235.95	8.5	13.5	8.2	--	227.75	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
10/1/2001	NP		235.95	8.5	13.5	8.59	--	227.36	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
1/14/2002	P		235.95	8.5	13.5	6.93	--	229.02	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
4/3/2002	P		235.95	8.5	13.5	8.31	--	227.64	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
8/8/2002	P	h	235.95	8.5	13.5	12.11	--	223.84	--	--	--	--	--	--	--	--
11/27/2002	NP	h	235.95	8.5	13.5	13.01	--	222.94	--	--	--	--	--	--	--	--
2/10/2003	NP		235.95	8.5	13.5	10.02	--	225.93	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	6.7
6/3/2003	NP		235.95	8.5	13.5	6.82	--	229.13	<50	<0.50	<0.50	<0.50	<0.50	<0.50	8.1	6.8
8/14/2003	P		235.95	8.5	13.5	8.16	--	227.79	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.8	6.7
11/13/2003	--		235.95	8.5	13.5	8.07	--	227.88	--	--	--	--	--	--	--	--
02/13/2004	--		241.64	8.5	13.5	7.62	--	234.02	--	--	--	--	--	--	--	--

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>																
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
<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	9.3	--	231.07	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/8/1999	--		240.37	5.5	14.0	5.56	--	234.81	<50	<0.5	<0.5	<0.5	<0.5	<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	6.4	--	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	--

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	Ethy-Benzene	Total Xylenes	MtBE		
<b>MW-8 Cont.</b>																
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	--	235.3	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
4/3/2002	P		240.37	5.5	14.0	8.6	--	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	--	--	--	--	--	--	--	--
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
<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	6.8	--	--	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	--	--	--	--	--	--	--	--	--	--

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 ( $\mu\text{g/L}$ )					DO (mg/L)	pH	
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
<b>VW-1 Cont.</b>																
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	--	--	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	--
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	6.5	--	--	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	7.3	--	--	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

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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 ( $\mu\text{g/L}$ )					DO (mg/L)	pH	
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
<b>VW-1 Cont.</b>																
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
<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	8.8	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--
<b>VW-4</b>																
5/10/1996	--		--	5.5	14.5	8.58	--	--	13,000	2,500	41	420	660	43,000	--	--

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

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

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)					DO (mg/L)	pH	
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
<b>VW-4 Cont.</b>																
8/9/1996	--		--	5.5	14.5	11.7	--	--	<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	7.5	--	--	<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	7.8	--	--	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	9.6	--	--	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	10.3	--	--	<10,000	<100	<100	<100	<100	3,800	1.7	6.7
2/10/2003	NP		--	5.5	14.5	10.06	--	--	<5,000	<50	<50	<50	<50	2,500	1	6.8
6/3/2003	--		--	5.5	14.5	10.04	--	--	<1,000	<10	<10	<10	<10	440	1.9	6.6

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

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

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet msl)	Concentrations in (µg/L)					DO (mg/L)	pH	
									GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
VW-4 Cont.																
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

**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.

**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 ( $\mu\text{g/L}$ )								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	
<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	
<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	
<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	

Table 2. Summary of Fuel Additives Analytical Data

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

Well and Sample Date	Concentrations in ( $\mu\text{g/L}$ )								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	I,2-DCA	EDB	
<b>MW-6 Cont.</b>									
8/25/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<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	--	--	--	--	--	--	--	--	
8/25/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	Well inaccessible
<b>VW-1</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	

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

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
VW-3									
VW-4									
2/10/2003	<4,000	<2,000	2500	<0.50	<0.50	<0.50	--	--	
6/3/2003	<2,000	4,100	440	<10	<10	<10	--	--	
8/14/2003	<1,000	3,200	170	<5.0	<5.0	<5.0	<5.0	<5.0	
11/13/2003	<1,000	3,300	130	<5.0	<5.0	<5.0	--	--	
02/13/2004	<500	1,300	210	<2.5	<2.5	<2.5	<2.5	<2.5	
05/05/2004	<200	1,500	66	<1.0	1.3	<1.0	<1.0	<1.0	
08/30/2004	<1,000	5,400	220	<5.0	5.4	<5.0	<5.0	<5.0	
11/08/2004	<500	2,700	140	<2.5	<2.5	<2.5	<2.5	<2.5	
02/07/2005	<100	1,000	47	<0.50	0.89	<0.50	<0.50	<0.50	
05/09/2005	<100	1,200	37	<0.50	0.92	<0.50	<0.50	<0.50	
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	

**SYMBOLS AND ABBREVIATIONS:**

-- = Not analyzed/applicable/measured/available  
< = Not detected at or above the laboratory reporting limit  
1,2-DCA = 1,2-Dichloroethane  
DPE = Di-isopropyl ether  
EDB = 1,2-Dibromoethane  
ETBE = Ethyl tert-butyl ether  
MTBE = Methyl tert-butyl ether  
TAME = tert-Amyl methyl ether  
TBA = tert-Butyl alcohol  
µg/L = Micrograms per Liter

**FOOTNOTES:**

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

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

**NOTES:**

All volatile organic compounds analyzed using EPA Method 8260B.

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

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

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

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

**Table 3. Historical Ground-Water Flow Direction and Gradient**

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

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
8/11/2005	West	0.07
12/2/2005	Southwest	0.10
2/15/2006	Southwest	0.07
4/28/2006	West	0.07
8/25/2006	West	0.07

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**

**URS GROUND-WATER SAMPLING DATA PACKAGE (INCLUDES LABORATORY  
REPORT AND CHAIN OF CUSTODY DOCUMENTATION, FIELD AND  
LABORATORY PROCEDURES, AND FIELD DATA SHEETS)**

September 26, 2006

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

***Groundwater Sampling Data Package***  
Former ARCO Service Station #6002  
6235 Seminary Avenue  
Oakland, CA  
Field Work Performed: 08/25/06

***General Information***

*Data Submittal Prepared/Reviewed by:* Scott Rice

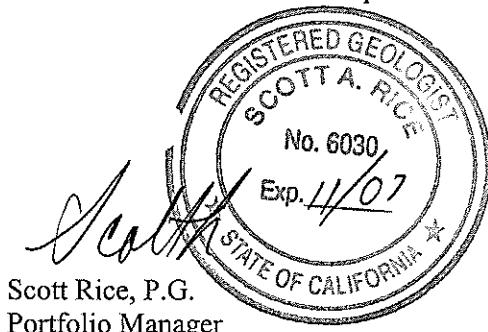
*Phone Number:* 916-679-2095

*On-Site Supplier Representative:* Blaine Tech

*Scope of Work Performed:* Groundwater Monitoring in accordance with 3rd Quarter 2006 protocols as identified in the Quarterly Monitoring Program Table in the Field and Laboratory Procedures Attachment.

*Variations from Work Scope:* None

This submittal presents the tabulation of data collected in association with routine groundwater monitoring. The attachments include, at a minimum, sampling procedures, field data collected, laboratory results, chain of custody documentation, and waste management activities. 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.



Scott Rice, P.G.  
Portfolio Manager

cc: Paul Supple, Atlantic Richfield Company (RM), electronic copy uploaded to ENFOS



## Attachments

Field and Laboratory Procedures

Laboratory Report

Chain of Custody Documentation

Field Data Sheets

    Well Gauging Data

    Well Monitoring Data Sheets

## **FIELD & LABORATORY PROCEDURES**

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### **Sampling Procedures**

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear Teflon™ bailer or an oil-water interface probe. Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

### **Laboratory Procedures**

The groundwater samples were analyzed for the presence of the chemicals mentioned in the chain of custody using standard EPA methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by RM have been reviewed and verified by that laboratory.

13 September, 2006

Lynelle Onishi  
URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland, CA 94612

RE: ARCO #6002, Oakland, CA  
Work Order: MPH0905

Enclosed are the results of analyses for samples received by the laboratory on 08/25/06 18:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Tim Costello For Lisa Race  
Senior Project Manager

CA ELAP Certificate # 1210

The results in this laboratory report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the BPGCLN Technical Specifications, applicable Federal, State, local regulations and certification requirements as well as the methodologies as described in laboratory SOPs reviewed by the BPGCLN. This entire report was reviewed and approved for release.

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #6002, Oakland, CA Project Number: G0C8K-0011 Project Manager: Lynelle Onishi	MPH0905 Reported: 09/13/06 17:35
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-3	MPH0905-01	Water	08/25/06 09:40	08/25/06 18:05
MW-4	MPH0905-02	Water	08/25/06 09:10	08/25/06 18:05
MW-5	MPH0905-03	Water	08/25/06 10:05	08/25/06 18:05
MW-6	MPH0905-04	Water	08/25/06 11:40	08/25/06 18:05
MW-7	MPH0905-05	Water	08/25/06 10:40	08/25/06 18:05
MW-8	MPH0905-06	Water	08/25/06 12:05	08/25/06 18:05
VW-1	MPH0905-07	Water	08/25/06 13:25	08/25/06 18:05
VW-4	MPH0905-08	Water	08/25/06 13:10	08/25/06 18:05
TB-6002-08252006	MPH0905-09	Water	08/25/06 00:00	08/25/06 18:05

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with no custody seals.

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #6002, Oakland, CA Project Number: G0C8K-0011 Project Manager: Lynelle Onishi	MPH0905 Reported: 09/13/06 17:35
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**Total Purgeable Hydrocarbons by GC/MS (CA LUFT)**

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (MPH0905-01) Water Sampled: 08/25/06 09:40 Received: 08/25/06 18:05</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6I02008	09/02/06	09/03/06	LUFT GCMS	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		120 %	60-145		"	"	"	"	
<b>MW-4 (MPH0905-02) Water Sampled: 08/25/06 09:10 Received: 08/25/06 18:05</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6I02008	09/02/06	09/03/06	LUFT GCMS	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		123 %	60-145		"	"	"	"	
<b>MW-5 (MPH0905-03) Water Sampled: 08/25/06 10:05 Received: 08/25/06 18:05</b>									
Gasoline Range Organics (C4-C12)	3700	500	ug/l	10	6I02008	09/02/06	09/03/06	LUFT GCMS	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		129 %	60-145		"	"	"	"	
<b>MW-6 (MPH0905-04) Water Sampled: 08/25/06 11:40 Received: 08/25/06 18:05</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6I02008	09/02/06	09/03/06	LUFT GCMS	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		126 %	60-145		"	"	"	"	
<b>MW-7 (MPH0905-05) Water Sampled: 08/25/06 10:40 Received: 08/25/06 18:05</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6I02008	09/02/06	09/03/06	LUFT GCMS	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		129 %	60-145		"	"	"	"	
<b>MW-8 (MPH0905-06) Water Sampled: 08/25/06 12:05 Received: 08/25/06 18:05</b>									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6I06020	09/06/06	09/07/06	LUFT GCMS	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91 %	60-145		"	"	"	"	
<b>VW-1 (MPH0905-07) Water Sampled: 08/25/06 13:25 Received: 08/25/06 18:05</b>									
Gasoline Range Organics (C4-C12)	50	50	ug/l	1	6I06020	09/06/06	09/07/06	LUFT GCMS	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92 %	60-145		"	"	"	"	

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #6002, Oakland, CA Project Number: G0C8K-0011 Project Manager: Lynelle Onishi	MPH0905 Reported: 09/13/06 17:35
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**Total Purgeable Hydrocarbons by GC/MS (CA LUFT)**

**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>VW-4 (MPH0905-08) Water   Sampled: 08/25/06 13:10   Received: 08/25/06 18:05</b>									
Gasoline Range Organics (C4-C12)	140	50	ug/l	1	6I06020	09/06/06	09/07/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		94 %		60-145	"	"	"	"	

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project: ARCO #6002, Oakland, CA  
Project Number: G0C8K-0011  
Project Manager: Lynelle Onishi

MPH0905  
Reported:  
09/13/06 17:35

### Volatile Organic Compounds by EPA Method 8260B

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (MPH0905-01) Water   Sampled: 08/25/06 09:40   Received: 08/25/06 18:05</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	6I06020	09/06/06	09/06/06	EPA 8260B	"
Benzene	ND	0.50	"	"	"	"	"	"	"
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	"
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
Ethanol	ND	300	"	"	"	"	"	"	"
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Ethylbenzene	ND	0.50	"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Toluene	ND	0.50	"	"	"	"	"	"	"
Xylenes (total)	ND	0.50	"	"	"	"	"	"	"
<i>Surrogate: Dibromofluoromethane</i>		91 %	75-130	"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94 %	60-145	"	"	"	"	"	"
<i>Surrogate: Toluene-d8</i>		90 %	70-130	"	"	"	"	"	"
<i>Surrogate: 4-Bromofluorobenzene</i>		90 %	60-120	"	"	"	"	"	"
<b>MW-4 (MPH0905-02) Water   Sampled: 08/25/06 09:10   Received: 08/25/06 18:05</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	6I06020	09/06/06	09/07/06	EPA 8260B	"
Benzene	ND	0.50	"	"	"	"	"	"	"
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	"
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
Ethanol	ND	300	"	"	"	"	"	"	"
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Ethylbenzene	ND	0.50	"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Toluene	ND	0.50	"	"	"	"	"	"	"
Xylenes (total)	ND	0.50	"	"	"	"	"	"	"
<i>Surrogate: Dibromofluoromethane</i>		90 %	75-130	"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>		91 %	60-145	"	"	"	"	"	"
<i>Surrogate: Toluene-d8</i>		89 %	70-130	"	"	"	"	"	"
<i>Surrogate: 4-Bromofluorobenzene</i>		90 %	60-120	"	"	"	"	"	"

URS Corporation [Arco]  
1333 Broadway, Suite 800  
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Project Number: G0C8K-0011  
Project Manager: Lynelle Onishi

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Reported:  
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### Volatile Organic Compounds by EPA Method 8260B

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>MW-5 (MPH0905-03) Water Sampled: 08/25/06 10:05 Received: 08/25/06 18:05</b>									
tert-Amyl methyl ether	ND	2.5	ug/l	5	6I07008	09/07/06	09/07/06	EPA 8260B	
Benzene	ND	2.5	"	"	"	"	"	"	"
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	"
Di-isopropyl ether	ND	2.5	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	2.5	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	2.5	"	"	"	"	"	"	"
Ethanol	ND	1500	"	"	"	"	"	"	"
Ethyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	"
Ethylbenzene	4.0	2.5	"	"	"	"	"	"	"
Methyl tert-butyl ether	17	2.5	"	"	"	"	"	"	"
Toluene	ND	2.5	"	"	"	"	"	"	"
Xylenes (total)	ND	2.5	"	"	"	"	"	"	"
<i>Surrogate: Dibromofluoromethane</i>	107 %	75-130		"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>	110 %	60-145		"	"	"	"	"	"
<i>Surrogate: Toluene-d8</i>	102 %	70-130		"	"	"	"	"	"
<i>Surrogate: 4-Bromofluorobenzene</i>	90 %	60-120		"	"	"	"	"	"
<b>MW-6 (MPH0905-04) Water Sampled: 08/25/06 11:40 Received: 08/25/06 18:05</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	6I06020	09/06/06	09/07/06	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	"
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	"
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
Ethanol	ND	300	"	"	"	"	"	"	"
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Ethylbenzene	ND	0.50	"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Toluene	ND	0.50	"	"	"	"	"	"	"
Xylenes (total)	ND	0.50	"	"	"	"	"	"	"
<i>Surrogate: Dibromofluoromethane</i>	90 %	75-130		"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>	90 %	60-145		"	"	"	"	"	"
<i>Surrogate: Toluene-d8</i>	91 %	70-130		"	"	"	"	"	"
<i>Surrogate: 4-Bromofluorobenzene</i>	94 %	60-120		"	"	"	"	"	"

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project: ARCO #6002, Oakland, CA  
Project Number: G0C8K-0011  
Project Manager: Lynelle Onishi

MPH0905  
Reported:  
09/13/06 17:35

### Volatile Organic Compounds by EPA Method 8260B

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-7 (MPH0905-05) Water Sampled: 08/25/06 10:40 Received: 08/25/06 18:05</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	6106020	09/06/06	09/07/06	EPA 8260B	"
Benzene	ND	0.50	"	"	"	"	"	"	"
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	"
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
Ethanol	ND	300	"	"	"	"	"	"	"
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Ethylbenzene	ND	0.50	"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Toluene	ND	0.50	"	"	"	"	"	"	"
Xylenes (total)	ND	0.50	"	"	"	"	"	"	"
<i>Surrogate: Dibromofluoromethane</i>	90 %	75-130		"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>	90 %	60-145		"	"	"	"	"	"
<i>Surrogate: Toluene-d8</i>	89 %	70-130		"	"	"	"	"	"
<i>Surrogate: 4-Bromofluorobenzene</i>	92 %	60-120		"	"	"	"	"	"
<b>MW-8 (MPH0905-06) Water Sampled: 08/25/06 12:05 Received: 08/25/06 18:05</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	6106020	09/06/06	09/07/06	EPA 8260B	"
Benzene	ND	0.50	"	"	"	"	"	"	"
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	"
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	"
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	"
Ethanol	ND	300	"	"	"	"	"	"	"
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Ethylbenzene	ND	0.50	"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	"
Toluene	ND	0.50	"	"	"	"	"	"	"
Xylenes (total)	ND	0.50	"	"	"	"	"	"	"
<i>Surrogate: Dibromofluoromethane</i>	91 %	75-130		"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>	91 %	60-145		"	"	"	"	"	"
<i>Surrogate: Toluene-d8</i>	90 %	70-130		"	"	"	"	"	"
<i>Surrogate: 4-Bromofluorobenzene</i>	90 %	60-120		"	"	"	"	"	"

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project: ARCO #6002, Oakland, CA  
Project Number: G0C8K-0011  
Project Manager: Lynelle Onishi

MPH0905  
Reported:  
09/13/06 17:35

### Volatile Organic Compounds by EPA Method 8260B

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>VW-1 (MPH0905-07) Water Sampled: 08/25/06 13:25 Received: 08/25/06 18:05</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	6f06020	09/06/06	09/07/06	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	300	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	8.3	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		93 %	75-130	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92 %	60-145	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		90 %	70-130	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92 %	60-120	"	"	"	"	"	
<b>VW-4 (MPH0905-08) Water Sampled: 08/25/06 13:10 Received: 08/25/06 18:05</b>									
tert-Amyl methyl ether	ND	0.50	ug/l	1	6f06020	09/06/06	09/07/06	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	1900	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	300	"	"	"	"	"	"	
Ethyl tert-butyl ether	1.9	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	17	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		89 %	75-130	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94 %	60-145	"	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		91 %	70-130	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95 %	60-120	"	"	"	"	"	

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #6002, Oakland, CA Project Number: G0C8K-0011 Project Manager: Lynelle Onishi	MPH0905 Reported: 09/13/06 17:35
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**Total Purgeable Hydrocarbons by GC/MS (CA LUFT) - Quality Control**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch 6I02008 - EPA 5030B P/T / LUFT GCMS**

<b>Blank (6I02008-BLK1)</b>	Prepared & Analyzed: 09/02/06								
Gasoline Range Organics (C4-C12)	ND	50	ug/l						
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.88	"		2.50		115	60-145		
<b>Laboratory Control Sample (6I02008-BS1)</b>	Prepared & Analyzed: 09/02/06								
Gasoline Range Organics (C4-C12)	485	50	ug/l	440		110	75-140		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	3.16	"		2.50		126	60-145		
<b>Matrix Spike (6I02008-MS1)</b>	<b>Source: MPH0906-01</b>		Prepared & Analyzed: 09/02/06						
Gasoline Range Organics (C4-C12)	16900	1000	ug/l	8800	12000	56	75-140		LN
<i>Surrogate: 1,2-Dichloroethane-d4</i>	3.52	"		2.50		141	60-145		
<b>Matrix Spike Dup (6I02008-MSD1)</b>	<b>Source: MPH0906-01</b>		Prepared & Analyzed: 09/02/06						
Gasoline Range Organics (C4-C12)	15000	1000	ug/l	8800	12000	34	75-140	12	20
<i>Surrogate: 1,2-Dichloroethane-d4</i>	3.38	"		2.50		135	60-145		

**Batch 6I06020 - EPA 5030B P/T / LUFT GCMS**

<b>Blank (6I06020-BLK1)</b>	Prepared & Analyzed: 09/06/06								
Gasoline Range Organics (C4-C12)	ND	50	ug/l						
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.30	"		2.50		92	60-145		
<b>Laboratory Control Sample (6I06020-BS2)</b>	Prepared & Analyzed: 09/06/06								
Gasoline Range Organics (C4-C12)	494	50	ug/l	440		112	75-140		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.20	"		2.50		88	60-145		
<b>Matrix Spike (6I06020-MS1)</b>	<b>Source: MPH0906-04</b>		Prepared & Analyzed: 09/06/06						
Gasoline Range Organics (C4-C12)	10700	500	ug/l	7000	4500	89	75-140		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.30	"		2.50		92	60-145		

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #6002, Oakland, CA Project Number: G0C8K-0011 Project Manager: Lynelle Onishi	MPH0905 Reported: 09/13/06 17:35
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**Total Purgeable Hydrocarbons by GC/MS (CA LUFT) - Quality Control**

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6I06020 - EPA 5030B P/T / LUFT GCMS**

Matrix Spike Dup (6I06020-MSD1)	Source: MPH0906-04	Prepared & Analyzed: 09/06/06							
Gasoline Range Organics (C4-C12)	10400	500	ug/l	7000	4500	84	75-140	3	20
Surrogate: 1,2-Dichloroethane-d4	2.27		"	2.50		91	60-145		

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #6002, Oakland, CA Project Number: G0C8K-0011 Project Manager: Lynelle Onishi	MPH0905 Reported: 09/13/06 17:35
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6I06020 - EPA 5030B P/T / EPA 8260B**

Blank (6I06020-BLK1)		Prepared & Analyzed: 09/06/06					
tert-Amyl methyl ether	ND	0.50	ug/l				
Benzene	ND	0.50	"				
tert-Butyl alcohol	ND	20	"				
Di-isopropyl ether	ND	0.50	"				
1,2-Dibromoethane (EDB)	ND	0.50	"				
1,2-Dichloroethane	ND	0.50	"				
Ethanol	ND	300	"				
Ethyl tert-butyl ether	ND	0.50	"				
Ethylbenzene	ND	0.50	"				
Methyl tert-butyl ether	ND	0.50	"				
Toluene	ND	0.50	"				
Xylenes (total)	ND	0.50	"				
<i>Surrogate: Dibromofluoromethane</i>	2.27	"	2.50		91	75-130	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.30	"	2.50		92	60-145	
<i>Surrogate: Toluene-d8</i>	2.26	"	2.50		90	70-130	
<i>Surrogate: 4-Bromofluorobenzene</i>	2.26	"	2.50		90	60-120	

Laboratory Control Sample (6I06020-BS1)		Prepared & Analyzed: 09/06/06					
tert-Amyl methyl ether	10.4	0.50	ug/l	10.0	104	65-135	
Benzene	9.50	0.50	"	10.0	95	70-125	
tert-Butyl alcohol	177	20	"	200	88	60-135	
Di-isopropyl ether	10.4	0.50	"	10.0	104	70-130	
1,2-Dibromoethane (EDB)	9.94	0.50	"	10.0	99	80-125	
1,2-Dichloroethane	10.0	0.50	"	10.0	100	75-125	
Ethanol	214	300	"	200	107	15-150	
Ethyl tert-butyl ether	10.4	0.50	"	10.0	104	65-130	
Ethylbenzene	10.2	0.50	"	10.0	102	70-130	
Methyl tert-butyl ether	10.6	0.50	"	10.0	106	50-140	
Toluene	10.1	0.50	"	10.0	101	70-120	
Xylenes (total)	31.9	0.50	"	30.0	106	80-125	
<i>Surrogate: Dibromofluoromethane</i>	2.28	"	2.50		91	75-130	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.24	"	2.50		90	60-145	
<i>Surrogate: Toluene-d8</i>	2.28	"	2.50		91	70-130	
<i>Surrogate: 4-Bromofluorobenzene</i>	2.35	"	2.50		94	60-120	

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #6002, Oakland, CA Project Number: G0C8K-0011 Project Manager: Lynelle Onishi	MPH0905 Reported: 09/13/06 17:35
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Limit Notes
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**Batch 6I06020 - EPA 5030B P/T / EPA 8260B**

Matrix Spike (6I06020-MS1)	Source: MPH0906-04		Prepared & Analyzed: 09/06/06					
tert-Amyl methyl ether	103	5.0	ug/l	100	ND	103	65-135	
Benzene	96.9	5.0	"	100	2.9	94	70-125	
tert-Butyl alcohol	1690	200	"	2000	ND	84	60-135	
Di-isopropyl ether	104	5.0	"	100	ND	104	70-130	
1,2-Dibromoethane (EDB)	100	5.0	"	100	ND	100	80-125	
1,2-Dichloroethane	101	5.0	"	100	ND	101	75-125	
Ethanol	2430	3000	"	2000	ND	122	15-150	
Ethyl tert-butyl ether	104	5.0	"	100	ND	104	65-130	
Ethylbenzene	175	5.0	"	100	73	102	70-130	
Methyl tert-butyl ether	104	5.0	"	100	ND	104	50-140	
Toluene	105	5.0	"	100	1.8	103	70-120	
Xylenes (total)	329	5.0	"	300	16	104	80-125	
<i>Surrogate: Dibromoiodomethane</i>	2.29		"	2.50		92	75-130	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.30		"	2.50		92	60-145	
<i>Surrogate: Toluene-d8</i>	2.33		"	2.50		93	70-130	
<i>Surrogate: 4-Bromofluorobenzene</i>	2.33		"	2.50		93	60-120	

Matrix Spike Dup (6I06020-MSD1)	Source: MPH0906-04		Prepared & Analyzed: 09/06/06					
tert-Amyl methyl ether	99.7	5.0	ug/l	100	ND	100	65-135	3 25
Benzene	92.0	5.0	"	100	2.9	89	70-125	5 15
tert-Butyl alcohol	1740	200	"	2000	ND	87	60-135	3 35
Di-isopropyl ether	99.5	5.0	"	100	ND	100	70-130	4 35
1,2-Dibromoethane (EDB)	96.3	5.0	"	100	ND	96	80-125	4 15
1,2-Dichloroethane	95.5	5.0	"	100	ND	96	75-125	6 10
Ethanol	2840	3000	"	2000	ND	142	15-150	16 35
Ethyl tert-butyl ether	101	5.0	"	100	ND	101	65-130	3 35
Ethylbenzene	173	5.0	"	100	73	100	70-130	1 15
Methyl tert-butyl ether	100	5.0	"	100	ND	100	50-140	4 25
Toluene	98.3	5.0	"	100	1.8	96	70-120	7 15
Xylenes (total)	324	5.0	"	300	16	103	80-125	2 15
<i>Surrogate: Dibromoiodomethane</i>	2.27		"	2.50		91	75-130	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.27		"	2.50		91	60-145	
<i>Surrogate: Toluene-d8</i>	2.30		"	2.50		92	70-130	
<i>Surrogate: 4-Bromofluorobenzene</i>	2.34		"	2.50		94	60-120	

URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland CA, 94612	Project: ARCO #6002, Oakland, CA Project Number: G0C8K-0011 Project Manager: Lynelle Onishi	MPH0905 Reported: 09/13/06 17:35
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes
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**Batch 6I07008 - EPA 5030B P/T / EPA 8260B**

<b>Blank (6I07008-BLK1)</b>		Prepared & Analyzed: 09/07/06					
tert-Amyl methyl ether	ND	0.50	ug/l				
Benzene	ND	0.50	"				
tert-Butyl alcohol	ND	5.0	"				
Di-isopropyl ether	ND	0.50	"				
1,2-Dibromoethane (EDB)	ND	0.50	"				
1,2-Dichloroethane	ND	0.50	"				
Ethanol	ND	300	"				
Ethyl tert-butyl ether	ND	0.50	"				
Ethylbenzene	ND	0.50	"				
Methyl tert-butyl ether	ND	0.50	"				
Toluene	ND	0.50	"				
Xylenes (total)	ND	0.50	"				
<i>Surrogate: Dibromoiodomethane</i>	2.56	"	2.50		102	75-130	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.59	"	2.50		104	60-145	
<i>Surrogate: Toluene-d8</i>	2.24	"	2.50		90	70-130	
<i>Surrogate: 4-Bromofluorobenzene</i>	2.22	"	2.50		89	60-120	

<b>Laboratory Control Sample (6I07008-BS1)</b>		Prepared & Analyzed: 09/07/06					
tert-Amyl methyl ether	10.7	0.50	ug/l	10.0		107	65-135
Benzene	9.79	0.50	"	10.0		98	70-125
tert-Butyl alcohol	188	20	"	200		94	60-135
Di-isopropyl ether	10.2	0.50	"	10.0		102	70-130
1,2-Dibromoethane (EDB)	10.5	0.50	"	10.0		105	80-125
1,2-Dichloroethane	9.94	0.50	"	10.0		99	75-125
Ethanol	196	300	"	200		98	15-150
Ethyl tert-butyl ether	10.4	0.50	"	10.0		104	65-130
Ethylbenzene	10.9	0.50	"	10.0		109	70-130
Methyl tert-butyl ether	10.1	0.50	"	10.0		101	50-140
Toluene	10.3	0.50	"	10.0		103	70-120
Xylenes (total)	34.0	0.50	"	30.0		113	80-125
<i>Surrogate: Dibromoiodomethane</i>	2.51	"	2.50		100	75-130	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.50	"	2.50		100	60-145	
<i>Surrogate: Toluene-d8</i>	2.51	"	2.50		100	70-130	
<i>Surrogate: 4-Bromofluorobenzene</i>	2.55	"	2.50		102	60-120	

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project: ARCO #6002, Oakland, CA  
Project Number: G0C8K-0011  
Project Manager: Lynelle Onishi

MPH0905  
Reported:  
09/13/06 17:35

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
<b>Batch 6I07008 - EPA 5030B P/T / EPA 8260B</b>										
<b>Matrix Spike (6I07008-MS1)</b>										
Source: MPH0905-03      Prepared & Analyzed: 09/07/06										
tert-Amyl methyl ether	55.2	2.5	ug/l	50.0	ND	110	65-135			
Benzene	51.4	2.5	"	50.0	ND	103	70-125			
tert-Butyl alcohol	1020	100	"	1000	33	99	60-135			
Di-isopropyl ether	52.0	2.5	"	50.0	ND	104	70-130			
1,2-Dibromoethane (EDB)	51.9	2.5	"	50.0	ND	104	80-125			
1,2-Dichloroethane	45.9	2.5	"	50.0	ND	92	75-125			
Ethanol	970	1500	"	1000	ND	97	15-150			
Ethyl tert-butyl ether	53.5	2.5	"	50.0	ND	107	65-130			
Ethylbenzene	59.4	2.5	"	50.0	4.0	111	70-130			
Methyl tert-butyl ether	66.6	2.5	"	50.0	17	99	50-140			
Toluene	53.4	2.5	"	50.0	1.2	104	70-120			
Xylenes (total)	172	2.5	"	150	ND	115	80-125			
<i>Surrogate: Dibromoiodomethane</i>	2.41		"	2.50		96	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.27		"	2.50		91	60-145			
<i>Surrogate: Toluene-d8</i>	2.51		"	2.50		100	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.36		"	2.50		94	60-120			
<b>Matrix Spike Dup (6I07008-MSD1)</b>										
Source: MPH0905-03      Prepared & Analyzed: 09/07/06										
tert-Amyl methyl ether	55.0	2.5	ug/l	50.0	ND	110	65-135	0.4	25	
Benzene	49.2	2.5	"	50.0	ND	98	70-125	4	15	
tert-Butyl alcohol	1020	100	"	1000	33	99	60-135	0	35	
Di-isopropyl ether	51.5	2.5	"	50.0	ND	103	70-130	1	35	
1,2-Dibromoethane (EDB)	52.2	2.5	"	50.0	ND	104	80-125	0.6	15	
1,2-Dichloroethane	43.8	2.5	"	50.0	ND	88	75-125	5	10	
Ethanol	1100	1500	"	1000	ND	110	15-150	13	35	
Ethyl tert-butyl ether	53.4	2.5	"	50.0	ND	107	65-130	0.2	35	
Ethylbenzene	58.0	2.5	"	50.0	4.0	108	70-130	2	15	
Methyl tert-butyl ether	65.2	2.5	"	50.0	17	96	50-140	2	25	
Toluene	52.8	2.5	"	50.0	1.2	103	70-120	1	15	
Xylenes (total)	169	2.5	"	150	ND	113	80-125	2	15	
<i>Surrogate: Dibromoiodomethane</i>	2.33		"	2.50		93	75-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.19		"	2.50		88	60-145			
<i>Surrogate: Toluene-d8</i>	2.50		"	2.50		100	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.45		"	2.50		98	60-120			

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project: ARCO #6002, Oakland, CA  
Project Number: G0C8K-0011  
Project Manager: Lynelle Onishi

MPH0905  
Reported:  
09/13/06 17:35

#### Notes and Definitions

LN MS and/or MSD below acceptance limits. See Blank Spike(LCS).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference



# Chain of Custody Record

Page 1 of 1

Project Name: Analytical for QMR sampling

BP BU/AR Region/Enfos Segment: BP > Americas > West Coast > Retail > WCBU > CA > Central > 6002 > HistoricalBL

State or Lead Regulatory Agency: California Regional Water Quality Control Board - San Fr

Requested Due Date (mm/dd/yy): 10 Day TAT

BTS# 060825-SC1

On-site Time:	0848	Temp:	65°
Off-site Time:	1330 1345	Temp:	75°
Sky Conditions:	Cloudy		
Meteorological Events:			
Wind Speed:		Direction:	

Lab Name: Sequoia	BP/AR Facility No.: 6002	Consultant/Contractor: URS
Address: 885 Jarvis Drive	BP/AR Facility Address: 6235 Seminary Ave., Oakland, CA 94605	Address: 1333 Broadway, Suite 800
Morgan Hill, CA 95037	Site Lat/Long: 37.780021 / -122.173	Oakland, CA 94612
Lab PM: Lisa Race / Katt Min	California Global ID No.: T0600100105	Consultant/Contractor Project No.: 38487539
Tele/Fax: 408.782.8156 / 408.782.6308	Enfos Project No.: G0C8K-0011	Consultant/Contractor PM: Barb Jakub
BP/AR PM Contact: Paul Supple	Provision or RCOP: Provision	Tele/Fax: 510.874.3296 / 510.874.3268
Address: P.O. Box 6549	Phase/WBS: 04 - Mon/Remed by Natural Attenuation	Report Type & QC Level: Level 1 with EDF
Moraga, CA 94570	Sub Phase/Task: 03 - Analytical	E-mail BDD To: jane.field@urscorp.com
Tele/Fax: 925.299.8891 / 925.299.8872	Cost Element: 05 - Subcontracted Costs	Invoice to: Atlantic Richfield Company
Lab Bottle Order No: 6002		

PPH0905

Sample Point Lat/Lng and  
Comments

Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Matrix	Laboratory No.	No. of Containers	Preservative				Requested Analysis				Comments	
									Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	Methanol	GRO/BTEX (8260)	MTBE, TAME, ETBE (8260)	DIPR, TBA (8260)	ADB, 1,2-DCA (8260)	Ethanol (8260)
1	MW-3	0940	08/28/06	X		Air	01	3				X		X	X	X		
2	MW-4	0910		X			02	3			X		X	X	X	X		
3	MW-5	1005		X			03	3			X		X	X	X	X		
4	MW-6	1140		X			04	3			X		X	X	X	X		
5	MW-7	1040		X			05	3			X		X	X	X	X		
6	MW-8	1205		X			06	3			X		X	X	X	X		
7	VW-1	1325		X			07	3			X		X	X	X	X		
8	VW-4	1310		X			08	3			X		X	X	X	X		
9	TB-6002-08252006	—	—	X			09	2			X						ON HOLD	
10																		

#### Relinquished By / Affiliation

Miller/TBS  
Atlantic Richfield Co.  
Sampled on 08/28/06

Sampler's Name: S. Carmack

Sampler's Company: Blaine Tech Service

Shipment Date:

Shipment Method:

Shipment Tracking No:

Special Instructions: CC to [abmiller@broadbentinc.com](mailto:abmiller@broadbentinc.com)

BPEOF

Date	Time	Accepted By / Affiliation	Date	Time
08/28/06	1430	J. G. Lee - B75	08/28/06	1430
08/28/06	1710		08/28/06	1700
08/28/06	1805	J. Deacon May - UR	08/25/06	1801

Custody Seals In Place Yes

No

Temp Blank Yes  No

Cooler Temperature on Receipt 71 °F/C

Trip Blank Yes  No

# SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: ISP  
 REC. BY (PRINT) PH  
 WORKORDER: MPH 6905

DATE REC'D AT LAB: 8/25/06  
 TIME REC'D AT LAB: 1805  
 DATE LOGGED IN: 8-27-06

For Regulatory Purposes?  
 DRINKING WATER YES  NO   
 WASTE WATER YES  NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERV ATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s): Present / Absent Intact / Broken*									
2. Chain-of-Custody: Present / Absent*									
3. Traffic Reports or Packing List: Present / Absent									
4. Airbill: Airbill / Sticker Present / Absent									
5. Airbill #:									
6. Sample Labels: Present / Absent									
7. Sample IDs: Listed / Not Listed on Chain-of-Custody									
8. Sample Condition: Intact / Broken* / Leaking*									
9. Does information on chain-of-custody, traffic reports and sample labels agree? Yes / No*									
10. Sample received within hold time? Yes / No*									
11. Adequate sample volume received? Yes / No*									
12. Proper preservatives used? Yes / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes / No*									
14. Read Temp: Corrected Temp: Is corrected temp 4 +/- 2°C? (Acceptance range for samples requiring thermal pres.) **Exception (if any): METALS / DFF ON ICE or Problem COC									

\*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

**WELL GAUGING DATA**

Project # 060825-SC1 Date 08/25/06 Client ARCO 6002

Site 6235 Seminary Ave. Oakland, CA

Well ID	Well Size (in.)	<u>Time</u> <del>Sheen / Odor(s)</del>	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-3	4	0931				8.59	24.40		NP@5'
MW-4	4	0902				12.28	24.19		NP@4.5'
MW-5	4	0954				12.62	24.52		NP@5'
MW-6	2	(S) <del>1050</del>			<del>9.45</del> <sup>6.75</sup>	31.88			
MW-7	2	1023				12.19	13.28		NP@10'
MW-8	2	(S) <del>1100</del>			9.45		10.22		
VW-1	4	0942				7.48	13.98		
VW-3	4	0917				8.95	14.22		6.0
VW-4	4	0947			<del>9.87</del> <sup>10.63</sup>	15.01			<del>6.0</del>

# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060825-SC1	Station # 6235 Seminary Ave. Oakland, CA		
Sampler: SC	Date: 08/25/06		
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8		
Total Well Depth: 24.40	Depth to Water: 8.59		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI	HACH

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

Purge Method:  Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

NP@5'		X	=	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume
Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed
0915	67.5	6.2	510	—
0940				clear, no odor

Did well dewater? Yes  No Gallons actually evacuated: \_\_\_\_\_

Sampling Time: 0940 Sampling Date: 08/25/06

Sample I.D.: MW-3 Laboratory: Pace Sequoia Other TA

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other: \_\_\_\_\_

D.O. (if req'd): Pre-purge: mg/L Post-purge: 1.15 mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060825-SC1	Station # 6235 Seminary Ave. Oakland, CA		
Sampler: SC	Date: 08/25/06		
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8		
Total Well Depth: 24.19	Depth to Water: 12.28		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI	HACH

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

Purge Method:  Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<i>NP @ 4.5'</i>		X	=	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume
Time	Temp (°F)	pH	Conductivity (mS or $\mu\text{S}$ )	Gals. Removed

0905	70.7	5.7	347	—	Clear; no odor

Did well dewater? Yes	No	Gallons actually evacuated: —
Sampling Time: 0910	Sampling Date: 08/29/06	

Sample I.D.: MW-4	Laboratory: Pace	Sequoia	Other: TA
Analyzed for: GRO BTEX MTBE DRO Oxy <sub>a</sub> 1,2-DCA EDB Ethanol	Other:		

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.51 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060828-SC1	Station # 6235 Seminary Ave. Oakland, CA	
Sampler: SC	Date: 08/25/06	
Well I.D.: MW-S	Well Diameter: 2 3 (4) 6 8	
Total Well Depth: 24.52	Depth to Water: 12.62	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method:  Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: NPOE S If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

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

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1000	65.8	6.2	557	—	clear; strong odor

Did well dewater? Yes  No Gallons actually evacuated: \_\_\_\_\_

Sampling Time: 1005 Sampling Date: 08/25/06

Sample I.D.: MW-S Laboratory: Pace Sequoia Other TA

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other: \_\_\_\_\_

D.O. (if req'd): Pre-purge: mg/L Post-purge: 1.15 mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060825-SC1	Station # 6235 Seminary Ave. Oakland, CA		
Sampler: SC	Date: 08/25/06		
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8		
Total Well Depth: 31.88	Depth to Water: 6.75		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI	HACH

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

Purge Method: Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

$$\begin{array}{r}
 4.1 \\
 \times \quad 3 \\
 \hline
 12.3 \quad \text{Gals.}
 \end{array}
 \quad \text{1 Case Volume (Gals.)} \quad \text{Specified Volumes} \quad \text{Calculated Volume}$$

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1117	68.1	6.4	408	4.1	clay lt. brownish
1124	67.8	6.5	405	8.2	" " "
1130	67.5	6.6	404	12.3	" " "

Did well dewater? Yes  No Gallons actually evacuated: 12.3

Sampling Time: 1140 Sampling Date: 08/25/06

Sample I.D.: MW-6 Laboratory: Pace Sequoia Other TA

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other:

D.O. (if req'd): Pre-purge: mg/L Post-purge: 1.90 mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060825-SC1	Station # 6235 Seminary Ave - Oakland, CA																	
Sampler: SC	Date: 08/25/06																	
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8																	
Total Well Depth: 13.28	Depth to Water: 12.19																	
Depth to Free Product:	Thickness of Free Product (feet):																	
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI HACH																
<table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>			Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier															
1"	0.04	4"	0.65															
2"	0.16	6"	1.47															
3"	0.37	Other	radius <sup>2</sup> * 0.163															

Purge Method:  Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: NPO 10' If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

1 Case Volume (Gals.)		X	Specified Volumes	=	Gals.
					Calculated Volume
Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations

1035	64.1	6.2	423	—	Clear; no dr.

Did well dewater? Yes  No Gallons actually evacuated: —

Sampling Time: 10:40 Sampling Date: 08/25/06

Sample I.D.: MW-7 Laboratory: Pace Sequoia Other TA

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other: \_\_\_\_\_

D.O. (if req'd): Pre-purge: mg/L Post-purge: 3.33 mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060825-SC1	Station # 6235 Seminary Ave. - Oakland, CA		
Sampler: SC	Date: 08/25/06		
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8		
Total Well Depth: 10-72	Depth to Water: 9.45		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI	HACH

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

Purge Method: Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

$$\frac{0.2}{\text{1 Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{0.6}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1155	66.9	6.0	364	0.2	clay brown
1157	66.5	6.0	358	0.4	cc cc
1159	66.3	6.0	359	0.6	cc cc

Did well dewater? Yes  No Gallons actually evacuated: 0.6

Sampling Time: 1205 Sampling Date: 08/25/06

Sample I.D.: MW-8 Laboratory: Pace Sequoia Other TA

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other: \_\_\_\_\_

D.O. (if req'd): Pre-purge: mg/L Post-purge: 2.27 mg/L

O.R.P. (if req'd): Pre-purge: mV Post-purge: mV

# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060823-SC 1	Station # 6735 Seminary Ave. Oakland, CA				
Sampler: SC	Date: 08/25/06				
Well I.D.: NW-1	Well Diameter: 2 3 (4) 6 8				
Total Well Depth: 13.98	Depth to Water: 7.48				
Depth to Free Product:	Thickness of Free Product (feet):				
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI HACH			

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

Purge Method:

Bailer

Sampling Method:

Bailer

Disposable Bailer

Disposable Bailer

Positive Air Displacement

Extraction Port

X Electric Submersible

Other: \_\_\_\_\_

Extraction Pump

Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

$$\begin{array}{r}
 4.3 \\
 \times \quad 3 \\
 \hline
 1 \text{ Case Volume (Gals.)} \qquad \text{Specified Volumes} \qquad = \quad 12.9 \text{ Gals.} \\
 \end{array}$$

Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1245	71.2	6.2	462	4.3	brownish; odo -
1246	71.4	6.1	447	8.6	clear; no odo -
1246	Well dewatered	@ 9 gallons			
1320	70.8	6.2	443	—	old brown liquid

Did well dewater? Yes

No

Gallons actually evacuated: 9.0

Sampling Time: 1325

Sampling Date: 08/25/06

Sample I.D.: NW-1

Laboratory: Pace Sequoia Other TA

Analyzed for:

GRO

BTEX

MTBE

DRO

Oxy's

1,2-DCA

EDB

Ethanol

Other: \_\_\_\_\_

D.O. (if req'd):

Pre-purge:

mg/L

Post-purge:

0.49

mg/L

O.R.P. (if req'd):

Pre-purge:

mV

Post-purge:

mV

# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060825-5C1	Station # 6235 Seminary Ave. Oakland, CA		
Sampler: SC	Date: 08/25/06		
Well I.D.: VW-4	Well Diameter: 2 3 4 6 8		
Total Well Depth: 15.0	Depth to Water: 9.8 + 10.03		
Depth to Free Product:	Thickness of Free Product (feet):		
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI	HACH

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

Purge Method: Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

$$\frac{3.433}{1 \text{ Case Volume (Gals.)}} \times \frac{3}{\text{Specified Volumes}} = \frac{10.299}{\text{Calculated Volume}} \text{ Gals.}$$

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1225	69.4	6.4	625	3.3	slightly brownish; odor -
1231	69.8	6.6	628	6.6	sl. sl. faint odor -
*	Well dewatered @ 7.5 gallons				
1305	70.1	6.7	627	—	sl. sl. sl. sl.

Did well dewater?  Yes No Gallons actually evacuated: 7.5

Sampling Time: 1310 Sampling Date: 08/25/06

Sample I.D.: VW-4 Laboratory: Pace Sequoia Other TA

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol	Other:
D.O. (if req'd):	Pre-purge: mg/L Post-purge: 1.14 mg/L
O.R.P. (if req'd):	Pre-purge: mV Post-purge: mV

BP GEM OIL COMPANY TYPE A BILL OF LADING

SOURCE RECORD BILL OF LADING FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

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

Arco 6002

Station #

6235 Seminary Ave. Oakland, CA

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

29.4

added equip.

1.6

any other

rinse water

adjustments

TOTAL GALS.

RECOVERED

31.0

loaded onto

BTS vehicle #

58

BTS event #

060825-JC

time

date

1330

08/25/06

signature

Stoler

\*\*\*\*\*

REC'D AT

time

date

/ /

unloaded by

signature

**bp**  
**WELLHEAD INSPECTION CHECKLIST**  
**BP / GEM**

Page 1 of 1

Date 08/25/06

Site Address 6235 Seminary Ave. Oakland, CA

Job Number 060825-SC1

Technician S. Carmack

Well ID	Well Inspected - No Corrective Action Required	Water Dailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-3	X							
MW-4	X							
MW-5	X							
MW-6	X							
MW-7							X	
MW-8							X	
VW-1	X							
VW-3							X	
VW-4							X	

NOTES: VW-3 => open box (like Christy box - no bolts)

VW-4 => " " (" " " " " ")

MW-7 => green plastic irrigation box

MW-8 => " " " " "

**APPENDIX B**

**GEOTRACKER UPLOAD CONFIRMATION**

6002

## Electronic Submittal Information

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### UPLOADING A GEO\_WELL FILE

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

**Submittal Title:** 3Q06 GEO\_WELL  
**Submittal Date/Time:** 10/20/2006 9:47:02 AM  
**Confirmation Number:** 4744755387

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Logged in as BROADBENT-C  
(CONTRACTOR)

CONTACT SITE [ADMINISTRATOR](#).

## Electronic Submittal Information

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Your EDF file has been successfully uploaded!

**Confirmation Number:** 2521937966

**Date/Time of Submittal:** 10/20/2006 9:41:32 AM

**Facility Global ID:** T0600100105

**Facility Name:** ARCO # 06002

**Submittal Title:** 3Q06 GW Monitoring

**Submittal Type:** GW Monitoring Report

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

ARCO # 06002 6235 SEMINARY AVE OAKLAND, CA 94605	<u>Regional Board - Case #:</u> 01-0113 SAN FRANCISCO BAY RWQCB (REGION 2) <u>Local Agency (lead agency) - Case #:</u> 3942 ALAMEDA COUNTY LOP - (SP)
--	--

CONF #	TITLE	QUARTER
2521937966	3Q06 GW Monitoring	Q3 2006
SUBMITTED BY	SUBMIT DATE	STATUS
Broadbent & Associates, Inc.	10/20/2006	PENDING REVIEW

### SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	8
# FIELD POINTS WITH DETECTIONS	3
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	2
SAMPLE MATRIX TYPES	WATER

### METHOD QA/QC REPORT

METHODS USED	8260FA,8260TPH
TESTED FOR REQUIRED ANALYTES?	Y
LAB NOTE DATA QUALIFIERS	Y

### QA/QC FOR 8021/8260 SERIES SAMPLES

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

### WATER SAMPLES FOR 8021/8260 SERIES

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

**SOIL SAMPLES FOR 8021/8260 SERIES**

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

**FIELD QC SAMPLES**

<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS &gt; REPDL</u>
QCTB SAMPLES	N	0
QCAB SAMPLES	N	0
QCEB SAMPLES	N	0

Logged in as BROADBENT-C (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.